

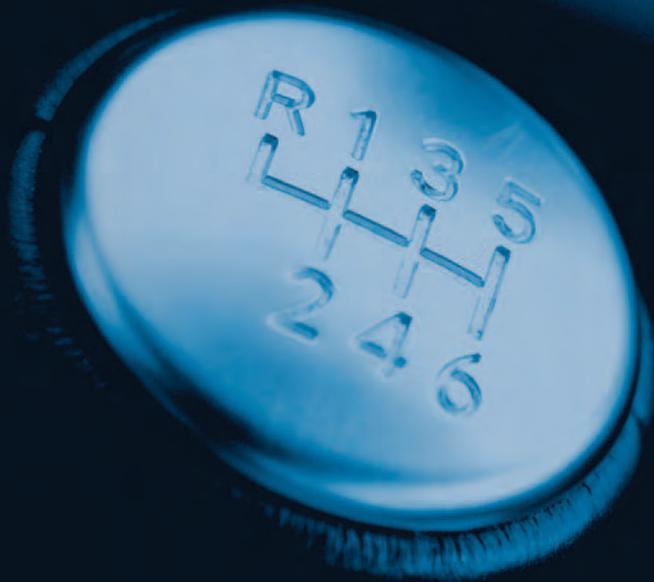
ASSESSING FITNESS TO DRIVE

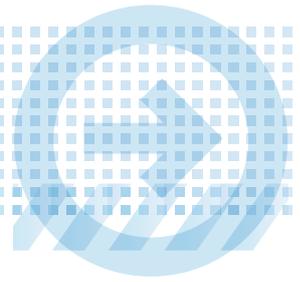
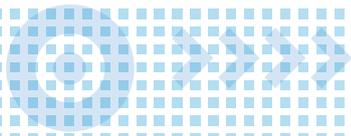
for commercial and private vehicle drivers

medical standards for licensing and
clinical management guidelines

March 2012

as amended up to 30 June 2014





ASSESSING FITNESS TO DRIVE

for commercial and private vehicle drivers



HELP FOR PROFESSIONALS

For guidance in assessing a patient's fitness to drive contact your State or Territory driver licensing authority (see page 149 for details). Information is also available from the Austroads website: www.austroads.com.au

ASSESSING FITNESS TO DRIVE

First Published 1998
Second Edition 2001
Third Edition 2003
Reprinted 2006
Fourth Edition 2012
Reprinted 2013

© Austroads Ltd 2012

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without the prior written permission of Austroads.

National Library of Australia
Cataloguing-in-Publication data:

ASSESSING FITNESS TO DRIVE

ISBN: 978-1-921991-86-8

Austroads Publication Number: AP-G56-13

Design and typesetting: *d fa* Design

Published by Austroads Ltd
Level 9, Robell House
287 Elizabeth Street
Sydney NSW 2000 Australia
Phone: +61 2 9264 7088
Fax: +61 2 9264 1657
Email: austroads@austroads.com.au
www.austroads.com.au

Austroads believes this publication to be correct at the time of printing and does not accept responsibility for any consequences arising from the use of information herein. Readers should rely on their own skill and judgement to apply information to particular issues.

DOCUMENT HISTORY	
1 March 2012	Document first published
16 March 2013	Revision to provide clarification of diabetes diagnosis Part B: Section 3.3.2 and updated Driver Licensing Authority contact details Appendix 8 and Appendix 9
30 June 2014	Revisions to correct axis labelling error on the Bruce Protocol nomogram for women on page 41 and update contact details on page 149



ASSESSING FITNESS TO DRIVE

for commercial and private vehicle drivers

MEDICAL STANDARDS FOR LICENSING

AND

CLINICAL MANAGEMENT GUIDELINES

a resource for health professionals in Australia



MARCH 2012



AUSTROADS

Austrroads' purpose is to:

- promote improved Australian and New Zealand transport outcomes
- provide expert technical input to national policy development on road and road transport issues
- promote improved practice and capability by road agencies.
- promote consistency in road and road agency operations.

Austrroads membership comprises the six state and two territory road transport and traffic authorities, the Commonwealth Department of Infrastructure and Transport, the Australian Local Government Association, and NZ Transport Agency. Austrroads is governed by a Board consisting of the chief executive officer (or an alternative senior executive officer) of each of its eleven member organisations:

- Roads and Maritime Services New South Wales
- Roads Corporation Victoria
- Department of Transport and Main Roads Queensland
- Main Roads Western Australia
- Department of Planning, Transport and Infrastructure South Australia
- Department of Infrastructure, Energy and Resources Tasmania
- Department of Transport Northern Territory
- Department of Territory and Municipal Services Australian Capital Territory
- Commonwealth Department of Infrastructure and Transport
- Australian Local Government Association
- New Zealand Transport Agency.

The success of Austrroads is derived from the collaboration of member organisations and others in the road industry. It aims to be the Australasian leader in providing high quality information, advice and fostering research in the road transport sector.



NATIONAL TRANSPORT COMMISSION

The National Transport Commission (NTC) is an independent statutory body charged with improving the productivity, safety and environmental performance of Australia's road, rail and intermodal transport system.

The NTC develops and submits reform recommendations to the Standing Council on Transport and Infrastructure (SCOTI) which comprises federal, state and territory transport, infrastructure and planning ministers. The NTC also plays a role in coordinating and monitoring implementation of reforms approved by SCOTI.

Over the years, the NTC's work has evolved to meet changing industry reform needs, from technical alignment of regulation to more sophisticated risk-based reforms as part of an integrated and coordinated national policy response. Following its recent review, the NTC's mandate has been expanded to specifically include evaluation and implementation planning.

NTC's vision

Australia's prosperity and community liveability is enhanced by the movement of people and goods.

NTC's mission

To champion and facilitate changes that improve productivity, safety and environmental outcomes.

NTC's role

By developing national regulatory and operational reform and implementation strategies for road, rail and intermodal transport.



ENDORSEMENTS

These standards are endorsed by:

Cardiac Society of Australia and New Zealand

Occupational Therapy Australia

Royal Australian and New Zealand College of Psychiatrists

Australasian Sleep Association

Optometrists Association of Australia

Royal Australian and New Zealand College of Ophthalmologists

Audiological Society of Australia



ACKNOWLEDGEMENTS

The setting of these standards has involved extensive consultation across a wide range of stakeholders, including regulators, employers, unions and health professionals. The National Transport Commission and Austroads gratefully acknowledge all contributors including the members of the reference group and Older Driver/Multiple Medical Conditions Working Group, and the project team and consultants. In particular, the contributions of various health professional organisations and individual health professionals is recognised as invaluable to the review process.

REFERENCE GROUP

Austroads Registration and Licensing Taskforce

Mr David Shelton

Department of Transport and Main Roads Queensland

Ms Trudy Struber

Roads and Maritime Services New South Wales

Ms Irene Siu

Royal Australian College of General Practitioners

Dr Leanne Rowe

Victorian Institute of Forensic Medicine

Dr Morris Odell

Australian Trucking Association

Ms Louise Bilato

Bus Industry Confederation

Mr Michael Apps

Australian Automobile Association

Mr Craig Newland

Transport Workers Union

Mr Eugene Richards

OLDER DRIVER/MULTIPLE MEDICAL CONDITIONS WORKING GROUP

VicRoads

Ms Tricia Williams

Royal Australian College of General Practitioners

Dr Leanne Rowe

Australian and New Zealand Society for Geriatric Medicine

Dr Ian Cameron

Occupational Therapy Australia

Dr Marilyn Di Stefano

Victorian Institute of Forensic Medicine

Dr Morris Odell

Alzheimer's Australia

Ms Anne Eayrs

NATIONAL TRANSPORT COMMISSION

Ms Claire McRae

Ms Lea Morgan

Ms Belinda Irwin

Mr Ben Piper

Dr Jeff Potter

Ms Karen Dowling

Ms Donna Soo



CONTRIBUTING HEALTH PROFESSIONAL ORGANISATIONS

The following organisations contributed substantially to the review process:

Cardiac Society of Australia and New Zealand
Australian Diabetes Society
Epilepsy Society of Australia
Occupational Therapy Australia
Australian and New Zealand Association of Neurologists
Alzheimer’s Australia
Royal Australian and New Zealand College of Psychiatrists
Australian Psychological Society
Australasian Sleep Association
Optometrists Association of Australia
Royal Australian and New Zealand College of Ophthalmologists

CONSULTANTS – Project Health

Dr Bruce Hocking
Ms Fiona Landgren

LEGAL DISCLAIMER

These licensing standards and management guidelines have been compiled using all reasonable care, based on expert medical opinion and relevant literature, and Austroads believes them to be correct at the time of printing. However, neither Austroads nor the authors accept responsibility for any consequences arising from their application.

Health professionals should maintain an awareness of any changes in health care and health technology that may affect their assessment of drivers. Health professionals should also maintain an awareness of changes in the law that may affect their legal responsibilities.

Where there are concerns about a particular set of circumstances relating to ethical or legal issues, advice may be sought from the health professional’s medical defence organisation or legal advisor.

Other queries about the standards should be directed to the relevant driver licensing authority.

FOREWORD

Last year 1,367 Australians were killed on our roads and many tens of thousands seriously injured. The total economic cost of this exceeds \$15 billion annually and the accompanying social costs greatly impact on our communities.

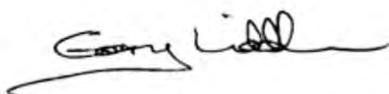
While many factors contribute to safety on the road, driver health is an important consideration and drivers must meet certain medical standards to ensure their health status does not increase their crash risk.

Assessing Fitness to Drive is a joint publication of Austroads and the National Transport Commission (NTC) and details medical standards for driver licensing purposes for use by health professionals and driver licensing authorities. The standards were approved by the Australian Transport Council (ATC), comprising Commonwealth, state and territory transport ministers in 2003, and were last published in 2006.

Medical practice and technology is a dynamic area, and it is important to ensure that medical standards are subject to periodic review to ensure that they remain relevant and meet current needs. To this end, the NTC reviewed the standards, taking into account feedback it had received since the standards were last approved and medical information it had received from medical professionals and consultants. This review culminated in the release, for public comment, of draft revised standards in July 2009 and May 2010. Feedback was received on these drafts from doctors and other health professionals, members of the public, consumer groups, commercial operators and drivers, transport peak bodies, transport unions and government. This intensive consultation process has resulted in this edition of *Assessing Fitness to Drive*.

This edition has now been approved by the Standing Council on Transport and Infrastructure ministers (SCOTI), the successor body to the ATC. It has also been endorsed by the medical organisations listed on page v.

The NTC and Austroads would like to acknowledge the commitment of health professionals to road safety. Health professionals in partnership with drivers, the road transport industry and governments have an important role to play in keeping all road users safe. Together we hope to further reduce deaths and injuries from vehicle crashes on Australian roads.



Gary Liddle
Chairman
Austroads



Greg Martin PSM
Chairman
National Transport Commission

CONTENTS

PART A: GENERAL INFORMATION	1
1. ABOUT THIS PUBLICATION	3
1.1 Purpose	3
1.2 Target audience	3
1.3 Scope	3
1.4 Content	4
1.5 Development and evidence base	5
2. ROLES AND RESPONSIBILITIES	6
2.1 Roles and responsibilities of driver licensing authority	7
2.2 Roles and responsibilities of drivers	8
2.3 Roles and responsibilities of health professionals	8
3. LICENSING AND MEDICAL FITNESS TO DRIVE	11
3.1 Medical standards for private and commercial vehicle drivers	11
3.2 Considerations for commercial vehicle licensing	11
3.3 Prescribed periodic medical examinations for particular licensing/authorisation classes	13
3.4 Conditional licences	13
3.5 Reinstatement of licences or removal of licence conditions	15
4. GENERAL CONSIDERATIONS FOR ASSESSING FITNESS TO DRIVE	16
4.1 Requirements of the driving task	16
4.2 Medical conditions likely to affect fitness to drive	17
4.3 Temporary conditions	18
4.4 Undifferentiated conditions	19
4.5 Multiple conditions and age-related change	19
4.6 Progressive disorders	20
4.7 Congenital conditions	20
4.8 Drugs and driving	20
4.9 Practical driver assessments	22
4.10 Equal employment opportunity (EEO) and discrimination	22
4.11 Information and assistance for patients	23
5. ASSESSMENT AND REPORTING PROCESS	24
5.1 Which forms to use	25
5.2 Steps in the assessment and reporting process	25



PART B: MEDICAL STANDARDS	31
1. BLACKOUTS	33
1.1 Relevance to the driving task	33
1.2 General assessment and management guidelines	33
1.3 Medical standards for licensing	33
2. CARDIOVASCULAR CONDITIONS	37
2.1 Relevance to the driving task	37
2.2 General assessment and management guidelines	37
2.3 Medical standards for licensing	42
3. DIABETES MELLITUS	56
3.1 Relevance to the driving task	56
3.2 General assessment and management guidelines	56
3.3 Medical standards for licensing	58
4. HEARING	63
4.1 Relevance to the driving task	63
4.2 General assessment and management guidelines	63
4.3 Medical standards for licensing	63
5. MUSCULOSKELETAL CONDITIONS	66
5.1 Relevance to the driving task	66
5.2 General assessment and management guidelines	66
5.3 Medical standards for licensing	68
6. NEUROLOGICAL CONDITIONS	70
6.1 Dementia	71
6.2 Seizures and epilepsy	75
6.3 Vestibular disorders	87
6.4 Other neurological and neurodevelopmental conditions	90
7. PSYCHIATRIC CONDITIONS	100
7.1 Relevance to the driving task	100
7.2 General assessment and management guidelines	101
7.3 Medical standards for licensing	103
8. SLEEP DISORDERS	105
8.1 Relevance to the driving task	105
8.2 General assessment and management guidelines	105
8.3 Medical standards for licensing	108
9. SUBSTANCE MISUSE (INCLUDING ALCOHOL, ILLICIT DRUGS AND PRESCRIPTION DRUG MISUSE)	110
9.1 Relevance to the driving task	110
9.2 General assessment and management guidelines	111
9.3 Medical standards for licensing	113



10. VISION AND EYE DISORDERS	116
10.1 Relevance to the driving task	116
10.2 General assessment and management guidelines	116
10.3 Medical standards for licensing	119
PART C: APPENDICES	123
APPENDIX 1: REGULATORY REQUIREMENTS FOR DRIVER TESTING	125
APPENDIX 2: FORMS	132
Appendix 2.1: Medical report form	132
Appendix 2.2: Medical condition notification form	133
APPENDIX 3: LEGISLATION RELATING TO REPORTING	136
Appendix 3.1: Legislation relating to reporting by drivers	136
Appendix 3.2: Legislation relating to reporting by health professionals	138
APPENDIX 4: DRIVERS' LEGAL BAC LIMITS	142
APPENDIX 5: DISABLED CAR PARKING/TAXI SERVICES	144
APPENDIX 6: SEATBELT USE	145
APPENDIX 7: HELMET USE	147
APPENDIX 8: DRIVER LICENSING AUTHORITY CONTACTS	149
APPENDIX 9: SPECIALIST DRIVER ASSESSORS	152
INDEX	153
NOTES	159

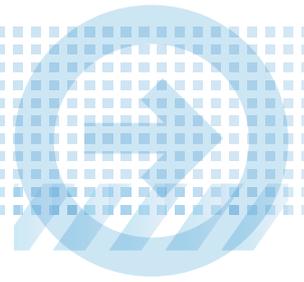
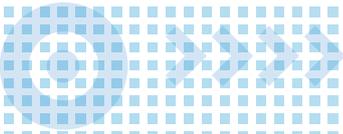
HELP FOR PROFESSIONALS

For guidance regarding fitness to drive contact your state or territory driver licensing authority (refer to page 149 for details). Information is also available from the Austroads website: www.austroads.com.au



PART A: GENERAL INFORMATION





1. ABOUT THIS PUBLICATION

1.1 PURPOSE

Driving a motor vehicle is a complex task involving perception, appropriate judgement, adequate response time and appropriate physical capability. A range of medical conditions, disabilities and treatments may influence these driving prerequisites. Such impairment may adversely affect driving ability, possibly resulting in a crash causing death or injury.

The primary purpose of this publication is to increase road safety in Australia by assisting health professionals to:

- assess the fitness to drive of their patients in a consistent and appropriate manner, based on current medical evidence
- promote the responsible behaviour of their patients, having regard to their medical fitness
- conduct medical examinations for the licensing of drivers as required by state and territory driver licensing authorities
- provide information to inform decisions on conditional licences
- recognise the extent and limits of their professional and legal obligations with respect to reporting fitness to drive.

The publication also aims to provide guidance to driver licensing authorities in making licensing decisions.

With these aims in mind the publication:

- outlines clear medical requirements for driver capability, based on available evidence and expert medical opinion
- clearly differentiates between national minimum standards (approved by the Standing Council on Transport and Infrastructure) for drivers of commercial and private vehicles
- provides general guidelines for managing patients with respect to their fitness to drive
- outlines the legal obligations for health professionals, driver licensing authorities and drivers
- provides a reporting template to guide reporting to the driver licensing authority if required
- provides links to supporting and substantiating information.

Routine use of these standards will ensure that the fitness to drive of each patient is assessed in a consistent manner. In doing so, the health professional will not only be contributing to road safety but will minimise medico-legal exposure in the event that a patient is involved in a crash or disputes a licensing decision.

The publication replaces all previous publications containing medical standards for private and commercial vehicle drivers including *Assessing Fitness to Drive 2001, 2003* and *Medical Examinations for Commercial Vehicle Drivers 1997*.

1.2 TARGET AUDIENCE

This publication is intended for use by any health professional who is involved in assessing a person's fitness to drive including:

- medical practitioners (general practitioners and specialists)
- optometrists
- occupational therapists
- psychologists
- physiotherapists.

The publication is also a primary source of requirements for driver licensing authorities in making determinations about fitness to hold a driver licence.

1.3 SCOPE

1.3.1 Medical fitness for driver licensing

This publication is designed principally to guide and support assessments made by health professionals regarding fitness to drive for licensing purposes. It should be used by health professionals when:

- **Treating any patient who holds a driver licence whose condition may impact on their ability to drive safely.** The majority of adults drive, thus a health professional should routinely consider the impact of a patient's condition on their ability to drive safely. Awareness of a patient's occupation or other driving requirements is also helpful.

ABOUT THIS PUBLICATION

- **Undertaking an examination at the request of a driver licensing authority or industry accreditation body.** Health professionals may be requested to undertake a medical examination of a driver for a number of reasons. This may be:
 - for initial licensing of some vehicle classes (e.g. multiple combination heavy vehicles)
 - as a requirement for a conditional licence
 - for assessing a person whose driving the driver licensing authority believes may be unsafe (i.e. 'for cause' examinations)
 - for licence renewal of an older driver (in certain states and territories)
 - for licensing or accreditation of certain commercial vehicle drivers (e.g. public passenger vehicle drivers)
 - as a requirement for Basic or Advanced Fatigue Management under the National Heavy Vehicle Accreditation Scheme (refer to www.ntc.gov.au).

This publication focuses on long-term health and disability-related conditions and their associated functional effects that may impact on driving. It sets out clear minimum medical requirements for unconditional and conditional licences that form the medical basis of decisions made by the driver licensing authority. This publication also provides general guidance with respect to patient management for fitness to drive.

1.3.2 Short-term fitness to drive

This publication does not attempt to address the full range of health conditions that might impact on a person's fitness to drive in the short term. Some guidance in this regard is included in section 4.3 **Temporary conditions**. In most instances, the non-driving period for short-term conditions will depend on individual circumstances and should be determined by the treating health professional based on an assessment of the condition and the potential risks.

1.3.3 Fitness for duty

The medical standards contained in this publication relate only to driving. They cannot be assumed to be applicable to fitness-for-duty assessments (including fitness for tasks such as checking loads, conversing with passengers and undertaking emergency procedures) without first undertaking a task risk assessment that identifies the range of other requirements for a particular job.

1.4 CONTENT

This publication is presented in three parts.

Part A comprises general information including:

- the roles and responsibilities of drivers, licensing authorities and health professionals
- what standards to apply (private or commercial) for particular driver classes
- the application of conditional licences
- the steps involved in assessing fitness to drive
- specific considerations including:
 - the assessment of people with multiple medical conditions or age-related change
 - the management of temporary conditions, progressive disorders and undifferentiated illness
 - the effects of prescription and over-the-counter drugs
 - the role of practical driver assessments.

Part B comprises a series of chapters relating to relevant medical systems/diseases. The medical requirements for unconditional and conditional licences are summarised in a tabulated format and are colour-coded to differentiate between the requirements for private and commercial vehicle drivers. Additional information, including the rationale for the standards, as well as a general assessment and management considerations, is provided in the supporting text of each chapter.

Part C comprises further supporting information including:

- regulatory requirements for driver assessment in each jurisdiction
- guidance on forms for the examination process and reporting to the driver licensing authority
- legislation relating to driver and health professional reporting of medical conditions
- legislation relating to blood alcohol, seatbelt use and helmet use
- contacts for services relating to disabled parking and transport, occupational therapist assessments and driver licensing authorities.



1.5 DEVELOPMENT AND EVIDENCE BASE

Development of these standards has been informed by the publication *A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines*, National Health and Medical Research Council 1998.

A key input in terms of evidence has been the Monash University Accident Research Centre (MUARC) report *Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition*.¹ This is an update of the original 2004 report, and provides a comprehensive review of published studies involving domestic drivers in Western countries between May 2003 and June 2009. It investigates the influence of chronic illness and impairments on crash involvement, including condition prevalence, evidence of crash involvement and other measures of driver risk.

In compiling this report, MUARC sought the best available evidence but acknowledges the quality of evidence is variable. In interpreting the research, there is therefore a need to consider a number of sources of potential bias including:

- There is a 'healthy driver' effect whereby drivers with a medical condition may recognise that they are not able to fully control a car and may either cease driving or restrict their driving – their opportunity to be in a crash is therefore reduced and this contributes to a lower crash risk than may otherwise be expected.
- The definition and incidence of crashes when driving often depends on self-reporting, which may lead to over or under reporting in some studies.
- The 'exposure metric' (i.e. kilometres travelled) is often not controlled for, yet is crucial for determining the risk of a crash.
- The definition of a 'crash' may vary from vehicle or property damage to personal injury and depend on self-reporting.
- The definition of a 'medical condition' is by self-report in some studies and may not be accurate.
- Sample sizes may be small and not representative of the population of drivers.
- The control group may not be properly matched by age and sex.
- Comorbidities may not be adjusted for, for example, alcohol dependence.

The implications are that false negative results may occur whereby the condition appears to have no effect or minimal effect on driving safety. The authors acknowledge that care should be taken in interpreting the literature, and that professional opinion plus other data (coronial cases) should be taken into account in determining the risks posed by medical conditions. Such input has been secured for the current edition of *Assessing Fitness to Drive* through the involvement of several expert groups.

Health professionals should also keep themselves up to date with changes in medical knowledge and technology that may influence their assessment of drivers, and with legislation that may affect the duties of the health professional or the patient.

2. ROLES AND RESPONSIBILITIES

Roles and responsibilities of the driver licensing authority, the health professional and the vehicle driver are summarised in Table 1 and discussed in this section. Legislation relating to driver and health professional responsibilities is also summarised in [Appendix 3: Legislation relating to reporting](#).

Figure 1 summarises the relationships and interactions between the driver licensing authority, health professional and vehicle driver.

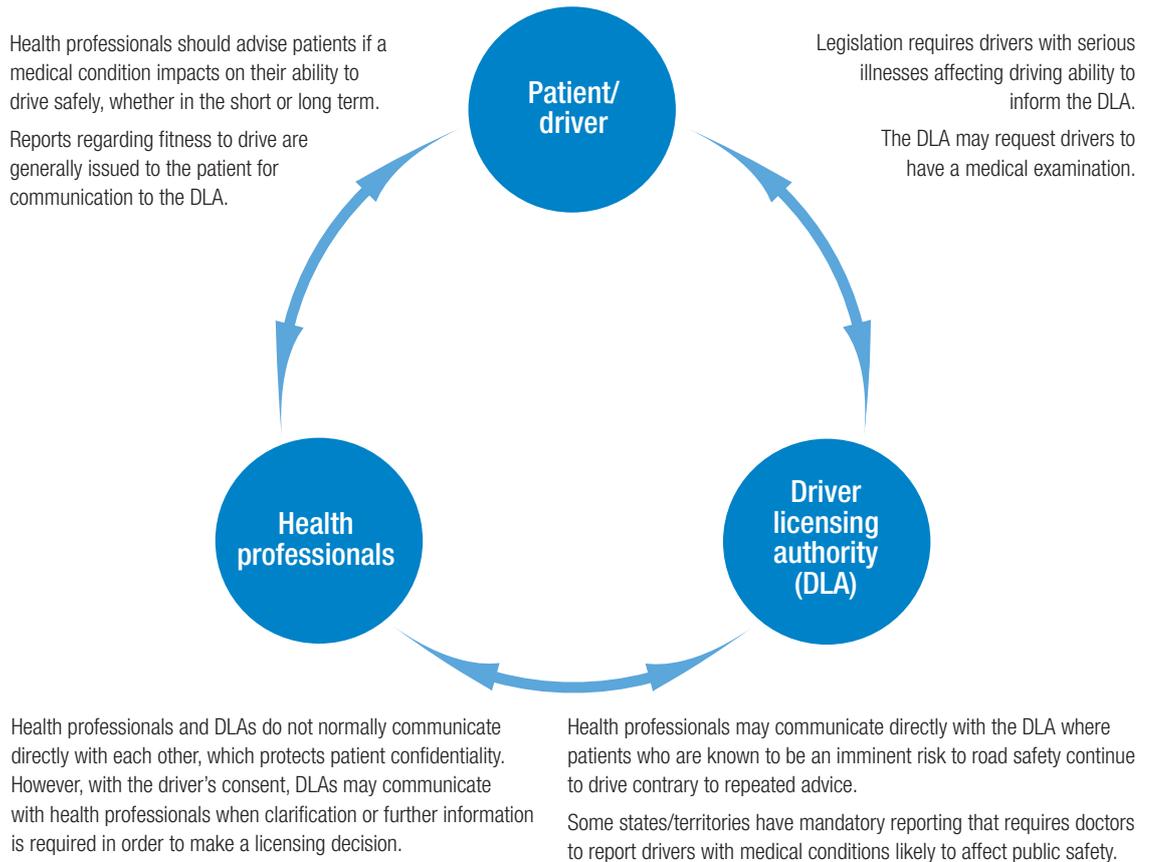
The responsibility for issuing, renewing, suspending, refusing or cancelling a person’s driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to the driver’s health and driving performance record.

Table 1: Key roles and responsibilities with respect to fitness to drive

DRIVER	HEALTH PROFESSIONAL	DRIVER LICENSING AUTHORITY
<ul style="list-style-type: none"> To report to the driver licensing authority any long-term or permanent injury or illness that may affect their ability to drive safely. To respond truthfully to questions from the health professional regarding their health status and the likely impact on their driving ability. To adhere to prescribed medical treatment. To comply with requirements of a conditional licence as appropriate, including periodic medical reviews. 	<ul style="list-style-type: none"> To assess the person’s medical fitness to drive based on the relevant published medical standards. To advise the person regarding: <ul style="list-style-type: none"> the impact of their medical condition or disability on their ability to drive and recommend restrictions and ongoing monitoring as required their responsibility to report their condition to the driver licensing authority if their long-term or permanent injury or illness may affect their ability to drive safely. To treat, monitor and manage the person’s condition with ongoing consideration of their fitness to drive. To report to the driver licensing authority regarding a person’s fitness to drive, in accordance with legislated requirements and public safety and ethical considerations. To make an assessment and provide advice to the driver licensing authority regarding a patient’s suitability to hold a conditional licence. 	<ul style="list-style-type: none"> To make all decisions regarding the licensing of drivers. The driver licensing authority will consider reports provided by health professionals, police and members of the public, as well as crash involvement and conviction histories. To make all decisions regarding the issue of conditional licences. The driver licensing authority will consider the recommendations of health professionals as well as other relevant factors. To educate the driving public of their responsibility to report any long-term or permanent injury or illness to the driver licensing authority if the condition may affect their ability to drive safely.

Brochures describing the responsibilities of patients, examining professionals and licensing authorities may be available from state and territory driver licensing authorities. Refer to Appendix 8 (page 149) for contact details. Information is also available from the Austroads website: www.austroads.com.au

Figure 1: Relationships/interaction between patients/drivers, health professionals and driver licensing authority (DLA)



The above relationships are generalised and may vary between states/territories in terms of legislative requirements. For specific requirements refer to [Appendix 3: Legislation relating to reporting](#).

2.1 ROLES AND RESPONSIBILITIES OF DRIVER LICENSING AUTHORITY

The responsibility for issuing, renewing, suspending, refusing or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to the driver's health and driving performance record.

In making a licensing decision, the authority will seek input regarding a person's medical fitness to drive, either directly from the driver and/or from a health professional. The authority will also act on unsolicited reports from health professionals, the police or members of the public regarding a person's fitness to drive.

Under national driving licensing arrangements current at the time of publication, the driver licensing authority issuing the driver licence and the driver's residential address should be in the same jurisdiction.

Payment for health examinations or assessments related to fitness to drive is generally not the responsibility of the driver licensing authority.

Each state and territory has an appeal system for situations where drivers feel the driver licensing authority has treated them unjustly. The driver licensing authority will inform drivers of the appeal process when informing them of the licensing decision.

Driver licensing authorities can provide health professionals with information relating to:

- licensing and administrative processes
- medical aspects – while not all driver licensing authorities have medical officers on staff, they are able to assist health professionals who require guidance with particular cases
- legal and ethical issues – the driver licensing authority can provide guidance regarding the legislative requirements for licensing and assessing fitness to drive. For general advice regarding legal or ethical issues, health professionals should contact their professional defence organisation.

[Appendix 8](#) contains the contact details for driver licensing authorities around Australia.

2.2 ROLES AND RESPONSIBILITIES OF DRIVERS

In all states and territories, legislation requires a driver to advise their driver licensing authority of any long-term or permanent injury or illness that may affect their safe driving ability.

At licence application and renewal, drivers can be asked to complete a declaration regarding their health, including whether they have any long-term conditions such as diabetes, epilepsy or cardiovascular disease. Based on this information the driver licensing authority may request a medical examination to confirm a driver's fitness to hold a driver licence. In the case of medical examinations requested by the driver licensing authority, drivers have a duty to declare their health status to the examining health professional.

Drivers are also required to report to the driver licensing authority when they become aware of a health condition that may affect their ability to drive safely. There is some variability in these laws between the states and territories, thus drivers and health professionals should be aware of the specific reporting requirements in their jurisdiction, and should contact their driver licensing authority for details of local requirements. These laws may impose penalties for failure to report (refer to [Appendix 3: Legislation relating to reporting](#)).

Drivers may be liable at common law if they continue to drive knowing that they have a condition that is likely to adversely affect safe driving. Drivers should be aware that there may be long-term financial, insurance and legal consequences where there is failure to report an impairment to their driver licensing authority.

2.3 ROLES AND RESPONSIBILITIES OF HEALTH PROFESSIONALS

Patients rely on health professionals to advise them if a permanent or long-term injury or illness may affect their safe driving ability, and whether it should be reported to the driver licensing authority. The health professional has an ethical obligation, and potentially a legal one, to give clear advice to the patient in cases where an illness or injury may affect safe driving ability. Health professionals are advised to note in the medical record the nature of the advice given.

2.3.1 Confidentiality, privacy and reporting to the driver licensing authority

Health professionals have both an ethical and legal duty to maintain patient confidentiality. The ethical duty is generally expressed through codes issued by professional bodies. The legal duty is expressed through legislative and administrative means, and includes measures to protect personal information about a specific individual. The duty to protect confidentiality also applies to driver licensing authorities.

The patient–professional relationship is built on a foundation of trust. Patients disclose highly personal and sensitive information to health professionals because they trust that the information will remain confidential. If such trust is broken, many patients could either forgo examination/treatment and/or modify the information they give to their health professional, thus placing their health at risk.

Although confidentiality is an essential component of the patient–professional relationship, there are, on rare occasions, ethically and/or legally justifiable reasons for breaching confidentiality. With respect to assessing and reporting fitness to drive, the duty to maintain confidentiality is legally qualified in certain circumstances in order to protect public safety. The health professional should consider reporting directly to the driver licensing authority in situations where the patient is either:

- unable to appreciate the impact of their condition, or
- unable to take notice of the health professional's recommendations due to cognitive impairment, or
- continues driving despite appropriate advice and is likely to endanger the public.

In the Australian Capital Territory, New South Wales, Queensland, Tasmania, Victoria and Western Australia statute provides that health professionals who make such reports to driver licensing authorities, without the patient's consent but in good faith that a patient is unfit to drive, are protected from civil and criminal liability (refer to [Appendix 3: Legislation relating to reporting](#)).

In South Australia and the Northern Territory current legislation imposes mandatory reporting. A positive duty is imposed on health professionals to notify the relevant authority in writing of a belief that a driver is physically or mentally unfit to drive (refer to [Appendix 3: Legislation relating to reporting](#)).

It is preferable that any action taken in the interests of public safety should be taken with the consent of the patient wherever possible and should certainly be undertaken with the patient's knowledge of the intended action.

The patient should be fully informed as to why the information needs to be disclosed to the driver licensing authority, and be given the opportunity to consider this information. Failure to inform the patient will only exacerbate the patient's (and others') mistrust in the patient–professional relationship.

It is recognised that there might be an occasion where the health professional feels that informing the patient of the disclosure may place the health professional at risk of violence. Under such circumstances the health professional must consider how to appropriately manage such a situation (refer to Part A section 2.3.3 [Patient hostility towards the health professional](#)).

In making a decision to report directly to the driver licensing authority, it may be useful for the health professional to consider:

- the seriousness of the situation (i.e. the immediate risks to public safety)
- the risks associated with disclosure without the individual's consent or knowledge, balanced against the implications of non-disclosure
- the health professional's ethical and professional obligations
- whether the circumstances indicate a serious and imminent threat to the health, life or safety of any person.

Examinations requested by a driver licensing authority

When a patient presents for a medical examination at the request of a driver licensing authority the situation is different with respect to confidentiality. The patient will present with a form or letter from the driver licensing authority, requesting an examination for the purposes of licence application or renewal, or as a stipulation of a conditional licence. The completed form will generally be returned by the patient to the driver licensing authority, thus there is no risk of breaching confidentiality or privacy, provided only information relevant to the patient's driving ability is included on the form.

Privacy legislation

All health professionals and driver licensing authorities should be aware of the National Privacy Principles, the Information Privacy Principles and other privacy legislation applicable in their jurisdiction (e.g. health records legislation) when collecting and managing patient information and when forwarding such information to third parties.

2.3.2 Patient–health professional relationship

It is expected that the health professional will be able to act objectively in assessing a patient's fitness to drive. If this cannot be achieved, for example, where there may be the possibility of the patient ceasing contact or avoiding all medical management of their condition, health professionals should be prepared to disqualify themselves and refer their patient to another practitioner.

2.3.3 Patient hostility towards the health professional

Sometimes patients feel affronted by the possibility of restrictions to their driving or withdrawal of their licence, and may be hostile towards their treating health professionals. In such circumstances the health professional may elect to refer the driver to another practitioner or may refer them directly to the driver licensing authority without a recommendation regarding fitness to drive. Driver licensing authorities recognise that it is their role to enforce the laws on driver licensing and road safety and will not place pressure on health professionals that might needlessly expose them to risk of harassment or intimidation.

Further information about managing patient–professional hostility is available via the Royal Australian College of General Practitioners website (www.racgp.org.au/gpsafeplace).

2.3.4 Dealing with individuals who are not regular patients

Care should be taken when health professionals are dealing with drivers who are not regular patients. Some drivers may seek to deceive health professionals about their medical history and health status, and may 'doctor shop' for a desirable opinion. If a health professional has doubts about an individual's reason for seeking a consultation, they should consider:

- asking permission from the individual to request their medical file from their regular health professional
- conducting a more thorough examination of the individual than would usually be undertaken.

2.3.5 Role of the specialist

In most circumstances, medical assessments of drivers of both commercial and private vehicles can be conducted by a general practitioner. However, if doubt exists about a patient's fitness to drive or if the patient's particular condition or circumstances are not covered specifically by the standards, review by a specialist experienced in the management of the particular condition is warranted and the general practitioner should refer the patient to such a specialist.

In the case of commercial vehicle drivers, the opinion of a medical specialist is generally required for initial recommendation and periodic review of a conditional licence - the main exceptions to this are set out in this paragraph and in [Section 3.4.7](#). This requirement reflects the higher safety risk for commercial vehicle drivers and the consequent importance of expert opinion. In circumstances where access to specialists is limited, once the initial recommendation is made by a specialist, alternative arrangements for subsequent reviews by the general practitioner may be made with the approval of the driver licensing authority and with the agreement of the specialist and the treating general practitioner.

All parties are encouraged to use telemedicine technologies such as videoconferencing to minimise the difficulties associated with limited access to specialists.

Note: The opinion of a specialist is relevant only to their particular specialty. The general practitioner is in a good position to integrate reports from various specialists in the case of multiple disabilities to help the driver licensing authority make a licensing decision. An occupational physician or an authorised health professional may provide a similar role for drivers of commercial vehicles and their employers.

For the purposes of this publication, the term 'specialist' refers to a medical or surgical specialist other than a general practitioner, acknowledging that Fellows of the Royal Australian College of General Practitioners have specialist status under the new medical registration arrangements (refer to www.medicalboard.gov.au).

2.3.6 Documentation

Clear documentation of the assessment results and communication with the patient and driver licensing authority is important. Refer to section [5.1 Which forms to use](#).

3. LICENSING AND MEDICAL FITNESS TO DRIVE

3.1 MEDICAL STANDARDS FOR PRIVATE AND COMMERCIAL VEHICLE DRIVERS

This publication outlines two sets of medical standards for driver licensing or authorisation: private vehicle driver standards and commercial vehicle driver standards.

The choice of which standards to apply when examining a patient for fitness to drive is guided by both the type of vehicle (e.g. heavy vehicle) and the purpose for which the driver is authorised to drive (e.g. carrying passengers). Generally, the commercial vehicle driver medical standards apply to drivers of heavy vehicles, public passenger vehicles or vehicles carrying bulk dangerous goods. These standards are more stringent than the private standards and reflect the increased risk associated with motor vehicle crashes involving such vehicles (refer to section [3.2 Considerations for commercial vehicle licensing](#)).

The **private standards** should be applied to:

- drivers applying for or holding a licence class C (car), R (motorcycle) or LR (light rigid) unless the driver is also applying for an authority or is already authorised to use the vehicle for carrying public passengers for hire or reward or for carrying bulk dangerous goods, or, in some jurisdictions, for a driving instructor.

The **commercial standards** should be applied to:

- drivers of 'heavy vehicles', i.e. those holding or applying for a licence of class MR (medium rigid), HR (heavy rigid), HC (heavy combination) or MC (multiple combination)
- drivers carrying public passengers for hire or reward (bus drivers, taxi drivers, chauffeurs, drivers of hire cars and small buses, etc.)
- drivers carrying bulk dangerous goods
- drivers subject to requirements for Basic or Advanced Fatigue Management under the National Heavy Vehicle Accreditation Standard
- other driver categories who may also be subject to the commercial vehicle standards as a result of certification requirements of the authorising body or as required by specific industry standards, for example, driving instructors and members of Trucksafe.

3.2 CONSIDERATIONS FOR COMMERCIAL VEHICLE LICENSING

The assignment of medical standards for vehicle drivers is based on an evaluation of the driver, passenger and public safety risk, where *risk = likelihood of the event x severity of consequences*.

Commercial vehicle crashes may present a severe threat to passengers, other road users (including pedestrians and cyclists) and residents adjacent to the road. Such crashes present potential threats in terms of spillage of chemicals, fire and other significant property damage.

Commercial vehicle drivers generally spend considerable time on the road, thus increasing the likelihood of a motor vehicle crash. They may also be monitoring various in-vehicle communication and work-related systems – a further factor that increases the likelihood of a crash. Crash data identifies that commercial vehicle drivers are more than twice as likely to be involved in a fatal crash compared with other drivers. On the other hand, crashes involving private vehicle drivers are likely to have less severe consequences. Therefore, to ensure that the risk to the public is similar for private and commercial vehicle drivers, the medical fitness requirements for the latter must be more stringent. This is required in order to reduce to a minimum the risk of crash due to long-term injuries or illnesses. The standards outlined in this publication reflect these differences.

The standards also acknowledge and allow for the variability in risk among different commercial vehicle drivers. The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence (refer to section [3.4 Conditional licences](#)). For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle on his/her own property may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a patient and when providing advice to the driver licensing authority.

In developing the standards, a number of approaches have been adopted to manage the increased risk associated with driving a commercial vehicle. These approaches include:

- There are generally longer non-driving periods prescribed for commercial vehicle drivers compared with private vehicles, for example, after a seizure or heart attack.

LICENSING AND MEDICAL FITNESS TO DRIVE

- There is generally a requirement that a specialist (rather than general practitioner) provide information regarding a conditional licence for a commercial vehicle driver (refer to section 3.4 Conditional licences).
- Some medical conditions may preclude a person from driving a commercial vehicle but they may still be eligible to hold a full or conditional licence for a private vehicle, for example, early dementia.
- The review period for a conditional licence may be shorter for a commercial vehicle driver.

Table 2: Choice of standard according to vehicle/licence type

NATIONAL LICENCE CLASSES		WHICH STANDARDS TO APPLY (private or commercial)
Motorcycle (R) 	Motorbike or motortrike	Private standards apply UNLESS driver holds or is applying for an authority to carry public passengers for hire or reward, in which case the commercial standards apply.
Car (C) 	Vehicle not more than 4.5 tonnes GVM (gross vehicular mass) and seating up to 12 adults including the driver.	Private standards apply UNLESS: <ul style="list-style-type: none"> • driver holds or is applying for an authority to carry public passengers for hire or reward (e.g. taxi driver) • driver holds or is applying for an authority to carry bulk dangerous goods • driver holds or is applying to hold authority to be a driving instructor. In these cases the commercial standards apply.
Light rigid (LR) 	Any rigid vehicle greater than 4.5 tonnes GVM or a vehicle seating more than 12 adults, that is not more than 8 tonnes, plus a trailer of no more than 9 tonnes GVM.	
Medium rigid (MR) 	Any two-axle rigid vehicle greater than 8 tonnes GVM.	
Heavy rigid (HR) 	Any rigid vehicle with three or more axles greater than 8 tonnes GVM.	Commercial standards apply at ALL times.
Heavy combination (HC) 	Prime mover + single semi-trailer or a rigid vehicle plus trailer greater than 9 tonnes GVM and any unladen converter dolly trailer.	
Multiple combination (MC) 	Heavy combination vehicle with more than one trailer.	
Note: <ul style="list-style-type: none"> • A person who does not meet the commercial vehicle medical requirements may still be eligible to retain a private vehicle driver licence. In such cases, both sets of standards may need to be consulted. • The standards are intended for application to drivers who drive within the ambit of ordinary road laws. Drivers who are permitted to exceed these laws, such as emergency service vehicle drivers, should have a risk assessment and an appropriate level of medical standard applied. 		

3.3 PRESCRIBED PERIODIC MEDICAL EXAMINATIONS FOR PARTICULAR LICENSING/AUTHORISATION CLASSES

Some classes of driver are required to present periodically for prescribed examinations based on the standards as part of their licensing or authorisation requirements.

Such requirements may vary between states and territories and might apply, for example, to:

- drivers of vehicles that are physically difficult to drive or require the capacity to monitor many vehicle functions, for example, multiple combinations
- drivers of vehicles for which the consequences of a crash are usually serious, for example, drivers of bulk dangerous goods vehicles or drivers of public passenger vehicles.

There are also requirements in some states and territories for older drivers to undergo periodic medical assessment.

These requirements are determined and directed by individual state and territory driver licensing authorities and are outlined in [Appendix 1: Regulatory requirements for driver testing](#). Industry groups such as the Australian Trucking Association and national programs, such as the Fatigue Management Program under the National Heavy Vehicle Accreditation Standard, may also require drivers to have periodic examinations; however, the requirements of these programs are not discussed specifically in this standard.

3.4 CONDITIONAL LICENCES

3.4.1 What is a conditional licence?

A conditional licence provides a mechanism for optimising driver and public safety while maintaining driver independence when a driver has a long-term or progressive health condition or injury that may impact on their ability to drive safely. A conditional licence identifies the need for medical treatments, vehicle modifications and/or driving restrictions that would enable the person to drive safely. It may also specify a review period, after which the person is required to submit for medical review to establish the status of their condition and their continued fitness to drive. A conditional licence therefore offers an alternative to withdrawal of a licence and enables individual case-based decision making.

3.4.2 Who allocates a conditional licence?

The final decision regarding conditional licences rests with the driver licensing authority (refer to section [2.1 Roles and responsibilities of the driver licensing authority](#)). The decision is based on information provided by the health professional and on road safety considerations. In some cases, for example, reduced limb strength, an assessment by an occupational therapist or physiotherapist may be helpful to determine the suitability of a conditional licence. The driver licensing authority will issue a conditional licence to a driver with a long-term injury or illness on the basis that any additional road safety risk posed by the person driving is acceptable.

3.4.3 What is the role of the health professional?

While the driver licensing authority makes the final decision about whether a driver is eligible for a conditional licence, the health professional provides information to assist the authority in its decision making. The health professional should advise the driver licensing authority of:

- which medical requirements (for an unconditional licence) have not been met
- the likely adequacy of treatments or vehicle modifications in optimising driver capacity
- the plan to monitor the driver's performance and the medical condition, including timeframes for review
- if appropriate, information relating to possible licence conditions, for example, vehicle type or licence restrictions such as no night driving
- any other medical information that may be relevant to the driving task.

This information is needed so that the driver licensing authority can make an informed decision and determine what conditions will be endorsed on the licence.

3.4.4 What sort of conditions may be recommended?

Examples of licence conditions or vehicle modifications are shown in Table 3. These are indicative only and will vary depending on the medical condition and the type of licence. They include standard conditions that will appear as codes on the driver's licence (e.g. corrective lenses, automatic transmission, hand controls). They also include conditions that are 'advisory' in nature and as such may not appear on the actual licence (e.g. take medication as prescribed, built-up seat/cushions, not to drive more than x hours in any 24-hour period).

The health professional can support the patient in making an application for a conditional licence by indicating the patient's driving needs, but the final decision/responsibility rests with the driver licensing authority.

Table 3: Examples of licence conditions that may be required by the driver licensing authority*

EXAMPLES OF DISABILITY/SITUATION	EXAMPLES OF LICENCE CONDITIONS
Left leg disability / left arm disability	Automatic transmission
Short stature	Built-up seat and pedals
Loss of leg function	Hand-operated controls
Reduced lower limb strength	Power brakes required
Reduced upper limb strength	Power steering required; steering knob with hand controls
Short leg/s	Extended pedals
Hearing deficiency (commercial drivers)	Hearing aid must be worn (commercial vehicles)
Deafness, both ears (commercial vehicle driver)	Vehicle fitted with two external rear-view mirrors and other devices as required to assist external visual surveillance and recognition of emergency vehicles (e.g. additional wide-angle internal mirror)
Eyesight deficiency	Prescribed corrective lenses must be worn
Loss of limb function	Prosthesis must be worn
Degenerative diseases	Periodic review by driver assessor
Night blindness	Driving in daylight hours only
Age-associated deteriorations, for example, attention	Driving during off-peak only; drive within a 20 km radius of place of residence; in daylight hours only; no freeway driving
Spinal cord injury (above T12)	Not to drive when temperature more than 25° C unless vehicle air conditioned

*These are not mandatory requirements and may be unsuitable in some circumstances.

3.4.5 What monitoring is required for a conditional licence?

Conditional licences should be subject to periodic review so that the medical condition or disability, including the compliance with treatments, can be monitored. The frequency of formal review with regard to licence status is sometimes specified in this publication but often is left to the judgement of the health professional, given the variations in severity of a medical condition or disability and the possible effects on driving.

In the course of providing advice regarding a conditional licence, health professionals should advise the driver licensing authority of the period for which a conditional licence could be issued before formal review. This may be months or years depending on the condition in question and its progression; these reviews differ from the ordinary follow-up consultations that a health professional may be offering in the course of general management.

At the time of periodic review or during general management of a patient’s condition, it may become apparent that the patient no longer meets the requirements of the conditional licence because their health has deteriorated for some reason. The patient should be advised to inform the driver licensing authority of their changed circumstances with respect to fitness to drive (refer to section 2.2 Roles and responsibilities of drivers).

3.4.6 What about conditional licences for commercial vehicle drivers?

In the case of commercial vehicle drivers, the opinion of a medical specialist is generally required for consideration of a conditional licence - the main exceptions to this are set out in the next paragraph and in Section 3.4.7. This requirement reflects the higher safety risk for commercial vehicle drivers and the consequent importance of expert opinion.

In areas where access to specialists may be difficult, the driver licensing authority may agree to a process in which:

- initial assessment and advice for the conditional licence is provided by a specialist
- ongoing periodic review for the conditional licence is provided by the treating general practitioner, with the cooperation of the specialist.

Where appropriate and available, the use of telemedicine technologies such as videoconferencing is encouraged as a means of facilitating access to specialist opinion.

In addition to the examples in Table 3, the driver licensing authority may consider issuing a conditional commercial vehicle licence, for instance, in certain circumstances or situations where crash risk exposure is reduced. Examples of such circumstances or situations may include:

- 'off-road' driving of commercial vehicles where licences are still required
- where driving is not the primary occupation, for example, mechanics who need to test drive the vehicle, primary producers who need to get product to market and only need to drive a couple of times a year, drivers who need to move buses not carrying public passengers within a bus depot or from a nearby workshop.

3.4.7 What if there is a delay before a specialist can be seen?

In the case of a commercial vehicle driver, or an applicant for a commercial vehicle licence, who is assessed by a general practitioner as not meeting the criteria to hold an unconditional licence for one or more conditions, but who may meet the criteria to hold a conditional licence, the driver licensing authority may permit the person to drive, or to continue to drive, a commercial vehicle pending assessment of the person by an appropriate specialist or specialists if –

- the person has an appointment to see the relevant specialist(s) at the earliest practicable opportunity; and
- in the opinion of the general practitioner the condition is not, or the conditions are not, likely to lead to acute incapacity or loss of concentration before the assessment or assessments occur.

Examples of such conditions include early peripheral neuropathy, early rheumatoid arthritis or diabetes treated by diet and exercise alone. Examples of conditions that could lead to acute incapacity or loss of concentration include ischaemic heart disease, sleep apnoea, or blackouts other than vasovagal.

In applying this section the driver licensing authority may impose conditions on the licence.

3.5 REINSTATEMENT OF LICENCES OR REMOVAL OF LICENCE CONDITIONS

Situations may arise in which the medical condition of a patient who has previously been unlicensed or on a conditional licence improves to such an extent that their licensing status warrants reconsideration, for example, surgical ablation of the focus of a cardiac arrhythmia. In other instances, the patient's condition may have improved and they may no longer require a licence condition (e.g. as a result of long-term improvement following an acquired brain injury or stroke, or surgical correction of musculoskeletal disorders).

Under such circumstances a letter or notification to this effect from the treating health professional (refer to [Appendix 2.2: Medical condition notification form](#)) will prompt the driver licensing authority to consider reinstating the appropriate licence or removing licence conditions. The health professional should include in the report:

- details of the requirements previously not met
- the response to treatment and the long-term prognosis
- the duration of improvement
- other relevant information including consideration of the driving task (e.g. the requirements of a person who drives occasionally to the shops are likely to be different from those of a person undertaking extensive interstate travel).

The driver licensing authority will consider the request and advise the driver of their determination; licence decisions may be contingent on the requirement for the driver/applicant to undertake and pass an on-road evaluation to confirm their driving abilities.

4. GENERAL CONSIDERATIONS FOR ASSESSING FITNESS TO DRIVE

The aim of determining fitness to drive is to achieve a balance between minimising any driving-related road safety risks for the individual and the community posed by the driver's permanent or long-term injury or illness, and maintaining the driver's lifestyle and employment-related mobility independence.

The following pages outline the general principles and considerations for assessing driver fitness. Also included in this section is a summary of the assessment process. These principles should be considered in conjunction with the specific standards outlined in Part B of this publication.

4.1 REQUIREMENTS OF THE DRIVING TASK

Consideration of the requirements of the driving task is fundamental to assessing a person's medical fitness to drive.

The driving task involves a complex and rapidly repeating cycle that requires a level of skill and the ability to interact with both the vehicle and the external environment at the same time (refer to Figure 2 and Table 4). Information about the road environment is obtained via the visual and auditory senses. The information is operated on by many cognitive processes including short- and long-term memory and judgement, which leads to decisions being made about driving. Decisions are put into effect via the musculoskeletal system, which acts on the steering, gears and brakes to alter the vehicle in relation to the road. This repeating sequence depends on:

- vision
- visuospatial perception
- hearing
- attention and concentration
- memory
- insight
- judgement
- reaction time
- sensation
- muscle power
- coordination.

Given these requirements, it follows that many body systems need to be functional in order to ensure safe and timely execution of the skills required for driving.

Figure 2: The driving task

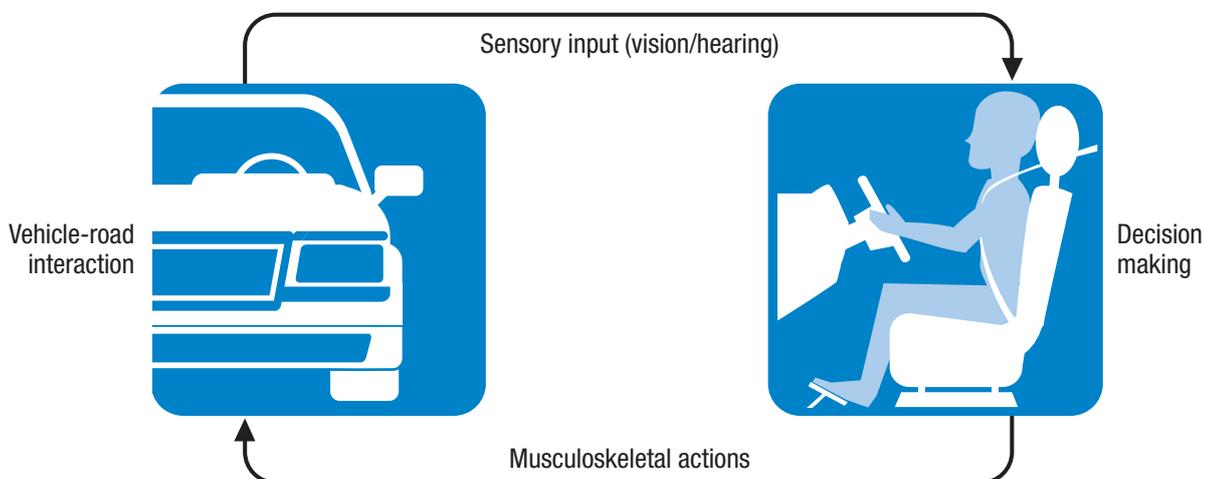


Table 4: Environmental factors affecting driving

Driving tasks occur within a dynamic system influenced by complex driver, vehicle, task, organisational and external road environment factors including:

- the driver's experience, training and attitude
- the driver's physical, mental and emotional health, including fatigue and the effect of prescription and non-prescription drugs
- the road system, for example, signs, other road users, traffic characteristics and road layout
- legal requirements, for example, speed limits and blood alcohol concentration
- the natural environment, for example, night, extremes of weather and glare
- vehicle and equipment characteristics, for example, type of vehicle, braking performance and maintenance
- personal requirements, trip purpose, destination, appointments, time pressures, etc.
- passengers and their potential to distract the driver.

For **commercial or heavy vehicle drivers** there are a range of additional factors including:

- business requirements, for example, rosters (shifts), driver training and contractual demands
- work-related multi-tasking, for example, interacting with in-vehicle technologies such as GPS, job display screens or other communication systems
- legal requirements, for example, work diaries and licensing procedures
- vehicle issues including size, stability and load distribution
- passenger requirements/issues, for example, duty of care, communication requirements and potential for occupational violence
- risks associated with carriage of dangerous goods
- additional skills required to manage the vehicle, for example, turning and braking
- endurance/fatigue and vigilance demands associated with long periods spent on the road.

4.2 MEDICAL CONDITIONS LIKELY TO AFFECT FITNESS TO DRIVE

Given the many causal factors in motor vehicle crashes, the extent to which medical conditions contribute is difficult to assess. There is, however, recognition of the potential for certain conditions to cause serious impairments. Examples of such conditions include:

- blackouts
- cardiovascular disease
- diabetes
- musculoskeletal conditions
- neurological conditions such as epilepsy, dementia and cognitive impairment due to other causes
- psychiatric conditions
- substance misuse/dependency
- sleep disorders
- vision problems.

Treatments for medical conditions (including drug treatments and others) can also affect driving ability through effects on cognition and reaction time (refer to section [4.8 Drugs and driving](#)).

Drivers may present to treating health professionals with a range of conditions, some that affect driving temporarily, or may affect the patient's ability to drive at some time in the future, or that are complicated by the presence of multiple conditions. The content of this publication focuses on common conditions known to affect fitness to drive and in particular on determining the risk of a patient's involvement in a serious vehicle crash caused by loss of control of the vehicle. It is accepted that other medical conditions or combinations of conditions may also be relevant and that it is not possible to define all clinical situations where an individual's overall function would compromise public safety. A degree of professional judgement is therefore required in assessing fitness to drive.

4.3 TEMPORARY CONDITIONS

There is a wide range of conditions that temporarily affect the ability to drive safely. These include conditions such as post major surgery, severe migraine, or injuries to limbs. These conditions are self-limiting and hence do not impact on licence status; therefore, the licensing authority need not be informed. However, the treating health professional should provide suitable advice to such patients regarding driving safely, particularly for commercial vehicle drivers. Such advice should be based on consideration of the likely impact of the patient's condition and their specific circumstances on the driving task as well as their specific driving requirements. Table 5 provides guidance on some common conditions that may temporarily impact on driving ability.

Note: This publication does not attempt to address every condition or situation that might temporarily affect safe driving ability.

Table 5: Examples of management of temporary conditions

CONDITION AND IMPACT ON DRIVING	MANAGEMENT GUIDELINES
<p>Anaesthesia</p> <p>Physical and mental capacity may be impaired for some time post anaesthesia (including both general and local anaesthesia). The effects of general anaesthesia will depend on factors such as duration of anaesthesia, the drugs administered and the surgery performed. The effect of local anaesthesia will depend on dosage and the region of administration. The use of analgesics and sedatives should also be considered.</p>	<p>In cases of recovery following surgery or procedures under general or local anaesthesia, it is the responsibility of the surgeon/dentist and anaesthetist to advise patients not to drive until physical and mental recovery is compatible with safe driving.</p> <ul style="list-style-type: none"> • Following minor procedures under local anaesthesia without sedation (e.g. dental block), driving may be acceptable immediately after the procedure. • Following brief surgery or procedures with short-acting anaesthetic drugs, the patient may be fit to drive after a normal night's sleep. • After longer surgery or procedures requiring general anaesthesia, it may not be safe to drive for 24 hours or more.
<p>Post surgery</p> <p>Surgery will impact on driving ability to varying degrees depending on the location, nature and extent of the procedure.</p>	<p>The non-driving period post surgery should be determined by the treating health professionals.</p>
<p>Pregnancy</p> <p>Under normal circumstances pregnancy should not be considered a barrier to driving. However, conditions that may be associated with some pregnancies should be considered when advising patients. These include:</p> <ul style="list-style-type: none"> • fainting or light-headedness • hyperemesis gravidarum • hypertension of pregnancy • post caesarean section. 	<p>A caution regarding driving may be required depending on the severity of symptoms and the expected effects of medication. Seatbelts must be worn (refer to Appendix 6: Seatbelt use).</p>
<p>Temporary or short-term vision impairments</p> <p>A number of conditions and treatments may impair vision in the short term, for example, temporary patching of an eye, use of mydriatics or other drugs known to impair vision, or eye surgery.</p> <p>For long-term vision problems, refer to Part B section 10 Vision and eye disorders.</p>	<p>People whose vision is temporarily impaired by a short-term eye condition or an eye treatment should be advised not to drive for an appropriate period.</p>
<p>Deep vein thrombosis and pulmonary embolism</p> <p>While deep vein thrombosis may lead to an acute pulmonary embolus there is little evidence that such an event causes crashes. Therefore there is no licensing standard applied to either condition. Non-driving periods are advised. If long-term anticoagulation treatment is prescribed, the standard for anticoagulant therapy should be applied (refer to Part B section 2.2.6 Long-term anticoagulant therapy).</p>	<p>Private and commercial vehicle drivers should be advised not to drive for at least two weeks following a deep vein thrombosis and for six weeks following a pulmonary embolism.</p>

PART A: 4

4.4 UNDIFFERENTIATED CONDITIONS

A patient may present with symptoms that could have implications for their licence status but the diagnosis is not clear. Investigation of the symptoms will mean there is a period of uncertainty before a definitive diagnosis is made and before the licensing requirements can be confidently applied.

Each situation will need to be assessed individually, with due consideration being given to the probability of a serious disease or long-term or permanent injury or illness that may affect driving, and to the circumstances in which driving is required. However, patients presenting with symptoms of a potentially serious nature, for example, chest pains, dizzy spells or blackouts, or delusional states should be advised not to drive until their condition can be adequately assessed. During this interim period, in the case of private vehicle drivers, no formal communication with the driver licensing authority is required. After a diagnosis is firmly established and the standards applied, normal notification procedures apply if needed. In the case of a commercial vehicle driver presenting with symptoms of a potentially serious nature, the driver should be advised to cease driving and to notify the driver licensing authority. The health professional should consider the impact on the driver's livelihood and investigate the condition as quickly as possible.

4.5 MULTIPLE CONDITIONS AND AGE-RELATED CHANGE

Where a vehicle driver has multiple conditions or a condition that affects multiple body systems, there may be an additive or a compounding detrimental effect on driving abilities, for example, in:

- congenital disabilities such as cerebral palsy, spina bifida and various syndromes
- multiple trauma causing orthopaedic and neurological injuries as well as psychiatric sequelae
- multi-system diseases such as diabetes, connective tissue disease and HIV
- dual diagnoses involving psychiatric illness and drug or alcohol addiction
- ageing-related changes in motor, cognitive and sensory abilities together with degenerative disease.

Although these medical standards are designed principally around individual conditions, clinical judgement is needed to integrate and consider the effects on safe driving of any medical conditions and disabilities that a patient may present with. For example, glaucoma may cause a slight loss of peripheral vision. If combined with cervical spondylosis and low insight, there is likely to be a substantial reduction in the driver's visual fields and possibly their perceptual abilities, thus increasing the risks of missing important visual information when driving.

Advanced age, in itself, is not a barrier to driving, and functional ability rather than chronological age should be the criterion used in assessing the fitness to drive of older people. Age-related physical and mental changes vary greatly between individuals but will eventually affect the ability to drive safely. Professional judgement must determine what is acceptable decline (compensated by the patient's long experience and self-imposed limitations on when and where they drive) and what is irreversible, hazardous deterioration in driving-related skills, requiring reporting to the licensing authority. This may require careful consideration and specialist referral. Note that some driver licensing authorities require medical examination or assessment of drivers beyond a specified age. These requirements vary between jurisdictions and may be viewed in [Appendix 1: Regulatory requirements for driver testing](#).

As all possible combinations of disabilities are too numerous to detail here, the following guidelines provide a general approach to assessing these patients.

- **The driving task.** First, consider the ergonomics of the driving task as shown in Figure 2. How might the various impairments (sensory, cognitive and musculoskeletal), disabilities and general fitness levels impact on function required to complete driving-related tasks?
- **General functionality.** Consider to what extent the person is currently able to function with regard to domestic or occupational requirements and what compensatory or coping strategies may have been developed. Information gained from relatives or carers is also likely to be important in this regard. Individuals may be likely to cope better with congenital or slow-onset conditions compared with traumatic or rapidly developing conditions.
- **Clinical assessment.** The key considerations are:
 - sensory (in particular visual acuity and visual fields but also cutaneous, muscle and joint sensation)
 - motor function (including joint movements, strength and coordination)
 - cognition (including attention, concentration, presence of hallucinations and delusions, insight, judgement, memory, problem-solving skills, thought processing and visuospatial skills).

It may be necessary for the health professional to consider medical standards for each condition. However, it is insufficient simply to apply the medical standards contained in this publication for each condition separately, as a driver may have several minor impairments that alone may not affect driving but when taken together may make risks associated with driving unacceptable. It will therefore be necessary to integrate all clinical information, bearing in mind the additive or compounding effect of each condition on the overall capacity of the patient to control the vehicle, and to act and react in an appropriate and timely way to emergent traffic and road conditions.

- **Capacity to learn to drive.** Young people with multiple disabilities may seek the opportunity to gain a driver licence. In order to ensure they receive informed advice and reasonable opportunities for training, it is helpful if they are trained by a driving instructor with experience in the area of teaching drivers with disabilities. An initial assessment with an occupational therapist specialised in driver evaluation may help to identify the need for adaptive devices, vehicle modifications or special driving techniques.
- **Occupational therapy assessment.** A referral for an assessment by a generalist occupational therapist may be useful. It could request an evaluation of overall functioning (personal, mobility, community and work activities) as well as seek an opinion on general capacity for driving (this assessment may be available under the Medicare 'Care Plan' for people with multiple disabilities as well as for those turning 75 years).
- **On-road driving assessment.** An on-road or simulator assessment may also be helpful (refer to section 4.9 Practical driver assessments). This is particularly relevant to those applying for, or seeking to maintain, a commercial vehicle licence.

In light of the information gathered from the above, the health professional may advise the patient regarding their fitness to drive and provide advice to the driver licensing authority. The key question is: *is there a likelihood the person will be unable to control the vehicle and act or react appropriately to the driving environment in a safe, consistent and timely manner?* The threshold tolerance for multiple conditions is much less for commercial vehicle drivers where there is the potential for more severe consequences in the event of a crash.

Where one or more conditions is progressive, it may be important to reduce driving exposure and ensure ongoing monitoring of the patient (refer to section 4.6 Progressive disorders). Conditional licences that may limit the driver (e.g. no night driving) or place requirements on the vehicle (e.g. automatic transmission only) are an option in these circumstances (refer to section 3.4 Conditional licences). The requirement for periodic reviews can be included as recommendations on driver licences. This is also important for drivers with conditions likely to be associated with future reductions in insight and self-regulation. If lack of insight may become an issue in the future, it is important to advise the patient to report the condition/s to the driver licensing authority. Where lack of insight already appears to impair self-assessment and judgement, public safety interests should prevail and the health professional should report the matter directly to the driver licensing authority and, if appropriate, seek the support of the patient's family members.

For patient information and resources refer to section 4.11 Information and assistance for patients.

4.6 PROGRESSIVE DISORDERS

Often diagnoses of progressive disorders are made well before there is any need to question whether the patient remains safe to drive (e.g. multiple sclerosis). However, it is advantageous to raise issues relating to the likely effects of these disorders on personal independent mobility early in the management process.

In a mobile society, people frequently make choices about employment, place of residence and recreational and social activities based on the assumption of continued access to a car. Changing jobs, home and social contacts takes a great deal of time and places substantial emotional demands on patients and their families.

It is therefore recommended that the patient be advised appropriately where a progressive condition is diagnosed that may result in future restrictions on driving. It is important to give the patient as much lead time as possible to make the lifestyle changes that may later be required. Assistance from an occupational therapist may be valuable in such instances.

4.7 CONGENITAL CONDITIONS

People with congenital or childhood conditions may have developed coping strategies that enable safe driving despite their impairment. They will require individual assessment by a specialist and may need tutoring prior to a practical assessment. While they may require a conditional licence to identify specific vehicle modifications, if the condition is static they may not require periodic reviews.

4.8 DRUGS AND DRIVING

Any drug that acts on the central nervous system has the potential to adversely affect driving skills. Central nervous system depressants, for example, may reduce vigilance, increase reaction times and impair decision making in a very similar manner to alcohol. In addition, drugs that affect behaviour may exaggerate adverse behavioural traits and introduce risk-taking behaviours.

Acute impairment due to alcohol or drugs (including illicit, prescription and over-the-counter drugs) is managed through specific road safety legislation that prohibits driving over a certain blood alcohol concentration (BAC) or when impaired by drugs (refer to Appendix 4: Drivers' legal BAC limits). This is a separate consideration to long-term medical fitness to drive and licensing, thus specific medical requirements are not provided in this publication. Dependency and substance misuse, including chronic misuse of prescription drugs, is a licensing issue and standards are outlined in Part B section 9 Substance misuse.

Where medication is relevant to the overall assessment of fitness to drive in the management of specific conditions, such as diabetes, epilepsy and psychiatric conditions, this is covered in the respective chapters. Prescribing doctors and dispensing pharmacists do, however, need to be mindful of the potential effects of all prescribed and over-the-counter medicines and to advise patients accordingly. General guidance is provided below.

4.8.1 General guidance for prescription drugs and driving

While many drugs have effects on the central nervous system most, with the exception of benzodiazepines, tend not to pose a significantly increased crash risk when the drugs are used as prescribed, and once the patient is stabilised on the treatment. This may also relate to drivers' self-regulating their driving behaviour. When advising patients and considering their general fitness to drive, whether in the short or longer term, health professionals should consider the following:

- The balance between potential impairment due to the drug and the patient's improvement in health on safe driving ability.
- The individual response of the patient – some individuals are more affected than others.
- The type of licence held and the nature of the driving task i.e. commercial vehicle driver assessments should be more stringent.
- The added risks of combining two or more drugs capable of causing impairment, including alcohol.
- The added risks of sleep deprivation on fatigue while driving, which is particularly relevant to commercial vehicle drivers.
- The potential impact of changing medications or changing dosage.
- The cumulative effects of medications.
- The presence of other medical conditions that may combine to adversely affect driving ability.
- Other factors that may exacerbate risks, such as known history of alcohol or drug misuse.

4.8.2 The effects of specific drug classes

Benzodiazepines

Benzodiazepines are well known to increase the risk of a crash and are found in about 4% of fatalities and 16% of injured drivers taken to hospital.² In many of these cases benzodiazepines were either abused or used in combination with other impairing substances. If a hypnotic is needed, a shorter acting drug is preferred. Tolerance to the sedative effects of the longer acting benzodiazepines used in the treatment of anxiety gradually reduces their adverse impact on driving skills.

Antidepressants

Although antidepressants are one of the more commonly detected drug groups in fatally injured drivers, this tends to reflect their wide use in the community. The ability to impair is greater with sedating tricyclic antidepressants, such as amitriptyline and dothiepin, than with the less sedating serotonin and mixed reuptake inhibitors such as fluoxetine and sertraline. However, antidepressants can reduce the psychomotor and cognitive impairment caused by depression and return mood towards normal. This can improve driving performance.

Antipsychotics

This diverse class of drugs can improve performance if substantial psychotic-related cognitive deficits are present. However, most antipsychotics are sedating and have the potential to adversely affect driving skills through blockade of central dopaminergic and other receptors. Older drugs such as chlorpromazine are very sedating due to their additional actions on the cholinergic and histamine receptors. Some newer drugs are also sedating, such as clozapine, olanzapine and quetiapine, while others such as aripiprazole, risperidone and ziprasidone are less sedating. Sedation may be a particular problem early in treatment and at higher doses.

Opioids

There is little direct evidence that opioid analgesics such as hydromorphone, morphine or oxycodone have direct adverse effects on driving behaviour. Cognitive performance is reduced early in treatment, largely due to their sedative effects, but neuroadaptation is rapidly established. This means that patients on a stable dose of an opioid may not have a higher risk of a crash. This includes patients on buprenorphine and methadone for their opioid dependency, providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs. Driving at night may be a problem due to the persistent miotic effects of these drugs reducing peripheral vision.

4.9 PRACTICAL DRIVER ASSESSMENTS

A practical driver assessment may be conducted to assess the impact of a health condition on driving. Such assessments are to be distinguished from the tests of competency to drive that are routinely conducted by driver licensing authorities for licensing purposes.

A practical driver assessment is designed to assess the impact of injury, illness or the ageing process on driving skills including judgement, decision-making skills, observation and vehicle handling. The assessment may also be helpful in determining the need for vehicle modification to assist drivers with musculoskeletal and other disabilities.

A health professional may request a practical driver assessment to provide information to supplement the clinical assessment in some borderline cases and to assist in making recommendations regarding a person's fitness to drive. However, practical assessments have limitations in that a patient's condition may fluctuate (good days and bad days) and it is not possible to create emergency situations on the road to assess quickness of response. Thus, practical assessments are intended to inform but not override the clinical opinion of the examining health professional. In addition, there are clinical situations that are clearly unsuitable for on-road assessments, such as visual impairment or significant cognitive impairment.

There are a wide range of practical assessments available, including off-road, on-road and driving simulator assessments, each with strengths and limitations. Assessments may be conducted by occupational therapists trained in driver assessment or by others approved by the particular driver licensing authority. Processes for initiating and conducting driver assessments vary between the states and territories and choice of assessment depends on resource availability, logistics, cost and individual requirements. The assessments may be initiated by the examining health professional, other referrers (e.g. police, self, family) or by the driver licensing authority.

Depending on the individual situation, the assessments may involve evaluation of:

- the need for specialised equipment or vehicle modifications
- the driver's ability to control the motor vehicle
- the driver's functional status including cognitive function, physical strength and skills, reaction time, insight level and ability to self-monitor driving
- the driver's lifestyle and the nature, frequency and requirement for driving
- the driver's understanding and application of road law.

Recommendations following assessment may relate to licence status, the need for vehicle modifications, rehabilitation or retraining, licence conditions and reassessment.

It is not the intent of this publication to specify the assessment to be used in a particular situation. Health professionals should contact their local driver licensing authority ([Appendix 8: Driver licensing authority contacts](#)) for details of options or refer to [Appendix 9: Specialist driver assessors](#).

More information about occupational therapy driver assessments can be found in the Victorian Guidelines for Occupational Therapy (OT) Driver Assessors, 2008 (www.vicroads.vic.gov.au/NR/rdonlyres/9EF6BA72-E5CA-48B4-8403-692A5B2B0273/0/GuidelinesForOccupationalTherapy_Sept2008.pdf).

4.10 EQUAL EMPLOYMENT OPPORTUNITY (EEO) AND DISCRIMINATION

4.10.1 Equal employment opportunity

The purpose of the standards, particularly for commercial vehicle driving, is to protect public safety. They should not be used as a barrier to employment per se. The system of conditional licences aims to support employability without compromising road safety by providing for periodic medical review and driving conditions as appropriate.

4.10.2 Discrimination

Commonwealth and state or territory legislation exists to protect workers against unfair discrimination based on disability. If a patient suspects they are being unfairly discriminated against based on the disability outlined on their conditional licence, they may contact their union or the Human Rights and Equal Opportunity Commission or the relevant commission in their state or territory.

4.11 INFORMATION AND ASSISTANCE FOR PATIENTS

Assessment by a health professional is one piece of information taken into account by the driver licensing authority in making a decision about the future licensing status of a patient. The driver licensing authority may cancel, refuse or suspend a driver's licence or place conditions on a licence. Because most people consider a driver licence critical to continued independence, employment and recreation, the risk of it being withdrawn can evoke strong emotions and reactions. Patients may become upset, anxious, frustrated or angry, especially if their livelihood or lifestyle is threatened.

In cases where licensing decisions may impact on a patient's ability to earn a living, it is necessary that the health professional demonstrates some sensitivity in the interests of ongoing patient health. Practical steps may include facilitating appropriate service provision through the timely provision of necessary reports. Offering some direction in developing coping strategies may help alleviate some of the patient's concerns or fears. Where appropriate, the health professional should consider direct referral rather than simply providing sources for further information, for example:

- Vocational assessors will assess a person's ability to rehabilitate, retrain and reskill for another industry, or a new sector within the industry.
- Commonwealth Rehabilitation Services Australia (www.crsaustralia.gov.au) offers a full range of rehabilitation and vocational re-training services and assistance.
- Condition-specific support and advocacy agencies may also offer advice, support and services, for example, Diabetes Australia, Alzheimer's Australia, MS Society and epilepsy organisations.

For older drivers, early advice will help them plan for the inevitable changes in their independence. There are also specific information resources available for drivers with dementia and their carers (refer to resources below).

Driver information resources

Australian Capital Territory

- Seniors Moving Safely www.seniorsmovingsafely.org.au

New South Wales

- Roads and Maritime Services older drivers www.rta.nsw.gov.au/licensing/renewing/licence/olderdrivers
- NRMA older drivers www.mynrma.com.au/cps/rde/xchg/mynrma/hs.xsl/older_drivers_home.htm

Queensland

- Holding your licence after you've turned 75 www.tmr.qld.gov.au/Licensing/Medical-condition-reporting/Older-drivers.aspx
- Royal Automobile Club of Queensland (RACQ) Older Drivers www.racq.com.au/motoring/roads/road_safety/older_road_users

South Australia

- South Australian Seniors Transport www.sa.gov.au/subject/Seniors/Transport

Tasmania

- The Tasmanian Older Drivers Handbook
www.transport.tas.gov.au/__data/assets/pdf_file/0004/69448/Older_Driver_Book_LR.pdf

Victoria

- TAC – older drivers www.tacsafety.com.au/jsp/content/NavigationController.do?arealD=2
- VicRoads older driver safety www.vicroads.vic.gov.au/olderdrivers
www.vicroads.vic.gov.au/familyandfriends
www.vicroads.vic.gov.au/Home/Licences/MedicalConditions/Dementia+and+driving.htm
- Arrive Alive – older drivers www.arrivealive.vic.gov.au/strategy/safer_road_users/older_drivers/older_drivers.html
- How safe is your car? – older drivers www.howsafeisyourcar.com.au/Driving-Safely/Older-Drivers/

Western Australia

- Senior driver licence renewals www.transport.wa.gov.au/licensing/20468.asp

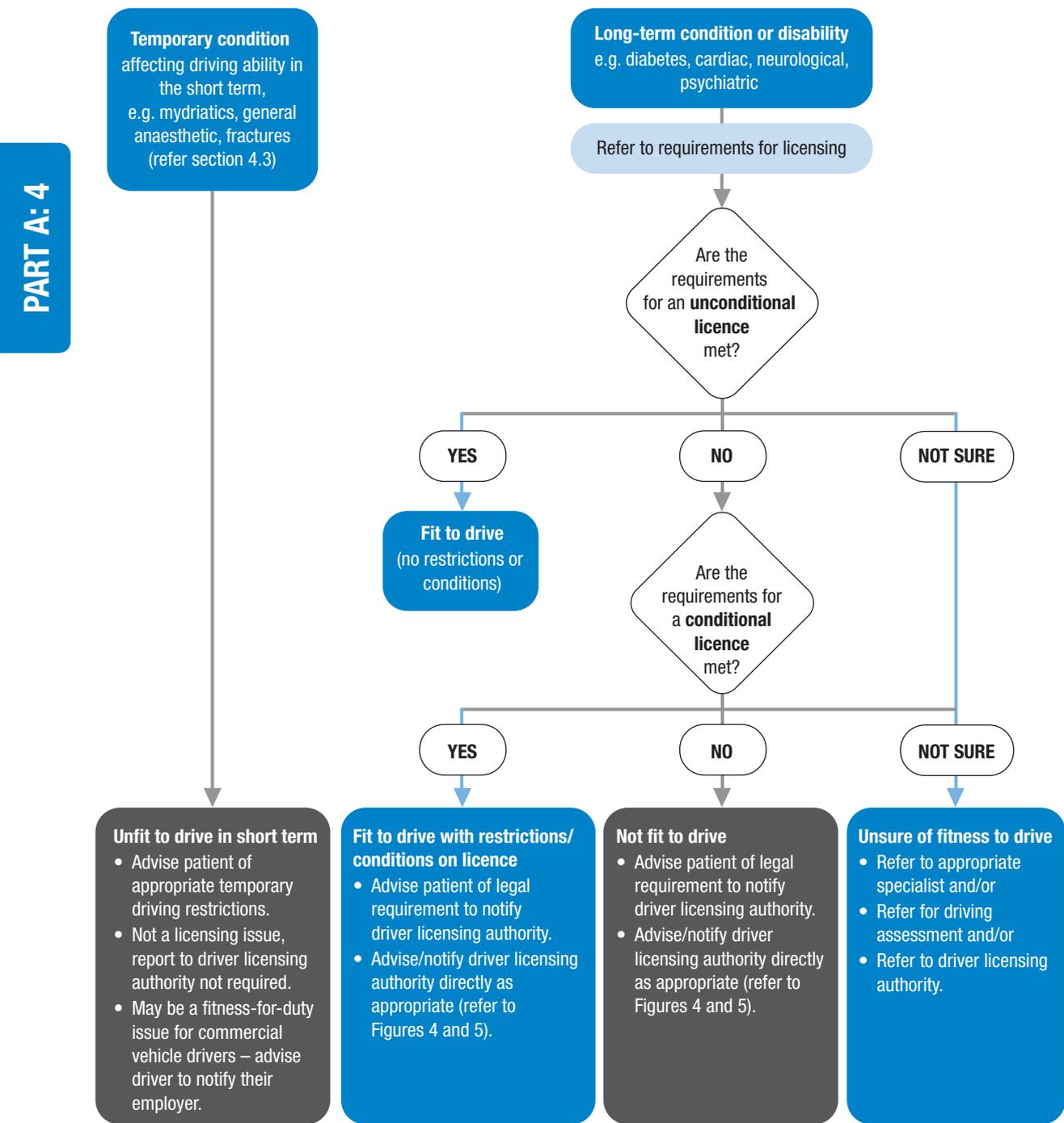
Other

- AAMI fact sheet – older drivers www.aami.com.au/Resources/pdf/aami-fact-sheets/AAMI-Facts_OldDriver_08.pdf
- DrugInfo Clearinghouse – safer driving: older drivers www.druginfo.adf.org.au/information-for/information-for-older-drivers
- Alzheimer's Australia www.alzheimers.org.au

5. ASSESSMENT AND REPORTING PROCESS

Assessing fitness to drive is based on the decision-making processes outlined in Figure 3 below. The nature and extent of the examination will depend on the circumstances and the reasons for the examination. Details of the process and administrative requirements are described in this section and further illustrated in Figure 4 and Figure 5. Note also the further considerations outlined in sections 4.3 to 4.11.

Figure 3: Medical decision-making process for assessing fitness to drive



5.1 WHICH FORMS TO USE

5.1.1 When conducting an assessment at the request of a driver licensing authority

When conducting an assessment at the request of a driver licensing authority, the key form is the **Medical report**. This form is the mechanism for communication between the health professional and the driver licensing authority about the patient's fitness (or otherwise) to drive, albeit via the patient/driver. It should be completed with details of any medical requirements not met as well as details of recommended restrictions and monitoring requirements for a conditional licence. For privacy reasons, only medical information relevant to the patient's fitness to drive should be included on this form.

A blank report is provided to the patient by the local driver licensing authority and presented at the time of consultation for completion and signing by the health professional. Some driver licensing authorities insert personal details on their medical report form prior to issuing to a customer. In these circumstances, customers can only obtain the form by attending a motor registry branch or by calling the authority's contact centre. The completed form is returned to the patient/driver for forwarding to the driver licensing authority. The forms used by each state or territory differ in certain administrative aspects but should contain the key elements described in [Appendix 2: Forms](#).

5.1.2 When assessing fitness to drive in the course of patient treatment

If, in the course of treatment, it is considered that a patient's condition may impact on their ability to drive safely, the health professional should, in the first instance, encourage the patient to report their condition to the driver licensing authority. A standard form, **Medical condition notification form**, has been produced to facilitate this process. Refer to [Appendix 2.2: Medical condition notification form](#) or www.austroads.com.au. If necessary, the health professional may feel obliged to make a report directly to the driver licensing authority using a copy of this form. Most driver licensing authorities will also accept a letter from the treating practitioner or specialist.

Note that such reporting is not required for temporary conditions. Such conditions do not impact on licence status (refer to section [4.3 Temporary conditions](#)) but the patient should be advised not to drive until the temporary situation is resolved.

5.2 STEPS IN THE ASSESSMENT AND REPORTING PROCESS

STEP 1: Consider the type of licence held or applied for

The type of licence will determine whether the commercial or private medical standards are referred to. In the case of examinations requested by a driver licensing authority, the authority will identify the type of licence on the request. In cases of assessment as part of an ongoing therapeutic relationship, the health professional will need to determine from the patient what sort of driver licence or authority they hold. Given the potential for patients to withhold information if their mobility or livelihood is threatened, it is helpful for health professionals to be aware of their patients' occupations as a matter of course.

The health professional should refer to Table 2 to determine which standards to apply.

The medical standards for commercial vehicle drivers are more stringent than those for drivers of private vehicles. Thus, a person who is not eligible for a commercial vehicle licence may still be eligible for a private vehicle driver licence. In such cases, both sets of standards may need to be consulted.

STEP 2: Establish relevant medical and driving history

The nature and extent of this aspect of the assessment will vary depending on the particular circumstances. In the case of examinations requested by a driver licensing authority, a detailed history will need to be established including:

- whether the person has ever been found unfit to drive a motor vehicle in the past, and the reasons
- whether there is any history of epilepsy, syncope or other conditions of impaired consciousness including: sleep disorders; neurological conditions; psychiatric conditions; problems arising from alcohol and/or drugs; diabetes; cardiovascular conditions, especially ischaemic heart disease; locomotor disorders; hearing or visual problems
- whether the person has a history of motor vehicle incidents (crashes, near misses, driving offences)
- whether they are taking medications that might affect driving ability
- the existence of other medical conditions that, when combined, might exacerbate any road safety risks (refer to section [4.5 Multiple conditions and age-related change](#))
- the degree of insight the patient has into their ability to drive safely
- the nature of their current driving patterns and needs, for example, how frequently they drive, for what purposes, over what distances and whether they travel at night.

ASSESSMENT AND REPORTING PROCESS

Special examinations called ‘**for cause**’ examinations may be requested by the driver licensing authority out of concern for driving behaviour, such as recurrent motor vehicle crashes or other reasons. Under such circumstances, it is desirable that all aspects of the driver–vehicle–road system (refer to Figure 2) be considered, for example, fatigue factors in the case of a commercial vehicle driver. A full medical history and history of any motor vehicle crashes should be taken and a complete physical examination conducted. While attention should be given to conditions discussed in Part B of this publication, unusual conditions or the effect of multiple small disabilities affecting the driving task also warrant consideration, investigation and, where justified, specialist referral.

In cases of assessment as part of an ongoing therapeutic relationship, the medical history is likely to be well established; however, an exploration of the person’s driving history may be undertaken.

STEP 3: Undertake a clinical examination

In the case of examinations requested by a driver licensing authority, a comprehensive clinical examination will generally be required, involving assessment of functionality of various body systems including physical and cognitive functioning. The examination should focus on determining the risk of the patient’s involvement in a serious motor crash caused by inability to control the vehicle or inability to act and react appropriately to the driving environment.

This publication focuses on common conditions known to affect fitness to drive in the long term (Part B); however, it is not possible to define all clinical situations where an individual’s overall function would compromise public safety. For example, where a person has a systemic disorder or a number of medical conditions, there may be additive or cumulative detrimental effects on judgement and overall function (refer to section [4.5 Multiple conditions and age-related change](#)).

Additional tests or referral to a specialist may be required if and when clinical examination raises the possibility of potentially significant problems.

STEP 4: Consider the clinical examination results in conjunction with the patient’s medical history, driving history and driving needs

Upon consideration of the information available, the health professional may draw one of a number of conclusions about the patient’s fitness to drive:

- (a) The person has a temporary condition that may impact on driving ability in the short term but will not affect licence status.
- (b) The person complies with all medical requirements appropriate to the type of licence held or requested.
- (c) The person does not meet the unconditional licensing requirements but medical treatments and/or vehicle or driving modifications may enable them to drive safely under a conditional licence.
- (d) The person does not meet the medical requirements for an unconditional or conditional licence.
- (e) The health professional is in doubt about the patient’s fitness to drive.

Where doubt exists about a patient’s fitness to drive or when the patient’s particular condition or circumstances are not covered precisely by the standards, review by a specialist experienced in the management of the particular condition is warranted. In cases where that specialist may still be uncertain about the relative merits of a particular case, a practical driver assessment is one option that may be appropriate (refer to section [4.9 Practical driver assessments](#)). Clearance from the driver licensing authority may be required prior to an assessment taking place. Ultimately, the case may need to be referred to the driver licensing authority for evaluation.

Note: It is the driver licensing authority that is ultimately responsible by law for making the licensing decision. It is sufficient for a professional in such circumstances to prepare a report for the driver licensing authority stating the facts and their opinions clearly.

Where a condition of significance with respect to driving is suspected but not proven (e.g. angina) the health professional should proceed to investigate this. Where there is doubt about the safety of the driver continuing to drive while the condition is being investigated, the patient should be advised accordingly (refer to section [4.3 Temporary conditions](#)).

STEP 5: Inform and advise the patient

Health professionals should routinely advise patients about how their condition may impair their ability to drive safely. As part of this process, the patient becomes better informed about the nature of their condition, the extent to which they can maintain control over it, the importance of periodic medical review and the need for regular medication where appropriate.

In the case of temporary conditions that may affect driving ability in the short term, the examining health professional should provide appropriate advice about not driving and should, with the patient’s consent, seek support as required from family members. Notification to the driver licensing authority is not required in such instances.

In the case of an examination requested by a driver licensing authority, the advisory process is straightforward due to the fact that the patient is actively seeking an examination as part of a licence application or renewal, or as a requirement of a conditional licence. They will be expected to return the report to the driver licensing authority in order to complete the licensing process. Should the patient be found not to meet the medical criteria, the health professional will take a conciliatory and supportive role while explaining fully the risks posed by the patient's condition with respect to driving a vehicle. The health professional should be particularly aware of the needs of the patient whose livelihood is likely to be affected as a result of the assessment findings. There are also special considerations for dealing with individuals who are not regular patients (refer to section [2.3.4 Dealing with individuals who are not regular patients](#)).

The situation may be more challenging when fitness to drive is considered in the **course of a patient's regular treatment** and they are found not to meet the medical criteria. In such situations the health professional may be seen by the patient to be making the licensing decision even though this is not the case. Nonetheless, where the health professional believes that continued driving or continued unconditional driving would be likely to be dangerous, the patient should be informed of the risk to him or herself, and to others, of continuing to drive. Where possible, it is helpful to involve a family member or friend in this process. The driver should be encouraged to report their condition voluntarily to the driver licensing authority and should be reminded of their legal obligation to do so.

The standards in this publication should be consulted when dealing with any such situation since they carry an authority that is not imposed on the driver by the health professional but by the national consensus of the driver licensing authorities.

Information brochures may be available from the driver licensing authority to support the patient advisory process (refer to [Appendix 8: Driver licensing authority contacts](#)). Driver information is also available from the Austroads website (www.austroads.com.au).

Where patients are found not to meet the medical criteria or when conditions or restrictions are recommended, advice should be provided regarding alternative means of transport. Reference may also be made to disabled car parking/taxi services (refer to [Appendix 5: Disabled car parking/taxi services](#)).

STEP 6: Report to the driver licensing authority as appropriate

In the case of an examination requested by a driver licensing authority, the reporting process involves completing the relevant form provided by the driver licensing authority via the patient. Only information relevant to the patient's ability to drive should be included in the report and it should be signed by the examining professional. The original of the medical report should be provided to the patient to return to the driver licensing authority and a copy should be kept on file in the patient's medical record. Since the patient generally returns the medical report to the driver licensing authority there is no need for signed consent in this regard. The patient may, however, be asked by the driver licensing authority to provide signed consent for the driver licensing authority to contact the health professional to seek additional information about their condition for the purposes of assessing their fitness to drive.

In the case of assessments made in the course of patient treatment, when encouraging patients to self-report their condition to the driver licensing authority, the health professional should complete a copy of the **Medical condition notification form** (refer to [Appendix 2.2: Medical condition notification form](#)) and provide this to the patient to take to the driver licensing authority. It is recommended that the health professional retain a copy of the **Medical condition notification form** in the patient record. The driver licensing authority will also accept a letter describing the patient's condition and the nature of any driving restrictions recommended.

Providing a medical assessment report in an accepted format will reduce the need for the patient to attend on a second occasion for an assessment requested by the driver licensing authority. It will also reduce the time taken by the driver licensing authority to review the case and arrive at a decision regarding the patient's driver licence status, thus reducing patient stress and uncertainty.

If the health professional is aware that a patient is continuing to drive and is likely to endanger the public, despite the health professional's advice and despite the driver's own obligation to report, reasonable measures to minimise that danger will include notification of the driver licensing authority. A copy of the model **Medical condition notification form** (refer to [Appendix 2.2: Medical condition notification form](#)) should be used for this purpose with additional information provided as deemed necessary by the health professional. The patient should be informed of the health professional's intent to report (refer to section [2 Roles and responsibilities](#)).

STEP 7: Record keeping

Appropriate records need to be maintained should further information be required by the driver licensing authority. The forms discussed above (refer to section [5.1 Which forms to use](#)) and included in [Appendix 2](#) are designed to assist in this regard.

STEP 8: Follow-up

A health professional has no obligation to contact the patient or driver licensing authority to determine if the patient has reported their condition to the driver licensing authority as advised by the health professional. However, it is appropriate that the health professional, at future patient contacts, enquires about their driving. This is particularly important for public safety in cases where some cognitive deterioration is detected or suspected. If the patient continues to drive despite advice to the contrary, the health professional should consider notifying the driver licensing authority as indicated above.

If the patient did not notify the driver licensing authority and subsequently became involved in a vehicle crash as a result of their condition/illness, the health professional would not be at risk unless it could be demonstrated that they were aware of the patient's continuing driving and were also aware of the imminent and serious risk (refer to section [2 Roles and responsibilities](#)).

HELP FOR HEALTH PROFESSIONALS AND VEHICLE DRIVERS

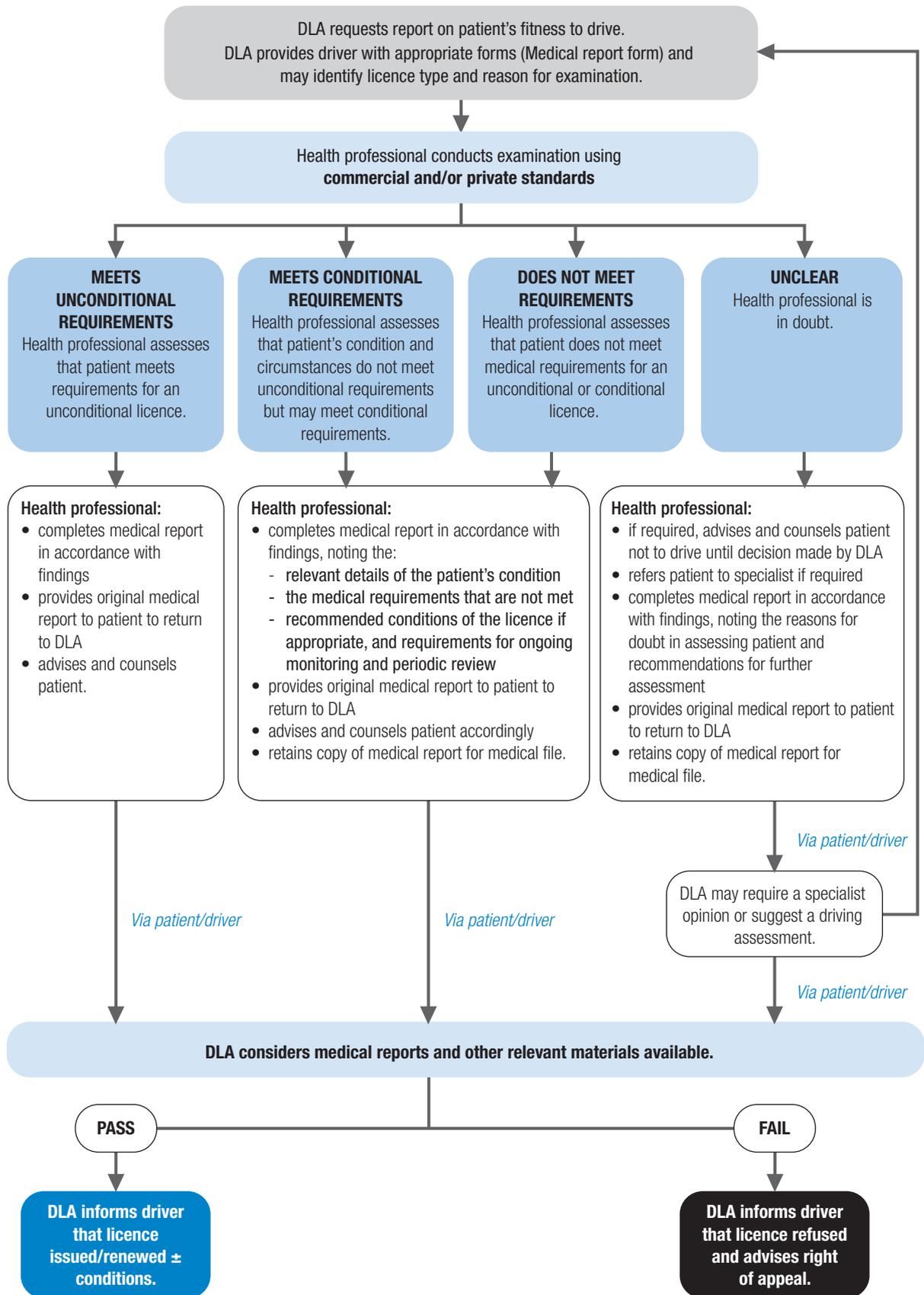
For guidance regarding fitness to drive contact your state or territory driver licensing authority (refer to page 149 for details). Information is also available from the Austroads website: www.austroads.com.au

References

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Drummer O, The role of drugs in road safety. *Australian Prescriber*, 2008; 31:33–35.

Figure 4: Conducting an examination at the request of a driver licensing authority

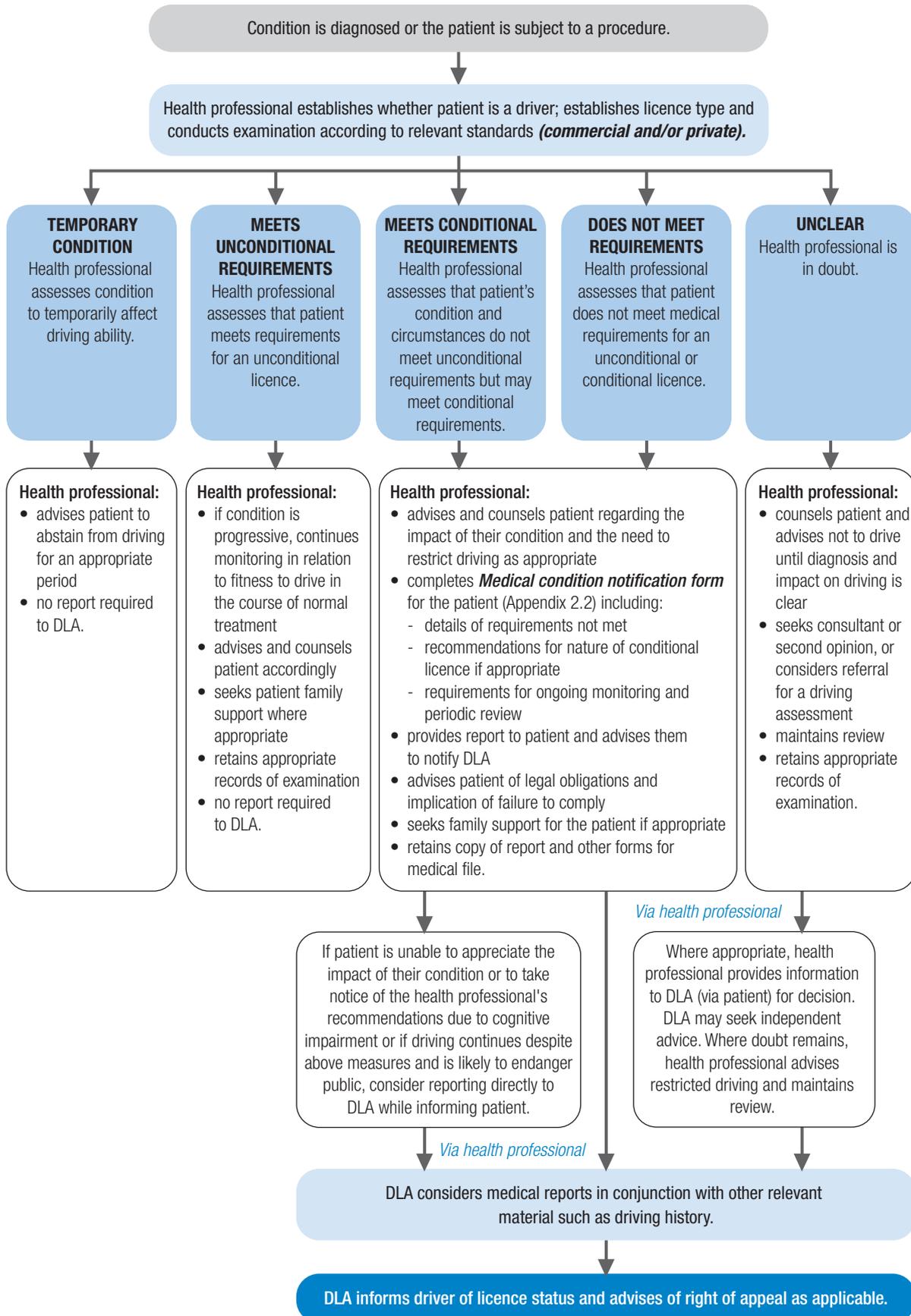
The following flow chart summarises the process involved when an examination and report is requested by a driver licensing authority (DLA).



PART A: 5

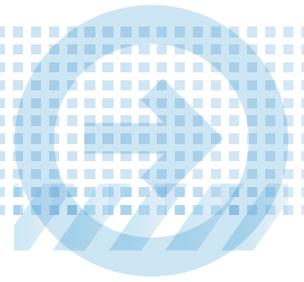
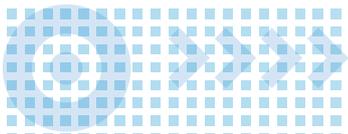
Figure 5: Assessing and reporting on fitness to drive in the course of patient treatment

The following flow chart summarises the process involved when a health professional assesses fitness to drive in the course of treating a patient.



PART B: MEDICAL STANDARDS





1. BLACKOUTS

1.1 RELEVANCE TO THE DRIVING TASK

For the purposes of this standard, the term 'blackout' means a transient impairment or loss of consciousness. Loss of consciousness is clearly incompatible with safe driving. The evidence for crash risk associated with various causes of blackout is discussed in the relevant chapters.

This chapter provides guidance regarding the general management of blackouts, with cross-reference to relevant chapters as per Figure 6 overleaf.

1.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

1.2.1 General considerations

Blackouts may occur due to a number of mechanisms including:

- vasovagal syncope or 'faint', which accounts for over 50% of blackouts and may be due to factors such as hot weather, emotion or venepuncture, but may also be due to more serious causes that may recur
- syncope due to other cardiovascular causes such as structural heart disease, arrhythmias or vascular disease
- epileptic seizure, which accounts for less than 10% of blackouts
- other causes including metabolic (e.g. hypoglycaemia), drug intoxication or sleep disorder.

Determination of the mechanism of a blackout may be straightforward based on history, investigations and specialist referral, and the person may be managed as per the appropriate chapter. Alternatively, it may require extensive cardiovascular and neurological investigations and referral to several specialists. People should be advised not to drive until the mechanism is ascertained and the corresponding standard met.

Some drivers may attribute a crash or driving mishap to a 'blackout' in order to excuse an event that occurred for some other reason such as inattention or distraction (e.g. a mobile phone conversation). There will also be a small proportion of cases in which a clear cause can not be established.

1.2.2 Vasovagal syncope

The most common cause of transient loss of consciousness is vasovagal syncope ('fainting'). Where this has been triggered by a well-defined provoking factor or a situation that is unlikely to recur while driving (e.g. prolonged standing, venepuncture or emotional situation), it is not necessary to restrict driving. However, vasovagal syncope may also result from other causes that are not so benign. In such cases, fitness to drive should be assessed according to the cardiovascular conditions standards for syncope (refer to section 2 [Cardiovascular conditions](#)).

1.2.3 Blackouts of undetermined mechanism

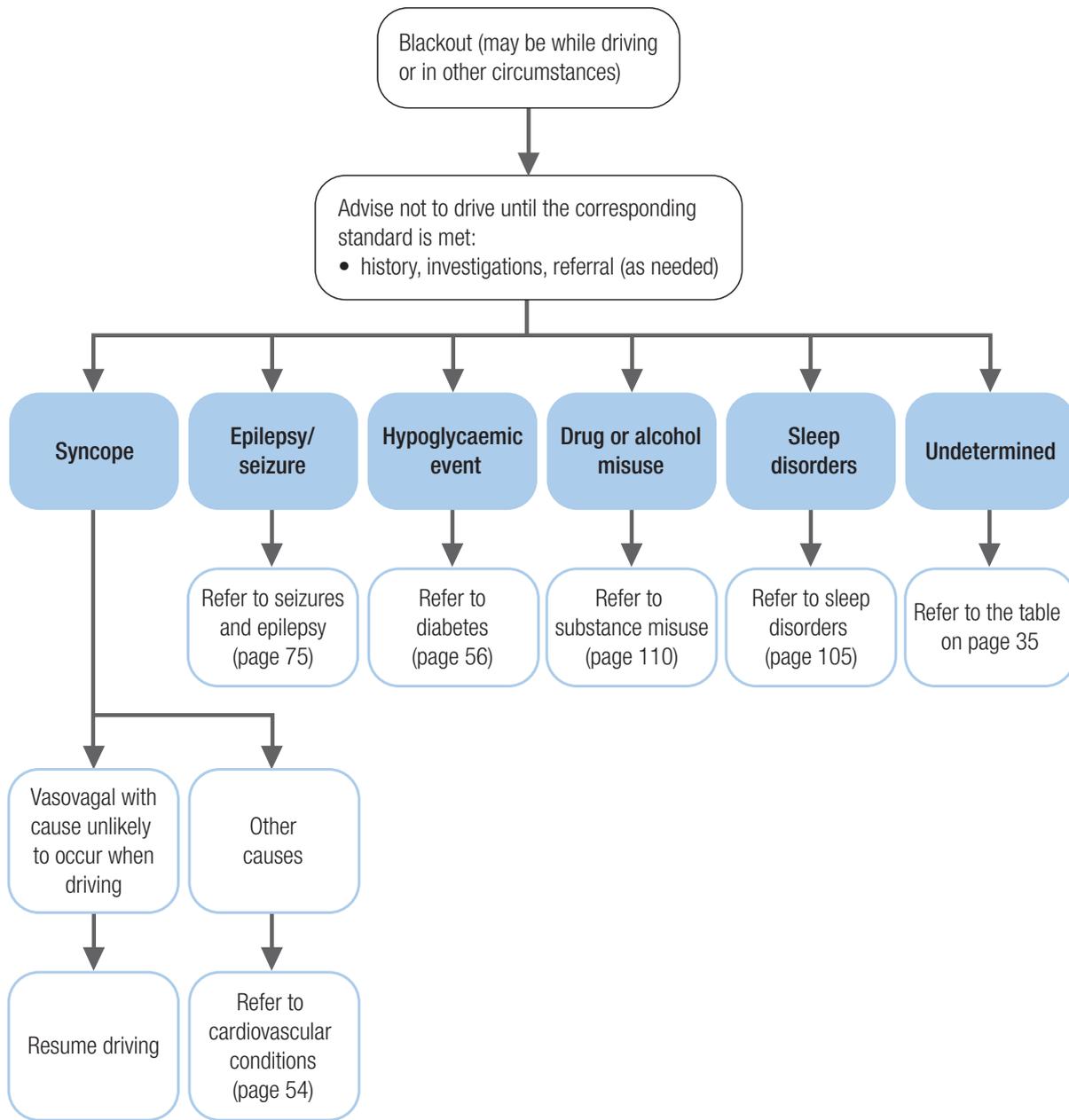
Despite extensive investigation, it is not always possible to determine whether the mechanism of a blackout is syncope, seizure, hypoglycaemia, sleep disorder or another condition. In such cases, fitness to drive should be assessed according to the table on page 35. As some of these cases will be seizures, the standards are similar to those that apply to seizures.

1.3 MEDICAL STANDARDS FOR LICENSING

Where a firm diagnosis has been made, the standard appropriate to the condition should be referred to in this publication (refer to Figure 6). For blackouts where, after investigation, it is not possible to diagnose one of the conditions covered elsewhere in this publication, refer to the criteria in the table on page 36.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

Figure 6: Management of blackouts and driving



MEDICAL STANDARDS FOR LICENSING – BLACKOUTS OF UNCERTAIN NATURE		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Blackouts (episode/s of impaired consciousness) of uncertain nature	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has experienced blackouts that cannot be diagnosed as syncope, seizure or another condition. <p>If there has been a single blackout or more than one blackout within a 24-hour period, a conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least six months. <p>If there have been two or more blackouts separated by at least 24 hours, a conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least 12 months. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has experienced blackouts that cannot be diagnosed as syncope, seizure or another condition. <p>If there has been a single blackout or more than one blackout within a 24-hour period, a conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by an appropriate specialist as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least five years. <p>If there have been two or more blackouts separated by at least 24 hours, a conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by an appropriate specialist as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least 10 years.
Exceptional cases	<p>Where a person with one or more blackouts of undetermined mechanism does not meet the standards above for a conditional licence but may, in the opinion of the treating specialist, be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least annual review:</p> <ul style="list-style-type: none"> if the driver licensing authority, after considering information provided by the treating specialist/s, considers that the risk of a crash caused by a blackout is acceptably low. 	<p>Where a person with one or more blackouts of undetermined mechanism does not meet the standards above for a conditional licence but may, in the opinion of the treating specialist, be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least annual review:</p> <ul style="list-style-type: none"> if the driver licensing authority, after considering information provided by the treating specialist/s, considers that the risk of a crash caused by a blackout is acceptably low.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section [4.5 Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

Further reading

Sorajja D, Nesbitt GC, Hodge DO, Low PA, Hammill SC, Gersh BJ, Shen WK. Syncope while driving: clinical characteristics, causes, and prognosis. *Circulation*. 2009 Sep 15;120(11):928-34.

2. CARDIOVASCULAR CONDITIONS

2.1 RELEVANCE TO THE DRIVING TASK

2.1.1 Effects of cardiovascular conditions on driving

Cardiovascular conditions may affect the ability to drive safely due to sudden incapacity such as from a heart attack or arrhythmia. They may also affect concentration and the ability to control a vehicle due to the onset of chest pain, palpitations or breathlessness.

Cardiovascular conditions may also have end-organ effects such as on the brain (stroke), the extremities and the eyes. The relevant chapters should be referred to for advice on the assessment and requirements for these effects (refer to section 6 [Neurological conditions](#) and section 10 [Vision and eye disorders](#)).

2.1.2 Effects of driving on the heart

A further problem in those who have established ischaemic heart disease is that situations experienced while driving may lead to a faster heart rate and fluctuation in blood pressure, which could trigger angina or even infarction.

2.1.3 Evidence of crash risk

Evidence suggests that people who have severe and even fatal heart attacks while driving may have sufficient warning to slow down or stop before losing consciousness, since less than half of such attacks result in property damage and injury. However, sometimes no warning occurs or a warning sign is misinterpreted or ignored, and this may result in severe injury or death to the driver and other road users. The quality of available evidence is variable and there are a number of sources of potential bias, thus drawing clear conclusions is not possible (refer to Part A section 1.6 [Development and evidence base](#)).¹

2.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

2.2.1 Non-driving periods

A number of cardiovascular incidents and procedures affect short-term driving capacity as well as long-term licensing status, for example, acute myocardial infarction and cardiac surgery. Such situations present an obvious driving risk that cannot be addressed by the licensing process in the short-term. The person should be advised not to drive for the appropriate period, as shown in Table 6 overleaf. The variation in non-driving periods reflects the varying effects of these conditions and is based on expert opinion. These non-driving periods are minimum advisory periods only and are not enforceable by the licensing process. The recommendations regarding long-term licence status (including conditional licences) should be considered once the condition has stabilised and driving capacity can be assessed as per the licensing standards outlined in this chapter.

2.2.2 Ischaemic heart disease

In individuals with ischaemic heart disease, the severity rather than the mere presence of ischaemic heart disease should be the primary consideration in assessing fitness to drive. The health professional should consider any symptoms of sufficient severity to be a risk while driving. Those who have had a previous myocardial infarction or similar event are at greater risk of recurrence than the normal population, thus cardiac history is an important consideration. An electrocardiogram (ECG) should be performed if clinically indicated.

Exercise testing: The Bruce protocol is recommended for formal exercise testing. Nomograms for assessing functional capacity are shown in Figure 7A and B.

Suspected angina pectoris: Where chest pains of uncertain origin are reported, every attempt should be made to reach a diagnosis. In the meantime, the person should be advised to restrict their driving until their licence status is determined, particularly in the case of commercial vehicle drivers. If the tests are positive or the person remains symptomatic and requires anti-anginal medication for the control of symptoms, the requirements listed for proven angina pectoris apply (refer to page 44).

Risk factors: Multiple risk factors interact in the development of ischaemic heart disease and stroke. These factors include age, sex, high blood pressure, smoking, total cholesterol:HDL ratio, diabetes, ECG changes, family history and sedentary lifestyle. The combined effect of these factors on risk of cardiovascular disease may be calculated using the Australian Cardiovascular Risk Charts (an electronic calculator is available at www.cvdcheck.org.au).

Routine screening for these risk factors is not required for licensing purposes, except where specified for certain commercial vehicle drivers as part of their additional accreditation or endorsement requirements. However, when a risk factor such as high blood pressure is being managed it is good practice to assess other risk factors and to calculate overall risk. This risk assessment may be helpful additional information in determining fitness to drive, especially for commercial vehicle drivers (refer also to section 2.2.3 [High blood pressure](#)).

Table 6: Suggested non-driving periods post-cardiovascular events or procedures

EVENT/PROCEDURE	MINIMUM NON-DRIVING PERIOD (ADVISORY)	
	PRIVATE VEHICLE DRIVERS	COMMERCIAL VEHICLE DRIVERS
Ischaemic heart disease		
Acute myocardial infarction	2 weeks	4 weeks
Percutaneous coronary intervention, for example, for angioplasty	2 days	4 weeks
Coronary artery bypass grafts	4 weeks	3 months
Disorders of rate, rhythm and conduction		
Cardiac arrest	6 months	6 months
Implantable cardioverter defibrillator (ICD) insertion	6 months after cardiac arrest	Not applicable*
Generator change of an ICD	2 weeks	Not applicable *
ICD therapy associated with symptoms of haemodynamic compromise	4 weeks	Not applicable *
Cardiac pacemaker insertion	2 weeks	4 weeks
Vascular disease		
Aneurysm repair	4 weeks	3 months
Valvular replacement	4 weeks	3 months
Other		
Deep vein thrombosis	2 weeks	2 weeks
Heart/lung transplant	6 weeks	3 months
Pulmonary embolism	6 weeks	6 weeks
Syncope (due to cardiovascular causes)	4 weeks	3 months

* Persons with ICD are not eligible to hold a commercial vehicle licence (refer to page 48).

2.2.3 High blood pressure

The cut-off blood pressure values at which a person is considered unfit to hold an unconditional licence do not reflect usual goals for managing hypertension. Rather, they reflect levels that are likely to be associated with sudden incapacity due to neurological events (e.g. stroke). The cut-off points are based on expert opinion.

It is a general requirement that conditional licences for commercial vehicle drivers are issued by the driver licensing authority based on the advice of an appropriate medical specialist, and that these drivers are reviewed periodically by the specialist to determine their ongoing fitness to drive (refer to Part A section 3.4 Conditional licences). In the case of high blood pressure, ongoing fitness to drive may be assessed by the treating general practitioner, provided this is mutually agreed by the specialist and the general practitioner. The initial recommendation of a conditional licence must, however, be based on the opinion of the specialist.

2.2.4 Cardiac surgery (open chest)

Cardiac surgery may be performed for various reasons including valve replacement, excision of atrial myxoma, correction of septal defects, etc. In some cases this is curative of the underlying disorder and so will not affect licence status for private or commercial vehicle drivers (refer also to Table 6). In other cases, the condition may not be stabilised and the effect on driving safety and hence on licence status needs to be individually assessed. All cardiac surgery patients should be advised regarding safety of driving in the short term as for any other post-surgery patient (e.g. taking into account the limitation of chest and shoulder movements after sternotomy).

2.2.5 Disorders of rate, rhythm and conduction

Individuals with recurrent arrhythmias causing syncope or pre-syncope are usually not fit to drive. A conditional licence may be considered after appropriate treatment and an event-free non-driving period (refer to Table 6).

2.2.6 Long-term anticoagulant therapy

Long-term anticoagulant therapy may be used to lessen the risk of emboli in disorders of cardiac rhythm, following valve replacement, for deep venous thrombosis, etc. If not adequately controlled, there is a risk of bleeding that, in the case of an intracranial bleed, may acutely affect driving. People on private vehicle licences may drive without licence restriction and without reporting to the driver licensing authority if the treating doctor considers anticoagulation is maintained at the appropriate level for the underlying condition. Commercial vehicle drivers do not meet the requirements for an unconditional licence and may drive only with a conditional licence.

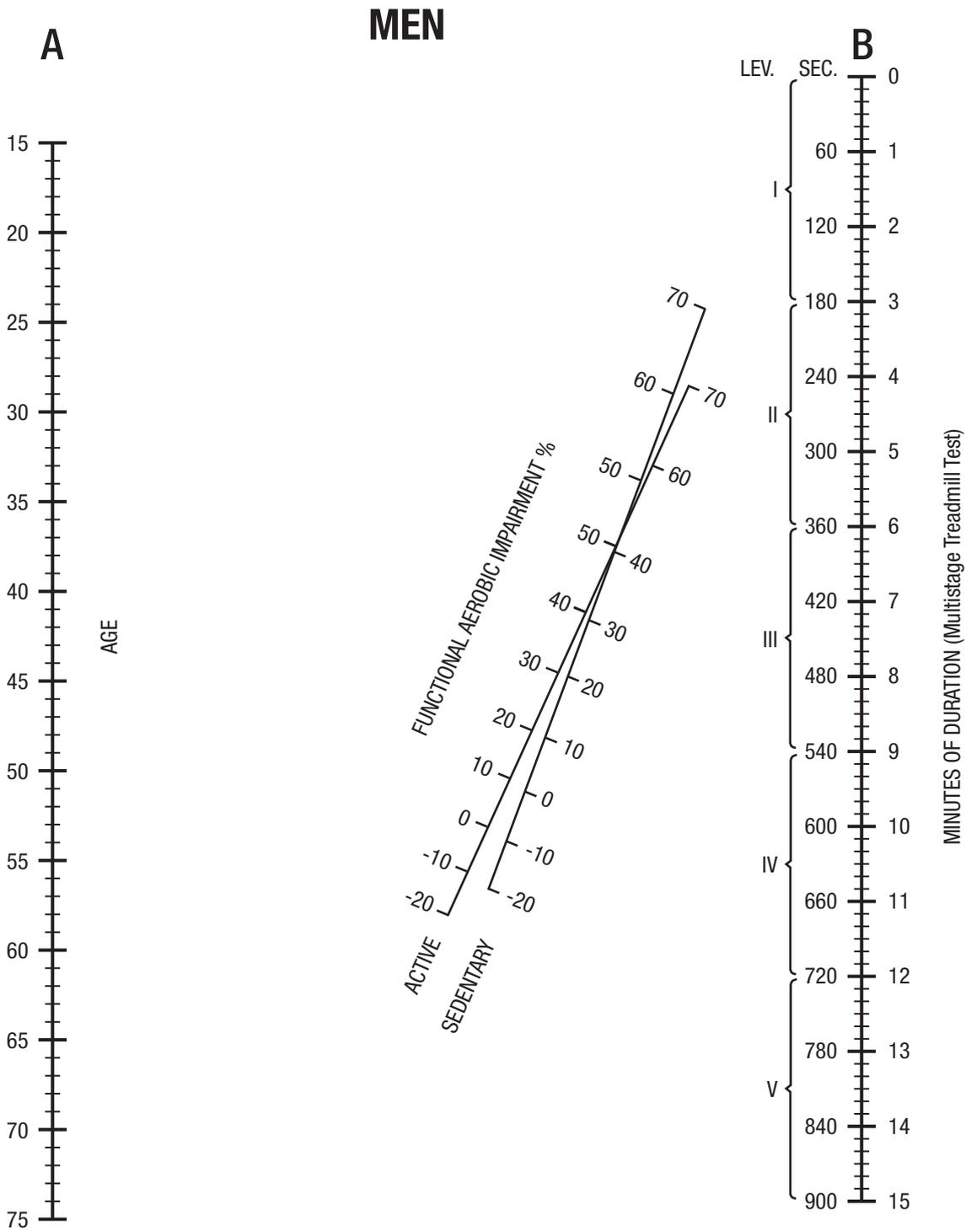
2.2.7 Deep vein thrombosis (DVT) and pulmonary embolism (PE)

While deep vein thrombosis may lead to an acute pulmonary embolus, there is little evidence that such an event causes crashes. Therefore, no standard applies for either DVT or PE, although non-driving periods are advised (refer to Table 6). If long-term anticoagulation treatment is prescribed, the standard for anticoagulant therapy should be applied (refer to section [2.2.6 Long-term anticoagulant therapy](#)).

2.2.8 Syncope

If an episode of syncope is vasovagal in nature with a clear-cut precipitating factor (such as venesection), and the situation is unlikely to occur while driving, the person may generally resume driving within 24 hours. With syncope due to other cardiovascular causes, an appropriate non-driving period should be advised (at least four weeks for private vehicle drivers and at least three months for commercial vehicle drivers) after which time their ongoing fitness to drive should be assessed (refer page 54). In cases where it is not possible to determine an episode of loss of consciousness is due to syncope or some other cause, refer to section [1.2.2 Blackouts of undetermined mechanism](#).

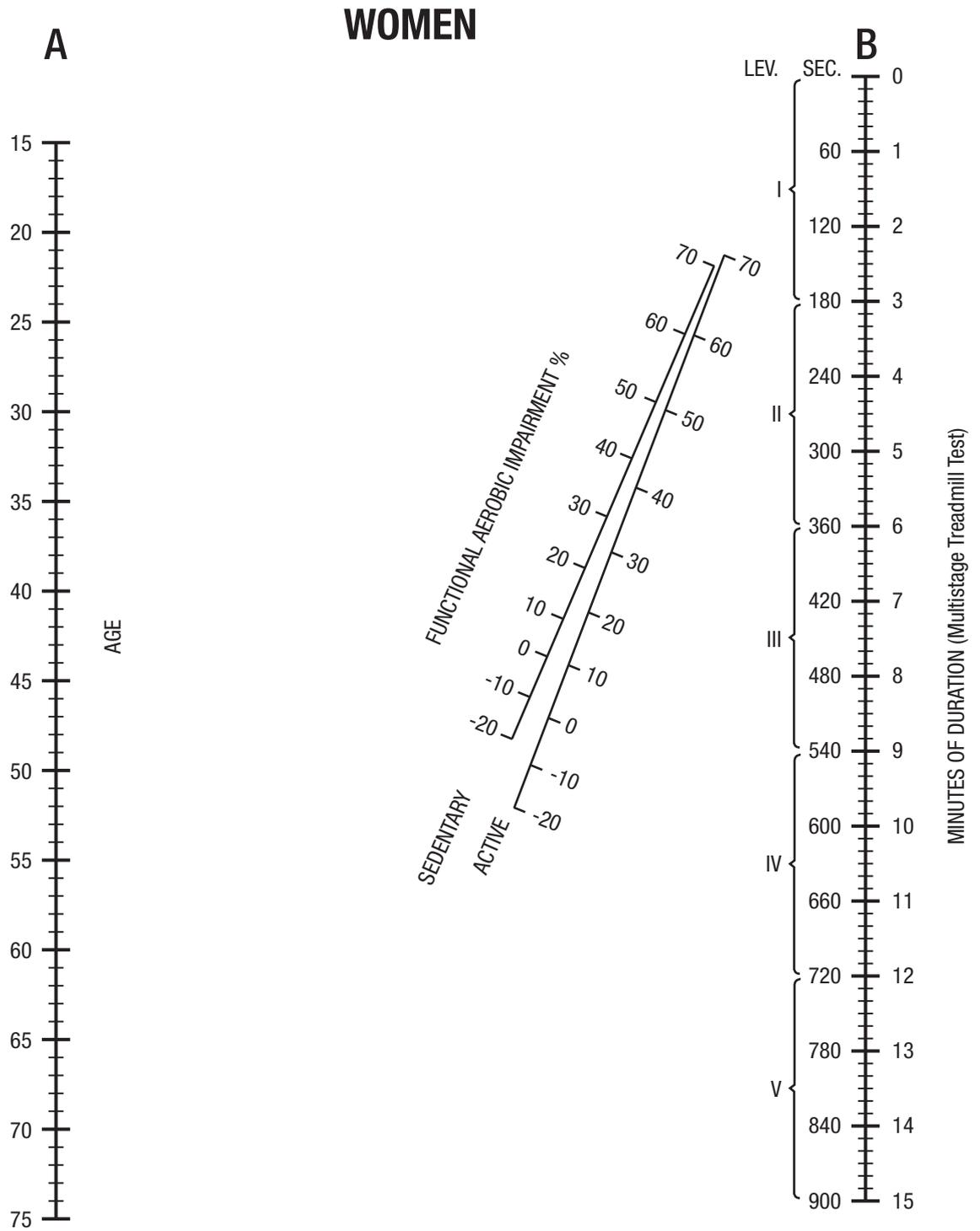
Figure 7A: Bruce protocol nomogram for men



© Robert Bruce, M.D.
Dept. of Cardiology
School of Medicine
University of Washington

Reproduced with permission
Department of Cardiology, School of Medicine, University of Washington.

Figure 7B: Bruce protocol nomogram for women



© Robert Bruce, M.D.
 Dept. of Cardiology
 School of Medicine
 University of Washington

Reproduced with permission
 Department of Cardiology, School of Medicine, University of Washington.

2.3 MEDICAL STANDARDS FOR LICENSING

2.3.1 Medical criteria

Requirements for driver licensing are included in the tables on pages 43 to 54 for the following conditions:

- **ischaemic heart disease**
 - acute myocardial infarction (AMI)
 - angina
 - coronary artery bypass grafting (CABG)
 - percutaneous coronary intervention (PCI)
- **disorders of rate, rhythm and conduction**
 - arrhythmia
 - cardiac arrest
 - cardiac pacemaker
 - implantable cardioverter defibrillator (ICD)
 - ECG changes
- **vascular disease**
 - aneurysms, abdominal and thoracic
 - deep vein thrombosis (DVT)
 - pulmonary embolism (PE)
 - valvular heart disease
- **myocardial diseases**
 - dilated cardiomyopathy
 - hypertrophic cardiomyopathy (HCM)
- **other conditions and treatments**
 - anticoagulant therapy
 - congenital disorders
 - heart failure
 - heart transplant
 - hypertension
 - stroke
 - syncope.

2.3.2 Conditional licences and periodic review

Because many cardiac conditions are stabilised and not cured, periodic review is recommended. In general the review interval should not exceed 12 months.

Where a condition has been effectively treated and there is minimal risk of recurrence, the driver may apply for reinstatement of an unconditional licence on the advice of the treating doctor or specialist (in the case of a commercial vehicle driver). Refer Part A, section [3.5 Reinstatement of licences or removal of licence conditions](#).

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Ischaemic heart disease		
<p>Acute myocardial infarction (AMI)</p> <p><i>Refer also to coronary artery bypass grafting (CABG), page 45</i></p> <p><i>Refer also to percutaneous coronary intervention (PCI), page 45</i></p>	<p>The person should not drive for at least two weeks after an AMI.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had an AMI. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> it is at least two weeks after an uncomplicated AMI; and there is a satisfactory response to treatment; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>Fitness thereafter should be assessed in terms of general convalescence.</p>	<p>The person should not drive for at least four weeks after an AMI.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had an AMI. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> it is at least four weeks after an uncomplicated AMI; and there is a satisfactory response to treatment; and there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and there is no evidence of severe ischaemia, i.e. less than 2 mm ST segment depression on an exercise ECG or, a reversible regional wall abnormality on an exercise stress echocardiogram or, absence of a large defect on a stress perfusion scan; and there is an ejection fraction of 40% or over; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness)
<p>Angina</p>	<p>A person with angina, which is usually absent on mild exertion, and who is compliant with treatment may drive without licence restriction and without notification to the driver licensing authority, subject to periodic monitoring.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person is subject to angina pectoris at rest or on minimal exertion despite medical therapy, or has unstable angina. <p>(continued overleaf)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person is subject to angina pectoris. <p>(continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Ischaemic heart disease (cont'd)		
Angina (cont'd)	<p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). 	<p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • either or both: <ul style="list-style-type: none"> - there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); - a resting or stress echocardiogram, or a myocardial perfusion study, or both, show no evidence of ischaemia; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>Myocardial ischaemia</p> <p>If myocardial ischaemia is demonstrated, a coronary angiogram may be offered.</p> <p>A conditional licence may be considered, subject to annual review if the following criterion is met:</p> <ul style="list-style-type: none"> • the coronary angiogram shows lumen diameter reduction of less than 70% in a major coronary branch, and less than 50% in the left main coronary artery. <p>If the result of the angiogram shows a lumen diameter reduction of equal to or greater than 70% in a major coronary branch and less than 50% in the left main coronary artery (or if an angiogram is not conducted), a conditional licence may be considered, subject to annual review, if the following criteria are met:</p> <ul style="list-style-type: none"> - there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and - there is no evidence of severe ischaemia, i.e. less than 2 mm ST segment depression on an exercise ECG or, a reversible regional wall abnormality on an exercise stress echocardiogram or, absence of a large defect on a stress perfusion scan; and - there is an ejection fraction of 40% or over; and - there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness) <p>The above criteria also apply if an angiogram is not conducted.</p> <p>Where surgery or PCI is undertaken to relieve the angina, the requirements listed in the table below apply.</p>

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Ischaemic heart disease (cont'd)		
Coronary artery bypass grafting (CABG)	<p>The person should not drive for at least four weeks after CABG.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person requires or has had CABG. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> it is at least four weeks after CABG; and there is a satisfactory response to treatment; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and there is minimal residual musculoskeletal pain after the chest surgery. 	<p>The person should not drive for at least three months after CABG.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person requires or has had CABG. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> it is at least three months after CABG; and there is a satisfactory response to treatment; and there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and there is no evidence of severe ischaemia, i.e. less than 2 mm ST segment depression on an exercise ECG or, a reversible regional wall abnormality on an exercise stress echocardiogram or, absence of a large defect on a stress perfusion scan; and there is an ejection fraction of 40% or over; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and there is minimal residual musculoskeletal pain after the chest surgery.
Percutaneous coronary intervention (PCI) (e.g. angioplasty)	<p>The person should not drive for at least two days after the PCI.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person requires or has had a PCI. <p>(continued overleaf)</p>	<p>The person should not drive for at least four weeks after the PCI.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person requires or has had a PCI. <p>(continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Ischaemic heart disease (cont'd)		
<p>Percutaneous coronary intervention (PCI) (e.g. angioplasty) (cont'd)</p>	<p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there was no AMI immediately before or after the PCI; and • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). 	<p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • it is at least four weeks after the PCI; and • there is a satisfactory response to treatment; and • there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and • there is no evidence of severe ischaemia, i.e. less than 2 mm ST segment depression on an exercise ECG or a reversible regional wall abnormality on an exercise stress echocardiogram or absence of a large defect on a stress perfusion scan; and • there is an ejection fraction of 40% or over; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).
Disorders of rate, rhythm and conduction		
<p>Atrial fibrillation</p>	<p>The non-driving period will depend on the method of treatment – see below.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if an episode of fibrillation results in syncope or incapacitating symptoms. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>The person should not drive for:</p> <ul style="list-style-type: none"> • at least one week following percutaneous intervention; • at least one week following initiation of successful medical treatment; • an appropriate time following open chest surgery. 	<p>The non-driving period will depend on the method of treatment – see below.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has a history of recurrent or persistent arrhythmia that may result in syncope or incapacitating symptoms. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and • appropriate follow up has been arranged. <p>The person should not drive for:</p> <ul style="list-style-type: none"> • at least four weeks following percutaneous intervention; • at least four weeks following initiation of successful medical treatment; • at least three months following open chest surgery. <p>If the person is taking anticoagulants refer to anticoagulant therapy below (page 51).</p>

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Disorders of rate, rhythm and conduction (cont'd)		
Paroxysmal arrhythmias (e.g. SVT atrial flutter, idiopathic ventricular tachycardia)	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if there was near or definite collapse. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review*, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are normal haemodynamic responses at a moderate level of exercise; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>* Where the condition is considered to be cured, the requirement for periodic review may be waived.</p>	<p>The non-driving period is at least four weeks.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if there was near or definite collapse. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review*, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are normal haemodynamic responses at a moderate level of exercise; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>The person should not drive:</p> <ul style="list-style-type: none"> • for at least four weeks following percutaneous intervention; • for at least four weeks following initiation of successful medical treatment. <p>* Where the condition is considered to be cured, the requirement for periodic review may be waived.</p>
Cardiac arrest	<p>The person should not drive for at least six months following a cardiac arrest. Limited exceptions apply – see below*.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has suffered a cardiac arrest. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • it is at least six months after the arrest; and • the cause of the cardiac arrest and response to treatment has been considered; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>* A shorter non-driving period than six months may be considered subject to specialist assessment if the cardiac arrest has occurred within 48 hours of an acute myocardial infarction, or if the arrhythmia causing the cardiac arrest has been addressed by a radio frequency ablation surgery or by pacemaker implantation.</p>	<p>The person should not drive for at least six months following a cardiac arrest.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has suffered a cardiac arrest. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • it is at least six months after the arrest; and • a reversible cause is identified and recurrence is unlikely; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Disorders of rate, rhythm and conduction (cont'd)		
<p>Cardiac pacemaker <i>Refer also to Implantable cardioverter defibrillator (ICD) below if appropriate</i></p>	<p>The person should not drive for at least two weeks after insertion of a pacemaker. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if a cardiac pacemaker is required or has been implanted or replaced. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • it is at least two weeks after insertion of the cardiac pacemaker; and • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). 	<p>The person should not drive for at least four weeks after insertion of a pacemaker. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if a cardiac pacemaker is required or has been implanted or replaced. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • it is at least four weeks after insertion of the cardiac pacemaker; and • the relative risks of pacemaker dysfunction have been considered; and • there are normal haemodynamic responses at a moderate level of exercise; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).
<p>Implantable cardioverter defibrillator (ICD)</p>	<p>The non-driving period will depend on the reason for ICD implantation – see below. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person requires or has had an ICD implanted for ventricular arrhythmias. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the ICD has been implanted for an episode of cardiac arrest and the person has been asymptomatic for six months; or • the ICD has been prophylactically implanted for at least two weeks; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>A person should not drive:</p> <ul style="list-style-type: none"> • for two weeks after a generator change of an ICD; • for at least four weeks after appropriate ICD therapy associated with symptoms of haemodynamic compromise (if syncopal, refer to syncope, page 54). 	<p>A person is not fit to hold an unconditional licence or a conditional licence:</p> <ul style="list-style-type: none"> • if the person requires or has had an ICD implanted for ventricular arrhythmias.

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Disorders of rate, rhythm and conduction (cont'd)		
<p>ECG changes: <i>Strain patterns, bundle branch blocks, heart block, etc.</i> <i>Refer also Cardiac pacemaker page 48</i></p>	<p>The person should not drive for at least two weeks following initiation of treatment. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the conduction defect is causing symptoms. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the condition has been treated procedurally or medically for at least two weeks; and there is a satisfactory response to treatment; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). <p>* Where the condition is considered to be cured, the requirement for periodic review may be waived.</p>	<p>The person should not drive for at least three months following initiation of treatment. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an electrocardiographic abnormality, for example, left bundle branch block, right bundle branch block, pre-excitation, prolonged QT interval or changes suggestive of myocardial ischaemia or previous myocardial infarction. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> all of the following: <ul style="list-style-type: none"> the condition has been treated procedurally or medically for at least three months, and there is a satisfactory response to treatment; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); or follow-up investigation has excluded underlying cardiac disease. <p>* Where the condition is considered to be cured, the requirement for periodic review may be waived.</p>
Vascular disease		
<p>Aneurysms – abdominal and thoracic</p>	<p>The person should not drive for at least four weeks post repair. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an unrepaired aortic aneurysm, thoracic or abdominal. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> both: <ul style="list-style-type: none"> it is at least four weeks after repair; and the response to treatment is satisfactory; or the aneurysm diameter is less than 5 cm. 	<p>The person should not drive for at least three months post repair. A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an unrepaired aortic aneurysm, thoracic or abdominal. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> both: <ul style="list-style-type: none"> it is at least three months after repair; and the response to treatment is satisfactory; or the aneurysm diameter is less than 5 cm.

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Vascular disease (cont'd)		
Deep vein thrombosis (DVT)	There are no licensing criteria for DVT. For advisory non-driving period following DVT refer to Table 6, page 38. For long-term anticoagulation refer to page 51. Refer also to section 2.2.7 in text.	There are no licensing criteria for DVT. For advisory non-driving period following DVT refer to Table 6, page 38. For long-term anticoagulation refer to page 51. Refer also to section 2.2.7 in text.
Pulmonary embolism (PE)	There are no licensing criteria for PE. For advisory non-driving period following PE refer to Table 6, page 38. For long-term anticoagulation refer to page 51. Refer also to section 2.2.7 in text.	There are no licensing criteria for PE. For advisory non-driving period following PE refer to Table 6, page 38. For long-term anticoagulation refer to page 51. Refer also to section 2.2.7 in text.
Valvular heart disease	<p>The person should not drive for at least four weeks following valve repair.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has symptoms on moderate exertion. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and • there is minimal residual musculoskeletal pain after chest surgery, if required. 	<p>The person should not drive for at least four weeks following valve repair.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has any history or evidence of valve disease, with or without surgical repair or replacement, associated with symptoms or a history of embolism, arrhythmia, cardiac enlargement, abnormal ECG or high blood pressure; or • if the person is taking anticoagulants (a conditional licence may be issued subject to the requirements specified on page 51 in relation to anticoagulant therapy). <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the person's cardiological assessment shows valvular disease of no haemodynamic significance; or • all of the following: <ul style="list-style-type: none"> - it is three months following surgery and there is no evidence of valvular dysfunction; and - there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and - there is minimal residual musculoskeletal pain after chest surgery.

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Myocardial diseases		
Dilated cardiomyopathy	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a dilated cardiomyopathy. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and the person is not subject to arrhythmias. <p>Cardiologist assessment is recommended for complex presentations.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a dilated cardiomyopathy. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> there is an ejection fraction of 40% or over; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and the person is not subject to arrhythmias.
Hypertrophic cardiomyopathy (HCM)	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has HCM. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); and the person is not subject to arrhythmias or syncope. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has HCM. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the left ventricular ejection fraction is 40% or over; and there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and there is an absence of: a history of syncope; severe LV hypertrophy; a family history of sudden death; or ventricular arrhythmia on Holter testing; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).
Other cardiovascular diseases		
Anticoagulant therapy	<p>A person on a private vehicle licence may drive without licence restriction and without reporting to the driver licensing authority, pending periodic review if:</p> <ul style="list-style-type: none"> anticoagulation is maintained at the appropriate degree for the underlying condition. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person is on long-term anticoagulant therapy. <p>(continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other cardiovascular diseases		
Anticoagulant therapy (con'd)		<p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criterion is met:</p> <ul style="list-style-type: none"> • anticoagulation is maintained at the appropriate degree for the underlying condition.
Congenital disorders	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has a complicated congenital heart disorder. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criterion is met:</p> <ul style="list-style-type: none"> • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has a complicated congenital heart disorder. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a minor congenital heart disorder of no haemodynamic significance such as pulmonary stenosis, atrial septal defect, small ventricular septal defect, bicuspid aortic valve, patent ductus arteriosus or mild coarctation of the aorta; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).
Heart failure	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if symptoms arise on moderate exertion. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has heart failure. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there is a satisfactory response to treatment; and • there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and • there is an ejection fraction of 40% or over; and • the underlying cause of the heart failure is considered; and • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other cardiovascular diseases (cont'd)		
Heart transplant	<p>The person should not drive for at least six weeks post transplant.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person requires or has had a heart or heart/lung transplant. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> it is at least six weeks after transplant; and there is a satisfactory response to treatment; and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). 	<p>The person should not drive for at least three months post transplant.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person requires or has had a heart or heart/lung transplant. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> it is at least three months after transplant; and there is a satisfactory response to treatment; and there is an exercise tolerance of $\geq 90\%$ of the age/sex predicted exercise capacity according to the Bruce protocol (or equivalent exercise test protocol); and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).
Hypertension	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has blood pressure consistently greater than 200 systolic or greater than 110 diastolic (treated or untreated). <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the blood pressure is well controlled; and there are no side effects from the medication that will impair safe driving; and there is no evidence of damage to target organs relevant to driving. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has blood pressure consistently greater than 170 systolic or greater than 100 diastolic (treated or untreated). <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist* as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the person is treated with antihypertensive therapy and effective control of hypertension is achieved over a four-week follow-up period; and there are no side effects from the medication that will impair safe driving; and there is no evidence of damage to target organs relevant to driving. <p>* Ongoing fitness to drive for commercial vehicle drivers may be assessed by the treating general practitioner, provided this is mutually agreed by the specialist, general practitioner and driver licensing authority. The initial granting of a conditional licence must, however, be based on information provided by the specialist.</p>

MEDICAL STANDARDS FOR LICENSING – CARDIOVASCULAR CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other cardiovascular diseases (cont'd)		
Stroke	Refer to section 6 <i>Neurological conditions</i>	Refer to section 6 <i>Neurological conditions</i>
Syncope <i>Refer also to section 1 Blackouts</i>	<p>The person could resume driving within 24 hours if the episode was vasovagal in nature with a clear-cut precipitating factor (such as venesection) and the situation is unlikely to occur while driving. The driver licensing authority should not be notified.</p> <p>The person should not drive for at least four weeks after syncope due to other cardiovascular causes.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the condition is severe enough to cause episodes of loss of consciousness without warning. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the underlying cause has been identified; and • satisfactory treatment has been instituted; and • the person has been symptom-free for at least four weeks. 	<p>The person could resume driving within 24 hours if the episode was vasovagal in nature with a clear-cut precipitating factor (such as venesection) and the situation is unlikely to occur while driving. The driver licensing authority should not be notified.</p> <p>The person should not drive for at least three months after syncope due to other cardiovascular causes.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the condition is severe enough to cause episodes of loss of consciousness without warning. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating specialist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the underlying cause has been identified; and • satisfactory treatment has been instituted; and • the person has been symptom-free for three months.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Canadian Council of Motor Transport Administrators Medical Standards for Drivers. March 2009 www.ccmta.ca/english/pdf/medical_standards_march_2009.pdf

3. DIABETES MELLITUS

Refer also to section 6 [Neurological conditions](#), section 2 [Cardiovascular conditions](#), section 8 [Sleep disorders](#) and section 10 [Vision and eye disorders](#).

3.1 RELEVANCE TO THE DRIVING TASK

3.1.1 Effects of diabetes on driving

Diabetes may affect a person's ability to drive, either through a 'severe hypoglycaemic event' or from end-organ effects on relevant functions, including effects on vision, the heart, and the peripheral nerves and vasculature of the extremities, particularly the feet. In people with type 2 diabetes, sleep apnoea is also more common (refer to section 8 [Sleep disorders](#)). The main hazard in people with insulin-treated diabetes is the unexpected occurrence of hypoglycaemia.

3.1.2 Evidence of crash risk

There is little concurrence among the findings of studies on diabetes and crash risk, largely due to the methodological problems that arise in these studies (refer to Part A section 1.6 [Development and evidence base](#)). The potential effects of hypoglycaemia are of most concern to road safety but this has been addressed in few studies.¹ However, findings point to a higher risk among those with a history of severe hypoglycaemia.²

3.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

General management of diabetes in relation to fitness to drive is summarised in Figure 8.

3.2.1 Hypoglycaemia

Definition: severe hypoglycaemic event

For the purposes of this document, a 'severe hypoglycaemic event' is defined as an event of hypoglycaemia of sufficient severity such that the person is unable to treat the hypoglycaemia themselves and thus requires an outside party to administer treatment. It includes hypoglycaemia causing loss of consciousness. It can occur during driving or at any other time of the day or night. A 'severe hypoglycaemic event' is particularly relevant to driving because it affects brain function and may cause impairment of perception, motor skills or consciousness. It may also cause abnormal behaviour. A 'severe hypoglycaemic event' is to be distinguished from mild hypoglycaemic events, with symptoms such as sweating, tremulousness, hunger and tingling around the mouth, which are common occurrences in the life of a person with diabetes treated with insulin and some hypoglycaemic agents.

Potential causes

Hypoglycaemia may be caused by many factors including non-adherence or alteration to medication, unexpected exertion, alcohol intake, or irregular meals. Irregular meals and variability in medication administration may be an important consideration with long-distance commercial driving or those operating on shifts. Impairment of consciousness and judgement can develop rapidly and result in loss of control of a vehicle.

Advice to drivers

The driver should be advised not to drive if a 'severe hypoglycaemic event' is experienced while driving or at any other time, until they have been cleared to drive by the appropriate medical practitioner. The driver should also be advised to take appropriate precautionary steps to help avoid a 'severe hypoglycaemic event', for example, by:

- complying with specified medical review requirements (general practitioner or specialist)
- not driving if their blood glucose is less than 5 mmol/L
- not driving for more than two hours without considering having a snack
- not delaying or missing a main meal
- self-monitoring blood glucose levels before driving and every two hours during a journey, as reasonably practical
- carrying adequate glucose in the vehicle for self-treatment
- treating mild hypoglycaemia if symptoms occur while driving including:
 - safely steering the vehicle to the side of the road
 - turning off the engine and removing the keys from the ignition

- self-treating the low blood glucose
- checking the blood glucose levels 15 minutes or more after the hypoglycaemia has been treated and ensuring it is above 5 mmol/L
- not recommencing driving until feeling well and until at least 30 minutes after the blood glucose is above 5 mmol/L.

Non-driving period after a 'severe hypoglycaemic event'

If a 'severe hypoglycaemic event' occurs, the person should not drive for a significant period of time. The **minimum period** of time before returning to drive is generally **six weeks** because it often takes many weeks for patterns of glucose control and behaviour to be re-established and for any temporary 'lack of hypoglycaemia awareness' to resolve. The non-driving period will depend on factors such as the identification of the reason for the episode, specialist opinion and the type of motor vehicle licence. Specialist support of a return to driving should be based on patient behaviour and objective measures of glycaemic control (documented blood glucose) over a reasonable time interval.

Lack of hypoglycaemia awareness

Lack of hypoglycaemia awareness exists when a person does not regularly sense the usual early warning symptoms of mild hypoglycaemia such as sweating, tremulousness, hunger, tingling around the mouth, palpitations and headache. It is more common in people with insulin-treated diabetes of longer duration (more than 10 years), and it markedly increases the risk of a 'severe hypoglycaemic event' occurring.³

When lack of hypoglycaemia awareness develops in a person who has experienced a severe hypoglycaemic event, it may improve in the subsequent weeks and months if further hypoglycaemia can be avoided.

A person with persistent lack of hypoglycaemia awareness should be under the regular care of a medical practitioner with expert knowledge in managing diabetes (e.g. endocrinologist or diabetes specialist), who should be involved in assessing their fitness to drive. As reflected in the standards table on page 60, any driver who has a persistent lack of hypoglycaemia awareness is generally not fit to drive unless their ability to experience early warning symptoms returns. However, for private drivers, a conditional licence may be considered by the driver licensing authority, taking into account the opinion of an appropriate specialist, the nature and extent of the driving involved and the driver's self-care behaviours.

In managing lack of hypoglycaemic awareness, the medical practitioner should focus on aspects of the person's self-care to minimise a severe hypoglycaemic event occurring while driving, including steps described above (*Advice to drivers*). In addition, self-care behaviours that help to minimise severe hypoglycaemic events in general should be a major ongoing focus of regular diabetes care. This requires attention by both the medical practitioner and the person with diabetes to diet and exercise approaches, insulin regimens and blood glucose testing protocols.

3.2.2 Acute hyperglycaemia

While acute hyperglycaemia may affect some aspects of brain function, there is insufficient evidence to determine regular effects on driving performance and related crash risk. Each person with diabetes should be counselled about management of their diabetes during days when they are unwell and should be advised not to drive if they are acutely unwell with metabolically unstable diabetes.

3.2.3 Comorbidities and end-organ complications

Assessment and management of comorbidities is an important aspect of managing people with diabetes with respect to their fitness to drive. This includes but is not limited to the following.

- **Vision:** (refer to section 10 [Vision and eye disorders](#)).
- **Neuropathy and foot care:** While it can be difficult to be prescriptive about neuropathy in the context of driving, it is important that the severity of the condition is assessed. Adequate sensation for the operation of foot controls is required (refer to section 6 [Neurological conditions](#) and section 5 [Musculoskeletal conditions](#)).
- **Sleep apnoea:** Sleep apnoea is a common comorbidity affecting many people with type 2 diabetes and has substantial implications for road safety. The treating health professional should be alert to potential signs and symptoms, and apply the Epworth Sleepiness Scale as appropriate (refer to section 8 [Sleep disorders](#)).
- **Cardiovascular:** There are no diabetes-specific medical standards for cardiovascular risk factors and driver licensing. Consistent with good medical practice, people with diabetes should have their cardiovascular risk factors periodically assessed and treated as required (refer to section 2 [Cardiovascular conditions](#)).

3.2.4 Gestational diabetes mellitus

The standards in this chapter apply to diabetes mellitus as a chronic condition. The self-limiting condition known as gestational diabetes mellitus (GDM) does not impact on licensing. However, consideration should be given to short-term fitness to drive in women with GDM treated with insulin, although severe hypoglycaemia in this setting is rare. Affected persons should be counselled to recognise symptoms and to restrict driving when symptoms occur.

3.3 MEDICAL STANDARDS FOR LICENSING

Medical requirements for unconditional and conditional licences are outlined in the table on pages 60 and 61.

3.3.1 Diabetes treated by glucose-lowering agents other than insulin

Private vehicle drivers treated by glucose-lowering agents other than insulin may generally drive without licence restriction (i.e. on an unconditional licence) but should be required by the driver licensing authority to have five-yearly reviews. Commercial vehicle drivers in this situation are required to have at least annual specialist review to monitor progression of their condition.

3.3.2 Satisfactory control of diabetes

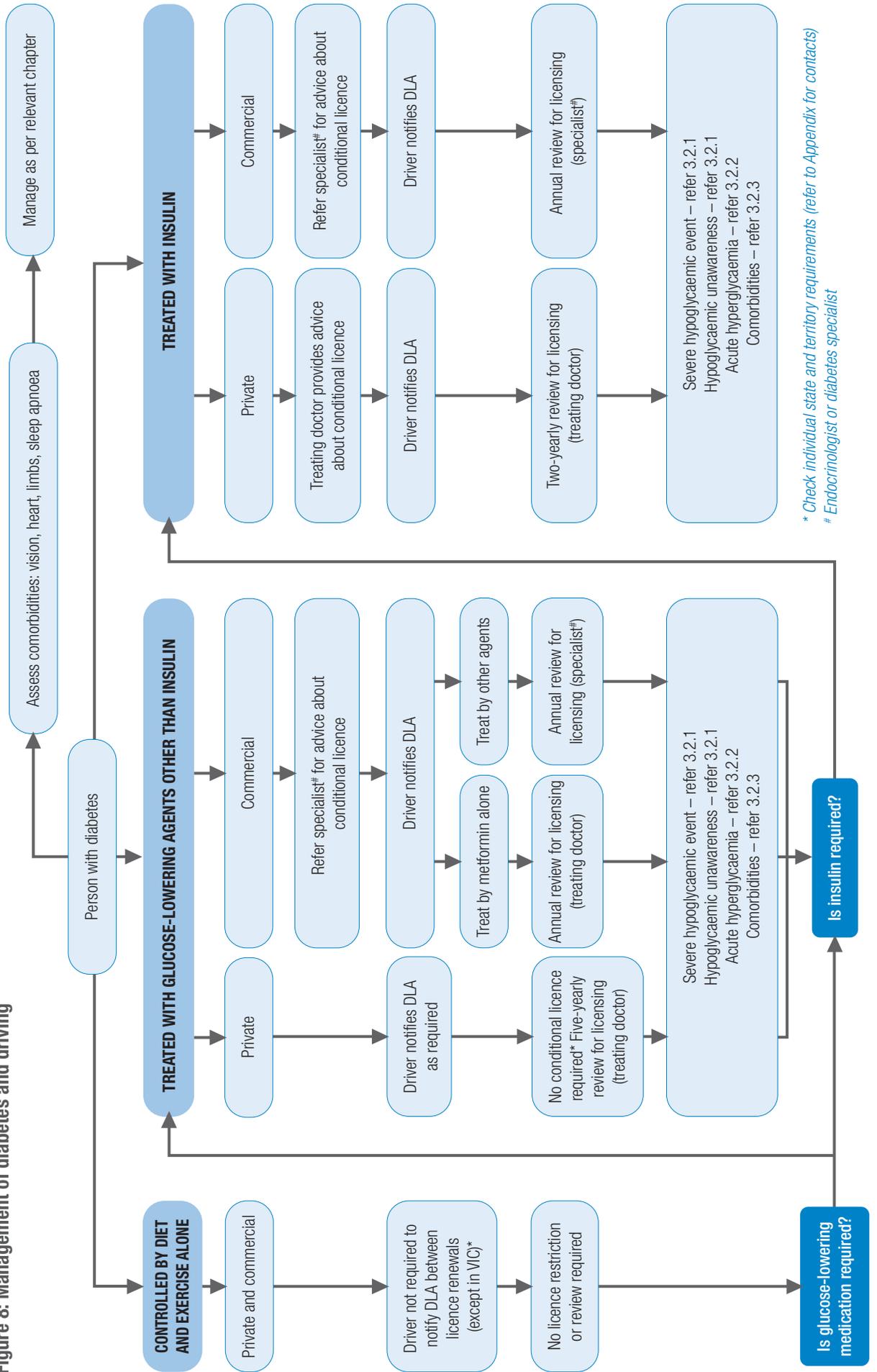
When assessing whether the criteria for a conditional licence are met, for the purposes of the assessment diabetes can generally be considered to be “satisfactorily controlled” if there is a glycated haemoglobin (HbA1c) level of less than 9.0% (75 mmol/mol) measured within the preceding three months, as against a general goal of less than 7.0% in people with diabetes. A HbA1c level of 9.0% or higher should usually trigger a formal consultation and assessment by a specialist or clinician experienced in the management of diabetes, in order to assess fitness to drive.

For people on insulin treatment, blood glucose monitoring records and other related records should also be reviewed. In general for commercial vehicle drivers on insulin, at least the last three months of blood glucose monitoring records should be reviewed, whilst for private vehicle drivers on insulin, records of blood glucose monitoring across recent months should be reviewed.

3.3.3 Recommendation and review of conditional licences for commercial vehicle drivers

It is a general requirement that conditional licences for commercial vehicle drivers are issued by the driver licensing authority based on advice from an appropriate medical specialist, and that these drivers are reviewed periodically by the specialist to determine their ongoing fitness to drive (refer to Part A section [3.4 Conditional licences](#)). In the case of type 2 diabetes managed by metformin alone, ongoing fitness to drive may be assessed by the treating general practitioner by mutual agreement with the treating specialist. The initial recommendation of a conditional licence must, however, be based on the opinion of a specialist in diabetes.

Figure 8: Management of diabetes and driving



* Check individual state and territory requirements (refer to Appendix for contacts)
 # Endocrinologist or diabetes specialist

MEDICAL STANDARDS FOR LICENSING – DIABETES MELLITUS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Diabetes controlled by diet and exercise alone	A person with diabetes treated by diet and exercise alone may drive without licence restriction. They should be reviewed by their treating doctor periodically regarding progression of diabetes.	A person with diabetes treated by diet and exercise alone may drive without licence restriction. They should be reviewed by their treating doctor periodically regarding progression of diabetes.
<p>Diabetes treated by glucose lowering agents other than insulin</p> <p>For management of a 'severe hypoglycaemic event' refer to section 3.2.1.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has end-organ complications that may affect driving, as per this publication, or the person has had a recent 'severe hypoglycaemic event'. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into consideration the nature of the driving task, and information provided by the treating doctor on whether the following criteria are met:</p> <ul style="list-style-type: none"> any end-organ effects are satisfactorily treated, with reference to the standards in this publication; and the person is following a treatment regimen that minimises the risk of hypoglycaemia; and the person experiences early warning symptoms (awareness) of hypoglycaemia; and any recent 'severe hypoglycaemic event' has been satisfactorily treated, with reference to the standards in this publication (refer to section 3.2.1). <p>For private drivers who do not meet the above criteria, a conditional licence may be considered by the driver licensing authority, taking into account the opinion of specialist in endocrinology or diabetes and subject to regular specialist review.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has non-insulin treated diabetes mellitus and is being treated with glucose-lowering agents other than insulin. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into consideration the nature of the driving task and information provided by a specialist in endocrinology or diabetes* on whether the following criteria are met:</p> <ul style="list-style-type: none"> the condition is satisfactorily controlled (refer to section 3.3.2) and the person is adherent with treatment; and there is no recent history of a 'severe hypoglycaemic event' as assessed by the specialist; and the person experiences early warning symptoms (awareness) of hypoglycaemia; and the person is following a treatment regimen that minimises the risk of hypoglycaemia; and there is an absence of end-organ effects that may affect driving as per this publication. <p>* For a commercial driver with type 2 diabetes who is being treated with metformin alone, the annual review for a conditional licence may be undertaken by the driver's treating doctor upon mutual agreement of the treating doctor, specialist and driver licensing authority. The initial granting of a conditional licence must, however, be based on information provided by the specialist.</p>

MEDICAL STANDARDS FOR LICENSING – DIABETES MELLITUS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Insulin-treated diabetes (except gestational diabetes)</p> <p>For management of a 'severe hypoglycaemic event' refer to section 3.2.1.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has insulin-treated diabetes. <p>A conditional licence may be considered by the driver licensing authority subject to at least two-yearly review, taking into consideration the nature of the driving task and information provided by the treating doctor on whether the following criteria are met:</p> <ul style="list-style-type: none"> • the condition is satisfactorily controlled (refer to section 3.3.2); and • there is no recent history of a 'severe hypoglycaemic event'; and • the person is following a treatment regimen that minimises the risk of hypoglycaemia; and • the person experiences early warning symptoms (awareness) of hypoglycaemia (refer to section 3.2.1); and • there are no end-organ effects that may affect driving as per this publication. <p>For private drivers who do not meet the above criteria, a conditional licence may be considered by the driver licensing authority taking into account the opinion of specialist in endocrinology or diabetes and subject to regular specialist review.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has insulin-treated diabetes. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into consideration the nature of the driving task and information provided by a specialist in endocrinology or diabetes on whether the following criteria are met:</p> <ul style="list-style-type: none"> • the condition is satisfactorily controlled (refer to section 3.3.2) and the person is adherent with treatment; and • there is no recent history (generally at least six weeks) of a 'severe hypoglycaemic event' as assessed by the specialist; and • the person is following a treatment regimen that minimises the risk of hypoglycaemia; and • the person experiences early warning symptoms (awareness) of hypoglycaemia (refer to section 3.2.1); and • there are no end-organ effects that may affect driving as per this publication.

The review of this chapter has been coordinated by the Australian Diabetes Society Driving and Diabetes Working Party via funding under the National Diabetes Services Scheme (NDSS).

The National Diabetes Services Scheme (NDSS) is an initiative of the Australia Government administered by Diabetes Australia. The NDSS provides information and support services to people with diabetes. Registration is free and open to all Australians diagnosed with diabetes. Refer to www.ndss.com.au

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section [4.5 Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Cox DJ, Ford D, Gonder-Frederick L, Clarke W, Mazze R, Weinger K, Ritterband L, Driving mishaps among individuals with type 1 diabetes: a prospective study. *Diabetes Care*, 2009; 32(12):2177–2180.
3. Høi-Hansen T, Pedersen-Bjergaard U, Thorsteinsson B, Classification of hypoglycemia awareness in people with type 1 diabetes in clinical practice. *J Diabetes Complications*, 2009 [ahead of print], PMID: 19796968.

4. HEARING

4.1 RELEVANCE TO THE DRIVING TASK

4.1.1 Effect of hearing loss on driving

Mild to moderate hearing loss does not appear to affect a person's ability to drive safely. It may be that a loss of hearing is well compensated for since most people who are hard of hearing are aware of their disability and therefore tend to be more cautious and to rely more on visual cues.

4.1.2 Considerations for commercial vehicle drivers

While driving ability per se might not be affected by a hearing deficiency, responsiveness to critical events is an important safety consideration for drivers of commercial vehicles. These drivers therefore require a reasonable level of hearing to ensure their awareness of changes in engine or road noises that may signal developing problems, and their awareness of horns, rail crossings, emergency signals and sirens.

4.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

Only drivers of commercial vehicles are required to meet a hearing standard for the reasons outlined above. Compliance with the standard should be clinically assessed initially. If there is doubt about the person's hearing, audiometry should be arranged.

People with congenital or childhood conditions may have developed coping strategies that enable safe driving despite their impairment. They will require individual assessment by a specialist. They may also need tutoring prior to a practical assessment. While they may require a conditional licence to identify specific vehicle modifications, if the condition is static they need not require periodic review.

While hearing loss is not considered to preclude driving a private car, people with severe hearing losses should be advised regarding their loss and their limited ability to hear warning signals, etc. Those with hearing aids should be encouraged to wear them when driving. Engineering solutions, such as additional mirrors, might also be recommended upon consideration of the needs of the individual driver.

4.3 MEDICAL STANDARDS FOR LICENSING

Requirements for unconditional and conditional licences are outlined in the table overleaf.

In addition to appropriately fitted hearing aids, various engineering solutions are available to help compensate for the risk to safety that may arise from a hearing disability. These include:

- mirrors appropriate to the vehicle to enhance rear view
- alerting devices that provide a warning signal (visual display) when sirens, horns and other loud noises are detected
- technologies providing (visual) warning signals to guide safe truck operation, for example, air pressure in braking systems, tyre pressure monitoring.

These may be considered in recommending a conditional licence for a commercial vehicle driver. They are also valuable considerations for any hearing-impaired driver.

HEARING

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person’s fitness to drive.

MEDICAL STANDARDS FOR LICENSING – HEARING		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Hearing loss	<p>There is no hearing standard for private vehicle drivers.</p> <p>Refer to <i>General assessment and management guidelines</i> (page 63).</p>	<p>Compliance with the standards should be clinically assessed initially and a possible hearing loss measured by conducting audiometry.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has unaided hearing loss greater than or equal to 40db in the better ear (averaged over the frequencies 0.5, 1, 2 and 3 KHz). <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by an ear nose and throat specialist or audiologist as to whether:</p> <ul style="list-style-type: none"> the standard is met with a hearing aid. <p>Further assessment of the person may be arranged with the driver licensing authority and advice may be sought regarding modifications to the vehicle to provide a visual display of safety critical operations.</p> <p>For congenital or childhood hearing loss refer to guidance in the text (page 63).</p>

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section [4.5 Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

5. MUSCULOSKELETAL CONDITIONS

Refer also to Part A section 4.8 [Drugs and driving](#); Part B section 6 [Neurological conditions](#), section 10 [Vision and eye disorders](#).

This section deals with fitness to drive in relation to a variety of musculoskeletal conditions and disabilities that may result in chronic pain, muscle weakness, joint stiffness or loss of limbs. Specific neuromuscular conditions, such as multiple sclerosis, are addressed under section 6 [Neurological conditions](#). Musculoskeletal conditions are also likely to coexist with other impairments, such as visual and cognitive impairment, particularly in older people. For guidance in assessing multiple medical conditions refer to Part A section 4.5 [Multiple conditions and age-related change](#).

5.1 RELEVANCE TO THE DRIVING TASK

5.1.1 Effects of musculoskeletal conditions on driving

A motor vehicle driver must be able to execute and coordinate many complex muscular movements in order to control the vehicle (refer to Figure 9). They must have an adequate range of movement, sensation, coordination and power of the upper and lower limbs. Generally speaking, the upper extremities are needed to steer, shift gears and operate secondary vehicle controls (e.g. indicators and horn). The lower extremities are required to operate the clutch, brake and accelerator pedals. The ability to rotate the head is particularly important to permit scanning of the environment including when reversing.

Chronic impairment of the musculoskeletal system may arise from numerous disorders and trauma (e.g. amputations, arthritis, ankylosis, deformities and chronic lower back pain) resulting in limited range of movement or reduced sensation, balance, coordination or power. Issues related to muscle tone, spasm, sitting tolerance and endurance, as well as the effects of medications such as long-term opioid-based analgesics, may also need to be considered (refer to Part A section 4.8 [Drugs and driving](#)).

It is possible to drive safely with quite severe impairment; however, driver insight into functional limitations, stability of the condition and compensatory body movements or vehicle devices to overcome deficits are usually required. Adaptive equipment can be installed in many vehicles (e.g. hand-operated brake and accelerator, automatic transmission and height-adjustable seats) that enable many drivers with impairments to operate vehicles safely (refer to Table 7).

It should be noted that vehicles, especially commercial vehicles, vary considerably in terms of cabin design, vehicle controls and ergonomics. The needs of motorcyclists also differ due to the type of controls and the overall driving task, as well as requirements for balance and agility. Given this variability in requirements, the medical standards are based on functionality with respect to the particular vehicle and driving task rather than specific requirements in terms of range of movement.

5.1.2 Evidence of crash risk¹

There is limited published data on the risk of a crash or loss of control of a vehicle due to musculoskeletal disorders. While several studies describe driving difficulties experienced by people with physical impairment affecting the musculoskeletal system, the evidence suggests there is only a slightly increased risk of crash associated with these disorders. This may be attributed to drivers' ability to compensate for physical impairments while driving or, as for various other conditions, it may be due to self-limiting of driving by people with these conditions.

5.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

5.2.1 Clinical assessment

Figure 9 shows the general functional requirements for driving a motor vehicle, accepting that there is considerable variation depending on the specific vehicle. The cab of a commercial vehicle is reached by climbing up to it, the gear shift is more complicated and the pedals are often heavier to use than in a private car. The aim of a medical assessment is to identify drivers with functional problems that are likely to result in difficulty undertaking the driving task. A number of specific factors need to be considered when assessing fitness to drive:

- the strength of muscles to safely carry out driving functions
- the level of flexibility of individual joints or limbs to allow adequate mobility for safe driving
- the presence of pain that may impede movement and reduce the level of safety
- the person's endurance
- the person's sensory abilities (sensation, proprioception, kinaesthesia).

Figure 9: General functional requirements for driving motor vehicles (excluding motorcycles)

UPPER LIMBS

Able to move upper limb/s with sufficient range of movement, sensation, coordination and power to achieve required movements to:

- operate ignition
- hold and turn steering wheel
- operate secondary vehicle controls consistently (e.g. indicators)
- operate gear lever and hand brake (if needed).

NECK MOVEMENTS

Able to stabilise head and rotate neck to achieve required movements to:

- turn head to both sides to scan road and view mirrors
- turn head for reversing.

LOWER LIMBS

Able to move lower limb/s with sufficient range of movement, sensation, coordination and power to operate foot controls.

BACK MOVEMENTS

Able to maintain posture and move spine so as to support positions of head, upper and lower limbs needed for driving-related tasks.

5.2.2 Functional and practical assessment

A functional assessment and/or practical driver assessment may be required in addition to a clinical examination in order to provide appropriate information regarding a person’s fitness to drive. The assessment may also identify requirements for vehicle adaptation or personal restrictions (refer to Table 7 for examples).

Processes for initiating and conducting driver assessments vary between the states and territories. Practical assessments may be conducted by occupational therapists or others approved by the particular driver licensing authority (refer to Part A section 4.9 [Practical driver assessments](#)). The assessments may be initiated by the examining health professional or by the driver licensing authority. Recommendations following assessment may relate to licence status, the need for rehabilitation or retraining, licence conditions such as vehicle modification or personal restrictions, and requirements for reassessment. Information about the options for practical driver assessment in your state or territory can be obtained by contacting your local driver licensing authority ([Appendix 8: Driver licensing authority contacts](#)). For information about occupational therapists qualified in driver assessment, contact OT Australia (refer to [Appendix 9: Specialist driver assessors](#)).

In the case of a driver seeking a conditional commercial vehicle licence, the person will have to initially demonstrate proficiency in driving a light vehicle (car) prior to being assessed in a commercial vehicle. For the commercial vehicle licence, an on-road driver assessment will need to be undertaken in the commercial vehicle and with modifications if required. This assessment should be conducted as required by the driver licensing authority.

Motorcyclists with a musculoskeletal disability will require a practical driver assessment (refer to Part A section 4.9 [Practical driver assessments](#)).

Table 7: Examples of vehicle modifications and personal restrictions relevant to musculoskeletal disorders*

EXAMPLE OF DISABILITY/SITUATION	EXAMPLES OF LICENCE CONDITIONS (VEHICLE MODIFICATION OR PERSONAL RESTRICTIONS)
Left leg disability, left arm disability	Automatic transmission
Short stature	Built-up seat and pedals
Loss of leg function	Hand-operated controls
Loss of right leg function	Left foot accelerator
Reduced lower limb strength	Power brakes only
Reduced upper limb strength	Power steering only
Short leg/s	Extended pedals
Loss of limb function/limb deficient	Prosthesis required

*these are not mandatory requirements and may be unsuitable in some circumstances.

5.2.3 Congenital or non-progressive conditions

Drivers who have conditions of a non-progressive nature (e.g. congenital loss or incapacity of a limb) require a medical assessment for the first issue of a licence. Periodic review is not usually required if the condition is static.

5.2.4 Short-term musculoskeletal conditions

People with severe musculoskeletal pain (e.g. in the neck or thoracolumbar region) and reduced mobility, including that arising from wearing soft collars or braces, should be advised not to drive for the duration of their treatment. Some loss of neck movement is allowable if the vehicle is fitted with adequate internal and externally mounted mirrors, and provided the driver meets the visual standards for driving and has no cognitive or insight limitations that might impact upon adoption of compensatory strategies.

A person should generally not drive for a period of time after major orthopaedic surgery. This should be determined by the treating doctor and is not a licensing issue. Guidance regarding management of short-term conditions is included in Part A section 4.3 [Temporary conditions](#). A driver assessor opinion may be obtained if there is ongoing limitation of function.

5.3 MEDICAL STANDARDS FOR LICENSING

Requirements for unconditional and conditional licences are outlined in the following table.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person’s fitness to drive.

MEDICAL STANDARDS FOR LICENSING – MUSCULOSKELETAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Musculoskeletal disorders	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the driver’s ability to perform the required driving activities (refer to Figure 9) is inadequate. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor on the benefit of treatments, prostheses or other devices a practical driver assessment if required*; and any modification to the vehicle. <p>* Motor cyclists with a musculoskeletal disability will require a practical driver assessment (refer to Part A section 4.9 Practical driver assessments).</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the driver’s ability to perform the required driving activities (refer to Figure 9) is inadequate. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor on the benefit of treatments, prostheses or other devices the results of a practical driver assessment*; and any modification to the vehicle. <p>* All commercial vehicle drivers with a musculoskeletal disability will require a practical driver assessment (refer to Part A section 4.9 Practical driver assessments).</p>
<p>Note: The evaluation of the effectiveness of prostheses and the specification of appropriate modifications to vehicle controls is a specialist area. It is recommended that the person be referred to an occupational therapist specialising in the area and that the report from that professional be made available to the driver licensing authority (refer to Appendix 9: Specialist driver assessors).</p>		

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010
<http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. VicRoads, OT Australia. Guidelines for Occupational Therapy (OT) Driver Assessors, 2008
www.vicroads.vic.gov.au/NR/rdonlyres/9EF6BA72-E5CA-48B4-8403-692A5B2B0273/0/GuidelinesForOccupationalTherapy_Sept2008.pdf

6. NEUROLOGICAL CONDITIONS

Safe driving is a demanding task that requires a number of intact neurological functions including:

- visuospatial perception
- insight
- judgement
- attention and concentration
- reaction time
- memory
- sensation
- muscle power (refer to section [5 Musculoskeletal conditions](#))
- coordination
- vision (refer to section [10 Vision and eye disorders](#)).

Impairment of any of these capacities may be caused by neurological disorders and thus affect safe driving ability. In addition to these deficits, some neurological conditions produce seizures.

This chapter provides guidance and medical criteria for the following conditions:

- dementia (refer to section [6.1](#))
- seizures and epilepsy (refer to section [6.2](#))
- vestibular disorders (refer to section [6.3](#))
- other neurological conditions including (refer to section [6.4](#)):
 - unruptured intracranial aneurysms and other vascular malformations
 - cerebral palsy
 - head injury
 - neuromuscular conditions
 - Parkinson's disease
 - multiple sclerosis
 - stroke
 - transient ischaemic attacks
 - subarachnoid haemorrhage
 - space-occupying lesions including brain tumours
 - neurodevelopmental disorders.

The focus of this chapter is on long-term or progressive disorders affecting driving ability and licensing status. Some guidance (advisory only) is provided regarding short-term fitness to drive, for example, following a head injury. Refer also to Part A section [4.3 Temporary conditions](#).

Where people experience musculoskeletal, visual or psychological symptoms, the relevant standards should also be considered. Refer to section [5 Musculoskeletal conditions](#), section [7 Psychiatric conditions](#) and section [10 Vision and eye disorders](#).

6.1 DEMENTIA

Refer also to Part A section [4.5 Multiple conditions and age-related change](#).

This section focuses on dementia, being defined for the purposes of this publication, as a progressive deterioration of cognitive function due to degenerative conditions of the central nervous system. Other causes of temporary cognitive impairment or delirium, such as hepatic, renal or respiratory failure, do not usually have an impact on licence status and may be managed in the short term according to general principles (refer to Part A section [4 General considerations for assessing fitness to drive](#)).

6.1.1 Relevance to the driving task

Effects of dementia on driving

Dementia is characterised by significant loss of cognitive abilities such as memory capacity, psychomotor abilities, attention, visuospatial functions, insight, and executive functions. It may arise due to numerous causes including Alzheimer's disease, Huntington's disease, fronto-temporal dementia and vascular dementia. Alzheimer's disease is the most common cause, accounting for 50–70% of cases. It mainly affects people over the age of 70.

Dementia may affect driving ability in a number of ways including:

- errors with navigation, including forgetting routes and getting lost in familiar surroundings
- limited concentration or 'gaps' in attention, such as failing to see or respond to 'stop' signs
- errors in judgement, including misjudging the distance between cars and misjudging the speed of other cars
- confusion when making choices, for example, difficulty choosing between the accelerator or brake pedals in stressful situations
- poor decision making or problem solving, including failure to give way appropriately at intersections and inappropriate stopping in traffic
- poor insight and denial of deficits
- slowed reaction time, including failure to respond in a timely fashion to instructions from passengers
- poor hand–eye coordination.

Evidence of crash risk¹

A diagnosis of dementia is associated with a moderately high risk of collision compared with matched controls. However, the evidence does not suggest that all people with a diagnosis of dementia should have their licences revoked or restricted. Throughout all stages of their condition, drivers require regular monitoring regarding progression of the disease. While for some drivers, the crash risk is minimised because they choose, or are persuaded by their family, to voluntarily cease driving, others with significant cognitive decline and limited insight may require careful management and support in this regard, as discussed below.

6.1.2 General assessment and management guidelines

Assessment

Due to the progressive and irreversible nature of the condition, people with a diagnosis of dementia will eventually be a risk to themselves and others when driving. The level of impairment varies widely – each person will experience a different pattern and timing of impairment as their condition progresses, and some people may not need to stop driving immediately. Individual assessment and regular review are therefore important, although it is difficult to predict the point at which a person will no longer be safe to drive.

A combination of medical assessment (including specialist assessment as required) and off-road and on-road practical assessments appears to give the best indication of driver ability. For further information about practical driver assessments refer to Part A section [4.9 Practical driver assessments](#).

The following points may be of assistance in assessing a person.²

- **Driving history.** Have they been involved in any driving incidents? Have they been referred for assessment by the police or a driver licensing authority?
- **Vision.** Can they see things coming straight at them or from the sides? (refer to section [10 Vision and eye disorders](#))
- **Hearing.** Can they hear the sound of approaching cars, car horns and sirens?
- **Reaction time.** Can they turn, stop or speed up their car quickly?
- **Problem solving.** Do they become upset and confused when more than one thing happens at the same time?
- **Coordination.** Have they become clumsy and started to walk differently because their coordination is affected?
- **Praxis.** Do they have difficulty using their hands and feet when asked to follow motor instructions?
- **Alertness and perception.** Are they aware and understand what is happening around them? Do they experience hallucinations or delusions?

NEUROLOGICAL CONDITIONS

- **Insight.** Are they aware of the effects of their dementia? Is there denial?
- **Other aspects of driving performance.**
 - Can they tell the difference between left and right?
 - Do they become confused on familiar routes?
 - Do they understand the difference between 'stop' and 'go' lights?
 - Are they able to stay in the correct lane?
 - Can they read a road map and follow detour routes?
 - Has their mood changed when driving? Some previously calm drivers may become angry or aggressive.
 - Are they confident when driving?

Because of the lack of insight and variable memory abilities associated with most dementia syndromes, the person may minimise or deny any difficulties with driving. Relatives may be a useful source of information regarding overall coping and driving skills. They may comment about the occurrence of minor crashes, or whether they are happy to be driven by the person with dementia.

Transition from driving

Licence restrictions, such as limitation of driving within a certain distance from a driver's home, may be considered by the driver licensing authority (refer to section 6.1.3). Community mobility assessment and planning with reference to cessation of driving may include family support, accessing local public transport or using community buses, and provision of information regarding taxi and other community transport services available for people with disabilities. A number of resources are available to support the transition. Specific information resources are available through Alzheimer's Australia for drivers with dementia and their family/carers. Contact the National Dementia Helpline on 1800 100 500 or visit www.alzheimers.org.au. Further resources are listed on page 23.

Failure to comply with advice or licence restriction

People may continue to drive despite being advised they are unsafe, and despite their licence being restricted or revoked. This may be because of denial, memory loss or loss of insight. Discussions with the family/carers may be helpful and alternative transportation can be explored. Where the person is judged to be an imminent threat to safety, all states and territories provide indemnity for health professionals and other members of the public who notify the driver licensing authority of at-risk drivers; the driver licensing authority will then take the necessary steps.

6.1.3 Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the table overleaf.

Due to the progressive nature of dementia and the need for frequent review, a person diagnosed with this condition may not hold an unconditional licence for either a private or commercial vehicle. Private vehicle drivers may be considered for a conditional licence subject to medical opinion and practical assessment as required. Commercial vehicle drivers require specialist assessment including a practical driver assessment (refer to Part A section 4.9 Practical driver assessments).

One option available to maintain a driver's independence despite a reduction in capacity is to recommend that an area restriction be placed on the licence. This effectively limits where the person can drive and is most commonly expressed as a kilometre radius restriction based on home address. Drivers should be capable of managing usual driving demands (e.g. negotiating intersections, giving way to pedestrians) as required in their local area. These licence conditions are only suitable for drivers who can reasonably be expected to understand and remember the limits as well as reliably compensate for any functional declines. The ability to respond appropriately and in a timely manner to unexpected occurrences such as roadworks or detours that require problem solving should also be considered. Thus, individuals lacking insight or with significant visual, memory or cognitive-perceptual impairments are usually not suitable candidates for a radius restriction. When advising such a restriction it is also important to remember that:

- a driver may not always appreciate the meaning or extent of a specified number of kilometres from home
- potential hazards such as pedestrians, intersections, roadworks, bad weather and detours can still exist in familiar streets close to home and can be a source of confusion
- a driver licence is a legal document that demonstrates that a driver has satisfied the driver licensing authority that they are fit to use the road system **as it exists** – this means they must be competent to deal with unexpected and hazardous situations, even when limited to driving close to home
- restrictions to specified routes are not practicable and should not be advised.

Drivers with a diagnosis of dementia will generally not meet the commercial standards. In some situations a conditional licence may be considered by the driver licensing authority subject to careful assessment by an appropriate specialist. Commercial vehicle drivers must also be subject to a practical driver assessment (refer to Part A section 4.9 Practical driver assessments).

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – DEMENTIA AND OTHER COGNITIVE IMPAIRMENT		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Dementia	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a diagnosis of dementia. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time or memory and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>The opinion of an appropriate specialist may also be considered.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a diagnosis of dementia. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time or memory and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).

Driver information resources

Alzheimer's Australia

- www.alzheimers.org.au

Australian Capital Territory

- LiveDrive www.livedrive.org.au/

New South Wales

- Roads and Maritime Services older drivers www.rta.nsw.gov.au/licensing/renewingalicence/olderdrivers/
- NRMA older drivers www.mynrma.com.au/cps/rde/xchg/mynrma/hs.xsl/older_drivers_home.htm

Queensland

- Holding your licence after you've turned 75 www.transport.qld.gov.au/Home/Licensing/Driver_licence/Medical_requirements/Older_drivers/
- Royal Automobile Club of Queensland (RACQ) Older Drivers www.racq.com.au/motoring/roads/road_safety/older_road_users

South Australia

- South Australian Seniors Transport www.sa.gov.au/subject/Seniors/Transport

Tasmania

- The Tasmanian Older Drivers Handbook www.transport.tas.gov.au/_data/assets/pdf_file/0004/69448/Older_Driver_Book_LR.pdf

NEUROLOGICAL CONDITIONS

Driver information resources (cont'd)

Victoria

- TAC older drivers www.tacsafety.com.au/jsp/content/NavigationController.do?arealD=2
- VicRoads older driver safety www.vicroads.vic.gov.au/olderdrivers
www.vicroads.vic.gov.au/familyandfriends
www.vicroads.vic.gov.au/Home/Licences/MedicalConditions/Dementia+and+driving.htm
- Arrive Alive – older drivers www.arrivealive.vic.gov.au/strategy/safer_road_users/older_drivers/older_drivers.html
- How safe is your car? – older drivers www.howsafeisyourcar.com.au/Driving-Safely/Older-Drivers/

Western Australia

- Senior driver licence renewals www.transport.wa.gov.au/licensing/yourlicence/15086.asp

Other

- AAMI fact sheet – older drivers www.aami.com.au/Resources/pdf/aami-fact-sheets/AAMI-Facts_OldDriver_08.pdf
- DrugInfo Clearinghouse – safer driving: older drivers www.druginfo.adf.org.au/information-for/information-for-older-drivers

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Australian and New Zealand Society of Geriatric Medicine Position Statement No.11, Driving and dementia, 2009 www.anzsgm.org/documents/PS11DrivingandDementiaapproved6Sep09.pdf
3. RACGP and NSW Health 2003. Care of Patients with Dementia in General Practice. www.racgp.org.au/Content/NavigationMenu/ClinicalResources/RACGPGuidelines/CareofPatientswithDementia/20060413dementiaguidelines.pdf

6.2 SEIZURES AND EPILEPSY

Refer also to section 1 [Blackouts](#), section 2 [Cardiovascular conditions](#) and section 3 [Diabetes mellitus](#).

6.2.1 Relevance to the driving task

Effects of seizures on driving

Seizures vary considerably, some being purely subjective experiences, for example, some focal seizures, but the majority involve some impairment of consciousness (e.g. absence and complex partial seizures) or loss of voluntary control of the limbs (e.g. focal motor and complex partial seizures). Convulsive (tonic-clonic) seizures may be generalised from onset or secondarily generalised with focal onset. Seizures associated with loss of awareness, even if brief or subtle, or loss of motor control have the potential to impair the ability to control a motor vehicle.

Evidence of crash risk¹

Most studies have reported an elevated crash risk among drivers with epilepsy, but the size of the risk varies considerably across the studies. The majority of studies have found that individuals with epilepsy are twice as likely to be involved in a motor vehicle crash compared with the general driving population. More recent studies have found that drivers who do not take anti-epileptic medication as prescribed are at an increased risk for experiencing a crash.

6.2.2 General assessment and management guideline

Epilepsy refers to the tendency to experience recurrent seizures. Not all people who experience a seizure have epilepsy.

Epilepsy is a common disorder with a cumulative incidence of 2% of the population, with 0.5% affected and taking medication at any one time. The majority of cases respond well to treatment, with a terminal remission rate of 80% or more. The majority suffer few seizures in a lifetime and about half will have no further seizures in the first one or two years after starting treatment. Some people with epilepsy may eventually cease medication. For others, surgery may be beneficial.

In general, responsible individuals with well-managed epilepsy (as demonstrated by an appropriate seizure-free period and compliance with treatment) may be considered by the driver licensing authority to be fit to drive a private vehicle. Conditional licences rely on individual responsibility for management of their condition, including compliance with treatment, in conjunction with the support of a health professional and regular review.

Commercial vehicle driving exposes the driver and the public to a relatively greater risk because of the increased time spent at the wheel, as well as the generally greater potential for injury from motor vehicle crashes due to the greater size or weight of commercial vehicles, or large numbers of passengers carried. For this reason, the acceptable risk of a seizure-related crash for commercial driving is much less, and the requirements applied are much more strict. In addition, sleep deprivation is a common provoking factor in epilepsy and may be experienced in long-distance transport driving and amongst drivers doing shift work.

It is good medical practice for any person with initial seizures to be referred to a specialist, where available, for accurate diagnosis of the specific epilepsy syndrome so that appropriate treatment is instituted and all the risks associated with epilepsy, including driving, can be explained.

With regard to licensing, the treating doctor/general practitioner may liaise with the driver licensing authority regarding whether the criteria are met for driving a private vehicle, but only a specialist may do so for a commercial vehicle driver.

Advice to licence holders

All licence holders should be advised of the following general principles for safety when driving.

- The patient must continue to take anti-epileptic medication regularly when and as prescribed.
- The patient should ensure adequate sleep is had and not drive when sleep deprived.
- The patient should avoid circumstances, or the use of substances (e.g. alcohol), that are known to increase the risk of seizures.

It is good medical practice for any person with epilepsy to be reviewed periodically. Patients who are licence holders should also be monitored regarding their response to treatment and compliance with the general advice for safety when driving. Drivers of private vehicles who hold a conditional licence should be reviewed at least annually by the treating doctor. Commercial vehicle drivers should be reviewed at least annually by a specialist regarding any conditional licence that has been issued.

Concurrent conditions

Where epilepsy is associated with other impairments or conditions, the relevant sections covering those disorders should also be consulted.

NEUROLOGICAL CONDITIONS

Other conditions with risk of seizure

Seizures can occur in association with many brain disorders. Some of these disorders may also impair safe driving because of an associated neurological deficit. Both the occurrence of seizures, as well as the effect of any neurological deficit, must be taken into account when determining fitness to drive. (Refer to section 6.4 Other neurological and neurodevelopmental conditions and Part A section 4.5 Multiple conditions and age-related change).

Loss of consciousness due to other causes

In cases where it is not possible to be certain that an episode of loss of consciousness is due to a seizure or some other cause, refer to section 1.2.2 Blackouts of underdetermined mechanism.

6.2.3 Medical standards for licensing

Given the considerable variation in seizures and their potential impact on safe driving, a hierarchy of standards has been developed that provides a logical and fair basis for decision making regarding licensing. This hierarchy comprises:

- a default standard, applicable to all cases of seizure, unless reductions are allowed (refer below and to the table on page 79)
- reductions for specific types of epilepsy or specific circumstances, including an allowance for exceptional circumstances upon the advice of a specialist in epilepsy (refer below and to the table on page 79).

In addition, advice is provided on a number of difficult management issues relating to safe driving for people with seizures and epilepsy (refer below and to the table on page 79).

The default standard (all cases)

The 'default standard' is the standard that applies to all drivers who have had a seizure unless their situation matches one of a number of defined situations listed in the table and described below. These situations are associated with a lower risk of a seizure-related crash and therefore driving may be resumed after a shorter period of seizure freedom than required under the default standard. However, the need for adherence to medical advice and at least annual review still apply. If a seizure has caused a crash within the preceding 12 months, the required period of seizure freedom may not be reduced below that required under the default standard. If antiepileptic medication is to be withdrawn, the person should not drive (refer to table for details).

Variations to the default standard

There are several situations in which a variation from the default standard may be considered by the driver licensing authority to allow an earlier return to driving. These are listed below and discussed on subsequent pages:

- seizures in childhood
- first seizure
- epilepsy treated for the first time
- acute symptomatic seizures
- 'safe' seizures
- seizures only in sleep
- seizures in a person previously well controlled
- exceptional circumstances.

In most cases, exceptions to the default standard will be considered only for private vehicle drivers. A reduction in restrictions for commercial vehicle drivers will generally only be granted after consideration of information provided by a specialist with expertise in epilepsy.

If a person has experienced a crash as a result of a seizure, the default non-driving seizure-free period applies even if the situation matches one of those above.

In addition to the reduction for particular circumstances or seizure types, there is also an allowance for 'exceptional cases' in which a conditional licence may be considered for private or commercial vehicle drivers on the recommendation of a medical specialist with specific expertise in epilepsy. This enables individualisation of licensing for cases where the person does not meet the standard but may be safe to drive.

Licensing of drivers with a history of childhood febrile seizures or benign epilepsy syndrome of childhood

In some specific childhood epilepsy syndromes, seizures usually cease before the minimum age of driving. The driver may hold an unconditional licence if no seizures have occurred after the age of 11 years. If a seizure has occurred after 11 years of age, the default standard applies unless the situation matches one of those in this section (Variations to the default standard).

- **The first seizure**

The occurrence of a first seizure warrants medical specialist assessment, where available. Approximately half of all people experiencing their first seizure will never have another seizure, while half will have further seizures (i.e. epilepsy). The risk of recurrence falls with time. Driving may be resumed after sufficient time has passed without further seizures (with or without medication) to allow the risk to reach an acceptably low level (refer to table page 79). If a second seizure occurs (except on the same day as the first), the risk of recurrence is much higher. The standard for *Epilepsy treated for the first time* will then apply (refer below).

- **Epilepsy treated for the first time**

The risk of recurrent seizures in people starting treatment for epilepsy is sufficiently low to allow driving to resume earlier than required under the default standard. For the purpose of these standards, epilepsy treated for the first time means that treatment was started for the first time within the preceding 18 months.

When treatment with an anti-epileptic drug is started in a previously untreated person, sufficient time should pass to establish that the drug is effective before driving is recommenced. However, effectiveness cannot be established until the person reaches an appropriate dose. For example, if a drug is being gradually introduced over three weeks and a seizure occurs in the second week, it would be premature to declare the drug ineffective. The standard allows seizures to occur within the first six months after starting treatment without lengthening the required period of seizure freedom. However, if seizures occur more than six months after starting therapy, a longer seizure-free period is required (refer to table for details). For commercial drivers, the default standard applies.

For example, if a patient has a seizure three months after starting therapy, they may be fit to drive six months after the most recent seizure (nine months after starting therapy). However, if a person experiences a seizure eight months after starting therapy, the default standard applies and they may not be fit to drive until 12 months after the most recent seizure.

- **Acute symptomatic seizures**

Acute symptomatic seizures are caused by a transient brain disorder or metabolic disturbance (e.g. encephalitis, hyponatraemia, hypoglycaemia, head injury or drug or alcohol withdrawal) in patients without previous epilepsy. Acute symptomatic seizures can be followed by further seizures weeks, months or years after resolution of the transient brain disorder. This may occur because of permanent changes to the brain caused by the process underlying the acute symptomatic seizures (e.g. seizures may return years after a resolved episode of encephalitis) or because the transient brain disorder has recurred (e.g. benzodiazepine withdrawal).

People who have experienced a seizure only during and because of a transient brain disorder or metabolic disturbance should not drive for a sufficient period to allow the risk of recurrence to fall to an acceptably low level (refer to table for details). Return to driving for commercial vehicle drivers requires input from a specialist in epilepsy.

If seizures occur after the causative acute illness has resolved, whether or not due to a second transient brain disorder or metabolic disturbance, the acute symptomatic seizures standard no longer applies. For example, if a person has a seizure during an episode of encephalitis and then, after recovery from the encephalitis, has another seizure and begins treatment, the standard for epilepsy treated for the first time applies. Similarly, if a person experiences seizures during two separate episodes of benzodiazepine withdrawal, the default standard applies.

- **'Safe' seizures (including prolonged aura)**

Some seizures do not impair consciousness or the ability to control a motor vehicle, however, this must be well established without exceptions and corroborated by reliable witnesses or video-EEG recording because people may believe their consciousness is unimpaired when it is not. For example, some 'auras' are associated with impaired consciousness that the person does not perceive. For private vehicle drivers, where seizures occur only at a particular time of day (e.g. in the first hour after waking) a restricted licence, which limits driving to certain hours or circumstances, may be acceptable. This applies only to private vehicle drivers.

Seizures may begin with a subjective sensation (the 'aura') that precedes impairment of consciousness. If this lasts long enough, the driver may have time to stop the vehicle. However, this can be relied upon only when this pattern has been well established without exceptions and corroborated by witnesses or video-EEG monitoring. Furthermore, it may be impossible to stop immediately and safely because of traffic conditions and for these reasons, such seizures can be considered safe only in exceptional circumstances.

- **Sleep-only seizures**

Some seizures occur only during sleep and hence are not a hazard to driving. In people who have never had a seizure while awake but who have an established pattern of seizures exclusively during sleep, the risk of subsequent seizures while awake is sufficiently low to allow private driving, despite continuing seizures while asleep. In people with an established pattern of sleep-only seizures but a history of previous seizures while awake, the risk of further seizures while awake is higher. Therefore, a longer period of sleep-only seizures is required before driving by this group than in those who have never had a seizure while awake. This applies only to private vehicle drivers.

NEUROLOGICAL CONDITIONS

- **Seizure in a person whose epilepsy has been previously ‘well controlled’**

Where a single seizure occurs after a long period (defined in these standards as at least 12 months) without seizures, the risk of further seizures is sufficiently low that driving can be resumed after a shorter period than when the epilepsy has not been as well controlled. The duration of the non-driving seizure-free period depends on whether or not a provoking factor was identified and can be reliably avoided (refer below). This applies only to private vehicle drivers.

In people with epilepsy, their seizures are often provoked by factors such as sleep deprivation, missed doses of anti-epileptic medication, over-the-counter medications, alcohol or acute illnesses. If the provoking factor is avoided, the risk of subsequent seizures may be sufficiently low to allow private driving to resume after a shorter seizure-free period than following an unprovoked seizure. However, this applies only if the epilepsy has been well controlled until the provoked seizure (refer to previous point). Some provocative factors, such as sleep deprivation, unless severe, cannot be reliably avoided. Refer also *Medication noncompliance*.

- **Exceptional cases**

Where a medical specialist experienced in the management of epilepsy considers that a person with seizures or epilepsy does not meet the standards for a conditional licence but nonetheless may be safe to drive, a conditional licence may be considered if the driver licensing authority, after considering clinical information provided by the treating medical specialist, considers that the risk of a crash caused by a seizure is acceptably low.

Other factors that may influence licensing status

A number of other factors may influence the management of epilepsy with regards to driving and licensing. These include:

- epilepsy treated by surgery
- medication noncompliance
- cessation of anti-epileptic medication
- seizure causing a crash
- resumption of an unconditional licence.

These issues are discussed below and criteria are outlined in the table on page 79.

- **Epilepsy treated by surgery**

Resection of epileptogenic brain tissue may eliminate seizures completely, allowing safe driving after a suitable seizure-free period. The vision standard may also apply if there is a residual visual field defect. If medication is withdrawn, refer to *Withdrawal or dose reduction of one or more anti-epileptic medications*.

- **Medication noncompliance**

Compliance with medical advice regarding medication intake is a requirement for conditional licensing. Where noncompliance with medication is suspected by the treating doctor, the doctor may recommend to the driver licensing authority that the licence be granted conditional upon periodic drug-level monitoring. Where a person without a history of noncompliance with medication experiences a seizure because of a missed dose and there were no seizures in the 12 months leading up to that seizure, the situation can be considered a provoked seizure (refer to standard for *Seizure in a person whose epilepsy has been previously well controlled*).

- **Withdrawal or dose reduction of one or more anti-epileptic medications**

In people who have had no seizures while taking anti-epileptic medication over a suitable period, the specialist may attempt a withdrawal of all anti-epileptic medication, a reduction in the number of medications or a reduction in dose. The medication may also be changed because of side-effects or potential side-effects (such as teratogenicity). The person should not drive for the full period of withdrawal or dose change and for 3 months thereafter. However, if the dose is being reduced only because of current side-effects, driving may continue. The person will already be on a conditional licence, thus notification of the driver licensing authority is not required.

For commercial vehicle drivers, if anti-epileptic medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence. This also applies to a reduction in dose of anti-epileptic medication except if the dose reduction is due only to the presence of side-effects (refer to page 83).

- **Seizure causing a crash**

Not all seizures carry the same risk of causing a crash. People who have been involved in a crash as a result of a seizure are likely to have a higher crash risk. If a person who has experienced a crash as a result of a seizure, the default seizure-free non-driving period applies, even if they fall into one of the categories that allows a reduction.

- **Resumption of an unconditional licence**

Where a person has had no seizures for at least five years and has taken no antiepileptic medication for at least the preceding 12 months, the driver licensing authority may consider granting an unconditional licence. This does not apply to commercial vehicle drivers.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY		
<p>Step 1. Read 'All cases'. This applies to all people with seizures.</p> <p>Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.</p>		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
All cases: default standard		
<p>All cases (default standard)</p> <p>Applies to all people who have experienced a seizure.</p> <p>Exceptions may be considered only if the situation matches one of those listed below.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has experienced a seizure. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there have been no seizures for at least 12 months; and • the person follows medical advice, including adherence to medication if prescribed. <p>Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the remainder of this table.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has experienced a seizure. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by a specialist in epilepsy as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there have been no seizures for at least 10 years; and • the EEG shows no epileptiform activity; and • the person follows medical advice, including adherence to medication if prescribed. <p>Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the remainder of this table.</p>
Possible reductions in the non-driving seizure-free periods for a conditional licence		
<p>History of a benign seizure or epilepsy syndrome usually limited to childhood (e.g. febrile seizures, benign focal epilepsy, childhood absence epilepsy)</p>	<p>A history of a benign seizure or epilepsy syndrome usually limited to childhood does not disqualify the person from holding an unconditional licence, as long as there have been no seizures after 11 years of age.</p> <p>If a seizure has occurred after 11 years of age, the default standard (refer above) applies unless the situation matches one of those listed below.</p>	<p>A history of a benign seizure or epilepsy syndrome usually limited to childhood does not disqualify the person from holding an unconditional licence, as long as there have been no seizures after 11 years of age.</p> <p>If a seizure has occurred after 11 years of age, the default standard (refer above) applies unless the situation matches one of those listed below.</p>

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

Step 1. Read 'All cases'. This applies to all people with seizures.

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)		
<p>First seizure</p> <p>Note: Two or more seizures in a 24-hour period are considered a single seizure.</p>	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria is met:</p> <ul style="list-style-type: none"> • there have been no further seizures (with or without medication) for at least six months. 	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by a specialist in epilepsy as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there have been no seizures for at least five years (with or without medication); and • the EEG shows no epileptiform activity.
<p>Epilepsy treated for the first time</p> <p>This applies when anti-epileptic treatment has been started for the first time within the preceding 18 months.</p>	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the person has been treated for at least six months; and • there have been no seizures in the preceding six months; and • if any seizures occurred after the start of treatment, they happened only in the first six months after starting treatment and not in the last six months; and • the person follows medical advice, including adherence to medication. 	<p>There is no reduction. The default standard applies.</p>
<p>Acute symptomatic seizures</p> <p>Seizures occurring only during a temporary brain disorder or metabolic disturbance in a person without previous seizures. This includes head injuries and withdrawal from drugs or alcohol. This is not the same as provoked seizures in a person with epilepsy.</p>	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criterion is met:</p> <ul style="list-style-type: none"> • there have been no further seizures for at least six months. <p>If there have been two or more separate transient disorders causing acute symptomatic seizures, the default standard applies.</p>	<p>In exceptional circumstances, a conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by a specialist in epilepsy as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there have been no further seizures for at least 12 months; and • the EEG shows no epileptiform activity. <p>If there have been two or more separate transient disorders causing acute symptomatic seizures, the default standard applies.</p>

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

Step 1. Read 'All cases'. This applies to all people with seizures.

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
-----------	---	---

Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)

<p>'Safe' seizures</p> <p>These are defined as seizures that do not impair driving ability (which requires consciousness and ability to control the vehicle at all times). Consciousness must be verified by witnesses or video-EEG.</p>	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • 'safe' seizures have been present for at least two years; and • there have been no seizures of other type for at least two years; and • the person follows medical advice, including adherence to medication if prescribed. <p>If the above criteria are not met, the default standard applies.</p>	<p>There is no reduction. The default standard applies.</p>
<p>Sleep-only seizures: seizures occurring only during sleep</p>	<p>A conditional licence may be considered by the driver licensing authority, despite continuing seizures only during sleep and subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • there have been no previous seizures while awake; and • the first sleep-only seizure was at least 12 months ago; and • the person follows medical advice, including adherence to medication if prescribed. <p>OR</p> <ul style="list-style-type: none"> • there have been previous seizures while awake but not in the preceding two years; and • sleep-only seizures have been occurring for at least two years; and • the person follows medical advice, including adherence to medication if prescribed. <p>If the above criteria are not met, the default standard applies.</p>	<p>There is no reduction. The default standard applies.</p>

NEUROLOGICAL CONDITIONS

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

Step 1. Read 'All cases'. This applies to all people with seizures.

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom.

Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)		
<p>Seizure in a person whose epilepsy was previously well controlled</p> <p>'Well controlled' is defined as: There were no seizures during the 12 months leading up to the last seizure.</p>	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the seizure was caused by an identified provoking factor; and • the provoking factor can be reliably avoided; and • the provoking factor has not caused previous seizures; and • there have been no seizures for at least four weeks; and • the person follows medical advice, including adherence to medication (periodic serum drug level measurements may be required) <p>OR</p> <ul style="list-style-type: none"> • no cause for the seizure was identified; and • there have been no seizures for at least three months; and • the person follows medical advice, including adherence to medication. <p>If the person has experienced one or more seizures during the 12 months leading up to the last seizure, there is no reduction and the default standard applies.</p>	<p>There is no reduction. The default standard applies.</p>
<p>Exceptional cases</p>	<p>Where a medical specialist experienced in the management of epilepsy considers that a person with seizures or epilepsy does not meet the standards above for a conditional licence but may be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least annual review: (continued overleaf)</p>	<p>Where a specialist experienced in the management of epilepsy considers that a person with seizures or epilepsy who does not meet the standards for a conditional licence may be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least annual review: (continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

Step 1. Read 'All cases'. This applies to all people with seizures.

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)		
Exceptional cases (cont'd)	<ul style="list-style-type: none"> if the driver licensing authority, after considering information provided by a specialist experienced in the management of epilepsy, considers that the risk of a crash caused by a seizure is acceptably low; and the person follows medical advice, including adherence to medication if prescribed. 	<ul style="list-style-type: none"> if the driver licensing authority, after considering information provided by a specialist experienced in the management of epilepsy, considers that the risk of a crash caused by a seizure is acceptably low; and the person follows medical advice, including adherence to medication if prescribed.
Other factors that may influence licence status		
Epilepsy treated by surgery	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there have been no seizures for at least 12 months following surgery. <p>The vision standard may also apply if there is a visual field defect.</p> <p>If medication is withdrawn, refer to <i>Planned withdrawal of all anti-epileptic medication</i>.</p>	<p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account information provided by a specialist in epilepsy as to whether the following criteria are met:</p> <ul style="list-style-type: none"> there have been no seizures for at least 10 years; and the EEG shows no epileptiform activity; and the person follows medical advice with respect to medication adherence. <p>The vision standard may also apply if there is a visual field defect.</p> <p>If any anti-epileptic medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence.</p>
Medication noncompliance	Refer to text, page 78	Refer to text, page 78
Planned withdrawal of one or more anti-epileptic medications in a person who satisfies the standard to hold a conditional licence	<p>The person should not drive:</p> <ul style="list-style-type: none"> during the period in which the dose is being tapered; and for three months after the last dose. <p>(continued overleaf)</p>	<p>If any anti-epileptic medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence.</p> <p>(continued overleaf)</p>

NEUROLOGICAL CONDITIONS

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

Step 1. Read 'All cases'. This applies to all people with seizures.

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom.

Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other factors that may influence licence status (cont'd)		
Planned withdrawal of one or more anti-epileptic medications in a person who satisfies the standard to hold a conditional licence (cont'd)	<p>If seizures recur, the driver licensing authority may allow the person to resume driving on a conditional licence subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the previously effective medication regime is resumed; and there have been no seizures for four weeks after resuming the medication regime; and the person follows medical advice, including adherence to medication. <p>If seizures do not recur, the person may become eligible for an unconditional licence (refer to <i>Resumption of unconditional licence</i>).</p>	
Reduction in dosage of anti-epileptic medication in a person who satisfies the standard to hold a conditional licence	<p>The person should not drive:</p> <ul style="list-style-type: none"> during the period in which the dose reduction is being made; and for 3 months after completion of the dose reduction. <p>Driving may continue</p> <ul style="list-style-type: none"> if the dose reduction is due only to the presence of side-effects. <p>If seizures recur, the driver licensing authority may allow the person to resume driving on a conditional licence subject to at least annual review, taking into account information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the previously effective medication dose is resumed; and there have been no seizures for 4 weeks after resuming the previously effective dose; and the person follows medical advice, including adherence to medication. 	<p>If the dose of antiepileptic medication is to be reduced, the person will no longer meet the criteria to hold a conditional licence except:</p> <ul style="list-style-type: none"> if the dose reduction is due only to the presence of side-effects.

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

Step 1. Read 'All cases'. This applies to all people with seizures.

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom.

Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other factors that may influence licence status (cont'd)		
Seizure causing a crash	If a person has experienced a crash as a result of a seizure, the default seizure-free non-driving period applies, even if they fall into one of the seizure categories that allow a reduction.	If a person has experienced a crash as a result of a seizure, the default seizure-free non-driving period applies, even if they fall into one of the seizure categories that allow a reduction.
Resumption of non-conditional licence	The driver licensing authority may consider granting an unconditional licence , taking into account information provided by the treating doctor as to whether the following criteria are met: <ul style="list-style-type: none"> the person has had no seizures for at least five years; and has taken no antiepileptic medication for at least the preceding 12 months. 	Refer to text, page 78 Resumption of an unconditional commercial licence will not be considered.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010
<http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Fisher RS, Parsonage M, Beaussart M, Bladin P, Masland R, Sonnen AEH, Rémillard G. Epilepsy and driving: an international perspective. *Epilepsia*, 1994; 35: 675–684.
3. Hansotia P and Broste SK. The effects of epilepsy or diabetes mellitus on the risk of automobile accidents. *N Engl J Med*, 1991; 324: 22–26.
4. Taylor J and Chadwick D. Risk of accidents in drivers with epilepsy. *J Neurol Neurosurg Psychiatr*, 1996; 60: 621–627.
5. Gastaut H and Zifkin BG. The risk of automobile accidents with seizures occurring while driving. *Neurology*, 1987; 37: 1613–1616.
6. Black AB. Epilepsy and driving: The Perspective of an Australian Neurologist. *Med Law*, 2001; 20: 553–568, 2001.
7. Berger JT, Rosner F, Kark P, Bennett AJ. Reporting by physicians of impaired drivers and potentially impaired drivers. *J Gen Int Med*, 2000; 15: 667–672.
8. Lawden M. Epilepsy surgery, visual fields, and driving. *Journal of Neurology, Neurosurgery and Psychiatry*, 2000; 68(1), 6.
9. Somerville ER, Black AB, Dunne JW. Driving to distraction-certification of fitness to drive with epilepsy. *Med J Aust*. 2010 Mar 15; 192(6): 342-4.
10. Epilepsy and Driving in Europe. A report of the Second European Working Group on Epilepsy and Driving. 2005
http://ec.europa.eu/transport/road_safety/behavior/doc/epilepsy_and_driving_in_europe_final_report_v2_en.pdf

6.3 VESTIBULAR DISORDERS

Refer also to section 4 [Hearing](#).

6.3.1 Relevance to the driving task

Effects of vestibular disorders on driving

Driving ability is dependent on the normal functioning of the vestibular mechanism to sense movement and position and may be impaired by defects in balance. Vertigo can occur suddenly and with sufficient severity to make safe driving of any type of vehicle impossible. It may be accompanied by oscillopsia (the illusion that the environment is moving), which compounds the disability in regard to driving.

Evidence of crash risk¹

There have been few studies of the risk of crash and vestibular disorders.

6.3.2 General assessment and management guidelines

While vertigo can occur suddenly (e.g. in stroke), most disorders that produce recurrent vertigo rarely do so suddenly.

Benign paroxysmal positional vertigo (BPPV)

Generally people with BPPV will not have symptoms in the upright position such as when driving. In this case they meet the requirements for unconditional private vehicle licensing. People with BPPV who have symptoms in the upright position should not drive while symptoms persist in the upright position.

Ménière's disease

Ménière's disease often results in recurrent vertigo, despite treatment. The natural history is of progression in the affected ear associated with increasing hearing loss until, in the extreme, total loss of vestibular function and partial loss of cochlear function occurring in the affected ear. The attacks are often heralded by a sense of fullness in the affected ear that may enable the driver to stop the vehicle safely.

6.3.3 Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the table overleaf.

Generally, those who suffer from recurrent unheralded attacks of vertigo should not drive. The opinion of a neurologist or otorhinolaryngologist may be sought.

NEUROLOGICAL CONDITIONS

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – VESTIBULAR DISORDERS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Benign paroxysmal positional vertigo (BPPV)	<p>Generally people with BPPV will not have symptoms in the upright position such as when driving. In such cases there is no driving or licence restriction.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person experiences recurrent sudden and severe episodes of vertigo in the upright posture. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criterion is met:</p> <ul style="list-style-type: none"> the person has been free of attacks for at least three months. 	<p>Generally people with BPPV will not have symptoms in the upright position such as when driving. In such cases there is no driving or licence restriction.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person experiences recurrent sudden and severe episodes of vertigo in the upright posture. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating neurologist/ENT specialist as to whether the following criterion is met:</p> <ul style="list-style-type: none"> the person has been free of attacks for at least six months.
Ménière's disease	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has Ménière's disease producing vertigo within the preceding two years. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there is sufficient presence of warning symptoms of an attack to enable the driver to stop safely. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has Ménière's disease. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating neurologist/ENT specialist as to whether the following criterion is met:</p> <ul style="list-style-type: none"> there is sufficient presence of warning symptoms of an attack to enable the driver to stop safely.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Mckieman D, Jonathon D, Driving and Vertigo, *Clinical Otolaryngology*, 2001; 26, 1–2.

6.4 OTHER NEUROLOGICAL AND NEURODEVELOPMENTAL CONDITIONS

6.4.1 General assessment and management guidelines

The person with a neurological condition should be examined to determine the impact on the functions required for safe driving as listed below. If the health professional is concerned about a person's ability to drive safely, the person may be referred for a driver assessment or for appropriate allied health assessment (refer to [Appendix 9: Specialist driver assessors](#)).

Checklist for neurological disorders

If the answer is YES to any of the following questions, the person may be unfit to drive and warrants further assessment.

1. Are there significant impairments of any of the following?

- Visuospatial perception
- Insight
- Judgement
- Attention and concentration
- Reaction time
- Memory
- Sensation
- Muscle power
- Coordination

2. Are the visual fields abnormal? (refer to section 10 Vision and eye disorders)

3. Have there been one or more seizures? (refer to section 6.2 Seizures and epilepsy)

Some neurological conditions are progressive, while others are static. In the case of static conditions in those who are fit to drive, the requirement for periodic review may be waived.

Aneurysms (unruptured intracranial aneurysms and other vascular malformations)

The risk of sudden severe haemorrhage from most unruptured intracranial aneurysms and vascular malformations is sufficiently low to allow unrestricted driving for private vehicle drivers. However, the person should not drive if they are at high risk of sudden symptomatic haemorrhage (e.g. giant (> 15 mm) aneurysms). Cavemomas frequently produce small asymptomatic haemorrhages that do not impair driving ability. However, if they produce a neurological deficit, the person should be assessed to determine if any of the functions listed above are impaired. Commercial vehicle drivers should be individually assessed for suitability for a conditional licence.

If treated surgically, the advice regarding intracranial surgery applies (refer below). If the person has had a seizure, the seizures and epilepsy standards also apply (refer to section 6.2 Seizures and epilepsy).

Cerebral palsy

Cerebral palsy may impair driving ability because of difficulty with motor control or if it is associated with intellectual impairment. A practical driver assessment may be required (refer to Part A section 4.9 Practical driver assessments). As the disorder is usually static, periodic review is not normally required.

Head Injury

A head injury will only affect driver licensing if it results in chronic impairment or seizures. However, any person who has had a traumatic injury causing loss of consciousness should not drive for a minimum of 24 hours, and the effects on functions listed above should be monitored. This is advisory and not a licensing matter.

Minor head injuries involving a loss of consciousness of less than one minute with no complications do not usually result in any long-term impairment. Similarly, immediate seizures that occur within 24 hours of a head injury are not considered to be epilepsy but part of the acute process.

More significant head injuries may impair any of the neurological functions listed in the checklist above and can impair long-term driving ability. There may be focal neurological injury affecting motor or sensory tracts as well as the cranial nerves. Also personality or behavioural changes may affect judgement and tolerance and be associated with a psychiatric disorder such as depression or posttraumatic stress disorder (PTSD). Clinical, neuropsychological or practical driver assessments may be helpful in determining fitness to drive (refer to Part A section 4.9 Practical driver assessments). Comorbidities such as drug or alcohol misuse and musculoskeletal injuries may also need to be considered (refer to section 9 Substance misuse and section 5 Musculoskeletal conditions).

Neurological recovery from a traumatic brain injury may occur over a long period and some people who are initially unfit may recover sufficiently over many months such that driving can eventually be resumed.

Intellectual impairment (IQ less than 70)

The severity of intellectual impairment should be judged individually and will rely on appropriate professional advice, including neurological and neuropsychological advice. The driver licensing authority will require an assessment by a driver assessor before considering issue of a licence or conditional licence. If the degree of impairment is static, periodic review is not usually required. People with an IQ less than 70 are not eligible for a commercial vehicle licence.

Intracranial surgery (advisory only; non-driving periods may be varied by the neurosurgeon)

Non-driving periods are advised to allow for the risk of seizures occurring after certain types of intracranial surgery. Following supratentorial surgery or surgery requiring retraction of the cerebral hemispheres, the person generally should not drive a private vehicle for six months and a commercial vehicle for 12 months. Notification to the driver licensing authority is not required. There is no specific restriction after infratentorial or trans-sphenoidal surgery.

If one or more seizures occur, the standards for seizures and epilepsy apply (refer to section [6.2 Seizures and epilepsy](#)), and the driver licensing authority should be notified by the driver. Similarly, if there is long-term impairment of any of the functions listed on page 90, fitness to drive will need to be assessed (refer to section [6.4 Other neurological and neurodevelopmental conditions](#)).

Multiple sclerosis

Multiple sclerosis may produce a wide range of neurological deficits that may be temporary or permanent. Possible deficits that may impair safe driving include all of those listed on page 90. Vehicle modifications may be made to assist with some of these impairments; the advice of an occupational therapist may be helpful in this regard (refer to Part A section [4.9 Practical driver assessments](#)).

Neuromuscular disorders

Neuromuscular disorders include diseases of the peripheral nerves, muscles or neuromuscular junction. Peripheral neuropathy may impair driving due to difficulties with sensation (particularly proprioception) or from severe weakness. Disorders of the muscles or neuromuscular junction may also interfere with the ability to control a vehicle. A practical driver assessment may be required (refer to Part A section [4.9 Practical driver assessments](#)).

Parkinson's disease

Parkinson's disease is a common, progressive disease that may affect driving in advanced stages² due to its motor manifestations (bradykinesia and rigidity) or cognitive impairments (deficits in executive function and memory and visuospatial difficulties).³ There may also be disturbances of sleep with episodes of sleepiness when driving. When assessing the response to treatment, the response over the whole dose cycle should be taken into account (for example in patients with motor fluctuations, it would not be appropriate to assess fitness to drive only on the basis of the best "on" response). Most patients with severe fluctuations will be unfit to drive. A practical driver assessment may be required (refer to Part A section [4.9 Practical driver assessments](#)).

Stroke (cerebral infarction or intracerebral haemorrhage)

Stroke may impair driving ability either because of the long-term neurological deficit it produces or because of a recurrent stroke or transient ischaemic attack (TIA) at the wheel of a vehicle (refer below). Stroke and TIA rarely produce loss of consciousness. It is very uncommon for undiagnosed strokes or TIA to result in motor vehicle crashes. When they do, it is usually due to an unrecognised visual field deficit. The risk of recurrent stroke is probably highest in the first month after the initial stroke but is still sufficiently low (about 10% in the first year) that it does not on its own require suspension of driving. However, fatigue and impairments in concentration and attention are common after stroke (even in those with no persisting neurological deficits) and may impair the ability to perform the driving task, particularly for commercial vehicle drivers. For this reason, there should be a non-driving period after stroke, even in those with no detectable persisting neurological deficit. For those with a persistent neurological deficit, subsequent driving fitness will depend on the extent of impairment of the functions listed in the checklist on page 90. A practical driver assessment may be required (refer to Part A section [4.9 Practical driver assessments](#)). The vision standard may also apply (refer to section [10 Vision and eye disorders](#)). If the person has had a seizure, the seizures and epilepsy standards also apply (refer to section [6.2 Seizures and epilepsy](#)). People who have made a full neurological recovery do not require a conditional licence.

Transient ischaemic attack (TIA) (advisory)

TIA's can be single or recurrent and may be followed by stroke. They may impair driving ability if they occur at the wheel of a motor vehicle. However, as TIA rarely produces loss of consciousness, it is an extremely uncommon cause of crashes. The risk of a further TIA or stroke is about 15% in the first three months and about half of that risk occurs in the first week. In view of the low risk of

NEUROLOGICAL CONDITIONS

TIA or stroke affecting driving, private vehicle drivers should not drive for two weeks and commercial vehicle drivers should not drive for four weeks after a TIA. A conditional licence is not required because there is no long-term impairment (refer to Part A section [4.3 Temporary conditions](#)).

Subarachnoid haemorrhage

Driving should be restricted if the person has had a subarachnoid haemorrhage. A conditional licence may be considered after a minimum three-month non-driving period for private vehicle drivers and after at least six months for commercial vehicle drivers, taking into account the presence of neurological disabilities as described on page 90. The vision standard may also apply (refer to section [10 Vision and eye disorders](#)). If the person has had one or more seizures, the seizures and epilepsy standards also apply (refer to section [6.2 Seizures and epilepsy](#)). If a craniotomy has been performed, the advice for intracranial surgery also applies (refer to page 94). A practical driver assessment may be considered (refer to Part A section [4.9 Practical driver assessments](#)).

Space-occupying lesions including brain tumours

Brain tumours and other space-occupying lesions (e.g. abscesses, chronic subdural haematomas, cysticercosis) may cause diverse effects depending on their location and type. They may impair any of the neurological functions listed on page 90. If the person has had one or more seizures, the Seizures and epilepsy standards also apply (refer to section [6.2 Seizures and epilepsy](#)). If a craniotomy has been performed, the advice regarding intracranial surgery also applies (refer to page 93).

6.4.2 Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the table on page 93 (in alphabetical order) including standards for:

- aneurysms (unruptured intracranial aneurysms and other vascular malformations)
- cerebral palsy
- head injury
- intellectual impairments
- intracranial surgery
- multiple sclerosis
- neuromuscular conditions
- Parkinson's disease
- stroke
- transient ischaemic attacks
- space-occupying lesions including brain tumours
- subarachnoid haemorrhage.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person’s fitness to drive.

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Aneurysms (unruptured intracranial aneurysms) and other vascular malformations of the brain (refer also to subarachnoid haemorrhage, page 97)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an unruptured intracranial aneurysm or other vascular malformation at high risk of major symptomatic haemorrhage. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by an appropriate specialist regarding:</p> <ul style="list-style-type: none"> the response to treatment. <p>If treated surgically, the intracranial surgery advice applies (page 94).</p> <p>If the person has had a seizure, the seizure and epilepsy standards apply (refer to section 6.2 Seizures and epilepsy)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an unruptured intracranial aneurysm or other vascular malformation. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by an appropriate specialist regarding:</p> <ul style="list-style-type: none"> the risk of major symptomatic haemorrhage; and the response to treatment. <p>If treated surgically, the intracranial surgery advice applies (page 94).</p> <p>If the person has had a seizure, the seizure and epilepsy standards apply (refer to section 6.2 Seizures and epilepsy).</p>
<p>Cerebral palsy (refer also to neuromuscular, page 95 and/or intellectual disability, page 94)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has cerebral palsy producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modifications. <p>Periodic review is not required if the condition is static.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has cerebral palsy producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modifications. <p>Periodic review is not required if the condition is static.</p>

NEUROLOGICAL CONDITIONS

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Head injury (refer also to intracranial surgery, below)	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had head injury producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability and the presence of other disabilities that may impair driving as per this publication the results of neuropsychological testing if indicated the results of a practical driver assessment if required. <p>Periodic review is not required if the condition is static.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had head injury producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability and the presence of other disabilities that may impair driving as per this publication the results of neuropsychological testing if indicated the results of a practical driver assessment if required. <p>Periodic review is not required if the condition is static.</p>
Intellectual disability	<p>A practical driver assessment is required for all people with IQ less than 70. Refer to Part A section 4.9 Practical driver assessments.</p> <p>Periodic review is not usually required if the condition is static.</p>	<p>People with an IQ less than 70 are not eligible for a commercial vehicle licence.</p> <p>For those with milder degrees of intellectual impairment, a practical driver assessment should be considered.</p> <p>Periodic review is not usually required if the condition is static.</p>
Intracranial surgery (advisory only)	<p>A person should not drive for six months following supratentorial surgery or retraction of the cerebral hemispheres.</p> <p>If there are seizures or long-term neurological deficits, refer to section 6.2 Seizures and epilepsy or page 98.</p>	<p>A person should not drive for 12 months following supratentorial surgery or retraction of the cerebral hemispheres.</p> <p>If there are seizures or long-term neurological deficits, refer to section 6.2 Seizures and epilepsy or page 98.</p>

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Multiple sclerosis	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has multiple sclerosis and significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has multiple sclerosis. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification.
Neuromuscular conditions (peripheral neuropathy, muscular dystrophy, etc.)	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has peripheral neuropathy, muscular dystrophy or any other neuromuscular disorder that significantly impairs muscle power, sensation or coordination. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has peripheral neuropathy, muscular dystrophy or any other neuromuscular disorder that significantly impairs muscle power, sensation or coordination. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification.

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Parkinson's disease	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has Parkinson's disease with significant impairment of movement or reaction time or the onset of dementia. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability and the response to treatment the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has Parkinson's disease. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability and the response to treatment the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).
Stroke (cerebral infarction or intracerebral haemorrhage)	<p>A person should not drive for at least four weeks following a stroke.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a stroke producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority at least four weeks after a stroke and subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). 	<p>A person should not drive for at least three months following a stroke.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a stroke. <p>A conditional licence may be considered by the driver licensing authority after at least three months and subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).
Transient ischaemic attack (advisory only)	<p>A person should not drive for at least two weeks following a TIA.</p> <p>A conditional licence is not required.</p>	<p>A person should not drive for at least four weeks following a TIA.</p> <p>A conditional licence is not required.</p>

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Space-occupying lesions (including brain tumours) (refer also to intracranial surgery, page 94)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a space-occupying lesion that results in significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor about the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>If seizures occur, the standards for seizures and epilepsy apply (refer to section 6.2 Seizures and epilepsy).</p> <p>If surgically treated, the advice for intracranial surgery applies (page 94).</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a space-occupying lesion. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>If seizures occur, the standards for seizures and epilepsy apply (refer to section 6.2 Seizures and epilepsy).</p> <p>If surgically treated, the advice for intracranial surgery applies (page 94).</p>
<p>Subarachnoid haemorrhage (refer also to aneurysms, page 93)</p>	<p>A person should not drive for at least three months after a subarachnoid haemorrhage.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a subarachnoid haemorrhage. <p>(continued overleaf)</p>	<p>A person should not drive for at least six months after a subarachnoid haemorrhage.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a subarachnoid haemorrhage. <p>(continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Subarachnoid haemorrhage (con't) (refer also to aneurysms, page 93)	<p>A conditional licence may be considered by the driver licensing authority, after three months and subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). 	<p>A conditional licence may be considered by the driver licensing authority, after six months and subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).
Other neurological conditions	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a neurological disorder that significantly impairs any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor about the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>Periodic review may not be necessary if the condition is static.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a neurological disorder that significantly impair any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist about the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>Periodic review may not be necessary if the condition is static.</p>

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Wood JM, Worringham C, Kerr G, Mallon K, Silburn P, Quantitative assessment of driving performance in Parkinson's disease. *J Neurol Neurosurg Psychiatry*, 2005; 76:176–180.
3. Hawley CA, Return to driving after head injury. *Journal of Neurology, Neurosurgery and Psychiatry*, 2001; 70(6), 761–766.
4. Heikkila VM et al, Decreased driving ability in people with Parkinson's disease. *Journal of Neurology, Neurosurgery and Psychiatry*, 1998; 64(3), 325–330.

7. PSYCHIATRIC CONDITIONS

Refer also to section 6 [Neurological conditions](#) and section 9 [Substance misuse](#).

Psychiatric conditions encompass a range of cognitive, emotional and behavioural conditions such as schizophrenia, depression, anxiety disorders and personality disorders. They also include dementia and substance abuse conditions, which are addressed elsewhere in the standards (refer to section 6.1 [Dementia](#) and section 9 [Substance misuse](#)).

7.1 RELEVANCE TO THE DRIVING TASK

7.1.1 Effects of psychiatric conditions on driving¹

Psychiatric conditions may be associated with disturbances of behaviour, cognitive abilities and perception and therefore have the potential to affect driving ability. They do, however, differ considerably in their aetiology, symptoms and severity, and may be occasional or persistent. The impact of mental illness also varies depending on a person's social circumstances, occupation and coping strategies. Assessment of fitness to drive must therefore be individualised and should rely on evaluation of the specific pattern of illness and potential impairments as well as severity, rather than the diagnosis per se. The range of potential impairments for various conditions is described below.

People with **schizophrenia** may have impairments across many domains of cognitive function including:

- reduced ability to sustain concentration or attention
- reduced cognitive and perceptual processing speeds, including reaction time
- reduced ability to perform in complex conditions, such as when there are multiple distractions
- perceptual abnormalities, such as hallucinations that distract attention or are preoccupying
- delusional beliefs that interfere with driving; for example, persecutory beliefs may include being followed and result in erratic driving, or grandiose beliefs may result in extreme risk taking.

People with **bipolar affective condition** may demonstrate:

- depression and suicidal ideation
- mania or hypomania, with impaired judgement about driving skill and associated recklessness, and/or
- delusional beliefs that directly affect driving.

People with **depression** may demonstrate:

- disturbances in attention, information processing and judgement, including reduced ability to anticipate
- psychomotor retardation and reduced reaction times
- sleep disturbances and fatigue, and/or
- suicidal ideation that may manifest in reckless driving.

People with **anxiety conditions** (including post-traumatic stress disorder) may:

- be preoccupied or distractible, and/or
- experience panic attacks or obsessional behaviours that may impair driving.

People with **personality conditions** may be:

- aggressive or impulsive, and/or
- resentful of authority or reckless.

These impairments are difficult to determine because impairment differs at various phases of the illness and may vary markedly between individuals. The impairments described above are particularly important for commercial vehicle drivers.

7.1.2 Evidence of crash risk¹

There is limited evidence regarding the impact of psychiatric illness on crash risk. Some studies have shown that drivers with psychiatric illness have an increased crash risk compared with drivers without psychiatric illness. There is also specific evidence for increased risk among those with schizophrenia and personality conditions. The evidence suggests a modestly elevated risk for people with low levels of impairment; however, it is possible that people with higher levels of impairment self-regulate their driving or drive more slowly and cautiously, thus reducing their risk.

7.1.3 Impairments associated with medication

Medications prescribed for treating psychiatric conditions may impair driving performance. There is, however, little evidence that medication if taken as prescribed, contributes to crashes; in fact, it may even help reduce the risk of a crash (refer to Part A section 4.8 [Drugs and driving](#)). Numerous psychotropic medications have been shown to impair perception, vigilance and psychomotor skills. Many medications can produce side effects such as sedation, lethargy, impaired psychomotor function and sleep disturbance. Benzodiazepines have especially been shown to impair vision, attention, information processing, memory, motor coordination and combined-skill tasks. Tolerance to the sedating effects may develop after the first few weeks although other cognitive impairments may persist. The assessment of medication effects should be individualised and rely upon self-report, observation, clinical assessment and collateral information to determine if particular medications might affect driving. Health professionals should have heightened concern when sedative medications are prescribed but should also consider the need to treat psychiatric conditions effectively. Refer also to section 9 [Substance misuse](#). Further advice may be obtained from GP Psych Support.

GP Psych Support

GP Psych Support is a free service providing patient management advice for GPs in the areas of general adult psychiatry, child and adolescent psychiatry, old-age psychiatry and drug and alcohol psychiatry.

Provided by psychiatrists, the service responds to enquiries within 24 hours.

Free phone: 1800 200 588. You will be asked some brief questions concerning your enquiry and a psychiatrist will call you back within 24 hours.

Free fax: 1800 012 422. Using the **faxback form**, provide details regarding the issue for discussion. A psychiatrist will then fax or phone you to discuss case details.

Web: www.psychsupport.com.au is a secure and password protected website. Log in and submit your questions online. For your username and password, call 1800 200 588.

7.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

7.2.1 General considerations

In assessing the impact of mental illness on the ability to drive safely, the focus should be on assessing the severity and significance of likely functional effects, rather than the simple diagnosis of a mental illness. The review period should be tailored to the likely prognosis or pattern of progression of the condition in an individual. Commercial vehicle licences warrant greater concern and a lower threshold for intervention.

Mild mental illness does not usually have a significant impact on functioning. Moderate levels of mental illness commonly affect functioning, but many people will be able to manage usual activities, often with some modification. Severe mental illness often impairs multiple domains of functioning, and it is this category that is most likely to impact on the functions and abilities required for safe driving. A person's medication requirements should not be used as the only measure of disease severity.

7.2.2 Mental state examination

The mental state examination (MSE) can be usefully applied in identifying areas of impairment that may affect fitness to drive.

- **Appearance:** Appearance is suggestive of general functioning (e.g. attention to personal hygiene, grooming, sedation, indications of substance use).
- **Attitude:** This may, for example, be described as cooperative, uncooperative, hostile, guarded or suspicious. While subjective, it helps to evaluate the quality of information gained in the rest of the assessment and may reflect personality attributes.
- **Behaviour:** This may include observation of specific behaviours or general functioning including ability to function in normal work and social environments.
- **Mood and affect:** This includes elevated mood (increase in risk taking) and low mood (suicidal ideation, particularly if past attempts, current ideation or future plans involve driving vehicles). Suicide involving motor vehicles is relatively common.
- **Thought form, stream and content:** This relates to the logic, quantity, flow and subject of thoughts that may be affected by mania, depression, schizophrenia or dementia. Delusions with specific related content may impact on driving ability.
- **Perception:** This relates to the presence of disturbances, such as hallucinations, that may interfere with attention or concentration, or may influence behaviour.

- **Cognition:** This relates to alertness, orientation, attention, memory, visuospatial functioning, language functions and executive functions. Evidence from formal testing, screening tests and observations related to adaptive functioning may be sought to determine if a psychiatric disorder is associated with deficits in these areas that are relevant to driving.
- **Insight:** Insight relates to self-awareness of the effects of the condition on behaviour and thinking. Assessment requires exploration of the person's awareness of the nature and impacts of their condition and has major implications for management.
- **Judgement:** The person's ability to make sound and responsible decisions has obvious implications for road safety. As judgement may vary, it should not be assessed in a single consultation.

7.2.3 Treatment

The effects of prescribed medication should also be considered for the individual including:

- how medication may help to control or overcome aspects of the condition that may impact on driving safety
- what medication side effects may affect driving ability including risk of sedation, impaired reaction time, impaired motor skills, blurred vision, hypotension or dizziness.

Alternative treatments including 'talking therapies' may be useful as an alternative or supplement to medication and lessen the risk of medication affecting driving.

7.2.4 Substance abuse (refer also to section 9 Substance misuse)

People with a 'dual diagnosis' of psychiatric condition and drug or alcohol abuse are likely to be at higher risk and warrant careful consideration. The assessment should seek to identify the potential relevance of:

- problematic alcohol consumption
- use of illicit substances
- prescription drug abuse (e.g. increased use of sedatives or painkillers).

7.2.5 Insight

The presence or absence of insight has implications for management.

- The person with insight may recognise when they are unwell and self-limit their driving.
- Limited insight may be associated with reduced awareness or deficits and may result in markedly impaired judgement or self-appraisal.
- When the person exhibits significantly impaired insight and appears unwilling to accept advice about restricting their driving, the health professional should consider if it is appropriate to report directly to the driver licensing authority and if so, determine how best such notification can be made while continuing to engage the person in treatment that is beneficial to them. Refer to Part A section [2.3.1 Confidentiality, privacy and reporting to the driver licensing authority](#) and [Appendix 3.2: Legislation relating to reporting by health professionals](#).

7.2.6 Acute psychotic episodes

A person suffering an acute episode of mental illness (e.g. psychosis, moderate–severe depression or mania) may pose a significant risk. The health professional should advise a person in this situation not to drive until their condition has stabilised and a decision can be made regarding their future licence status. This is particularly relevant to commercial vehicle drivers.

7.2.7 Severe chronic conditions

A person with a severe chronic or relapsing psychiatric condition needs to be assessed regarding the effect of the illness on impairment and the skills needed to drive and the impairments that may arise. This may include a clinical assessment (e.g. neuropsychological) and may also include an on-road driving assessment (refer to Part A section [4.9 Practical driver assessments](#)).

7.2.8 Personality disorders

People with some personality conditions may display aggressive, irresponsible or erratic behaviour. Such people may benefit from psychiatric interventions. Their licence status may also need to be managed through administrative, police or legal channels.

7.2.9 Other psychiatric conditions

Specialist advice may need to be sought regarding drivers who have conditions such as attention deficit hyperactivity disorder (ADHD) or Tourette's syndrome. If a person is prescribed stimulants (e.g. dexamphetamine) for treating ADHD, this should be stated in the advice provided to the driver licensing authority, in case the person is subject to drug testing when driving in the future.

Where a psychiatric condition is associated with epilepsy or illicit drug use, the relevant section should also be referred to.

7.3 MEDICAL STANDARDS FOR LICENSING

Requirements for unconditional and conditional licences are outlined in the following table.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – PSYCHIATRIC CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Psychiatric conditions	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a chronic psychiatric condition of such severity that it is likely to impair insight, behaviour, cognitive ability or perception required for safe driving. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the condition is well controlled and the person is compliant with treatment over a substantial period; and the person has insight into the potential effects of their condition on safe driving; and there are no adverse medication effects that may impair their capacity for safe driving; and the impact of comorbidities has been considered (e.g. substance abuse). 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has a chronic psychiatric condition of such severity that is likely to impair behaviour, cognitive ability or perception required for safe driving. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by a psychiatrist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the condition is well controlled and the person is compliant with treatment over a substantial period; and the person has insight into the potential effects of their condition on safe driving; and there are no adverse medication effects that may impair their capacity for safe driving; and the impact of comorbidities has been considered (e.g. substance abuse).

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section [4.5 Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>

8. SLEEP DISORDERS

Refer also to section 1 [Blackouts](#).

8.1 RELEVANCE TO THE DRIVING TASK

8.1.1 Evidence of crash risk¹

Studies have shown an increased rate of motor vehicle crashes, of between two and seven times that of control subjects, in those with sleep apnoea. Studies have also demonstrated increased objectively measured sleepiness while driving (electro-encephalography and eye closure measurements) and impaired driving-simulator performance in people with confirmed sleep apnoea. This performance impairment is similar to that seen due to illegal alcohol impairment or sleep deprivation. Drivers with severe sleep disordered breathing (respiratory disturbance index greater than 34) may have a higher rate of crashes than those with a less severe sleep disorder.

Those with narcolepsy perform worse on simulated driving tasks and are more likely to have vehicle crashes than control subjects.

In commercial vehicle drivers fatigue from sleep deprivation due to shift work also contributes to the risk of a crash. Fatigue should be managed as per *NTC Guidelines for Managing Heavy Vehicle Driver Fatigue* (www.ntc.gov.au).

8.1.2 Impact of treatment on crash risk²

Treatment of obstructive sleep apnoea with nasal continuous positive airways pressure (CPAP) has been shown to reduce daytime sleepiness and reduce the risk of crashes to the same level as controls. CPAP has also been shown to improve driving-simulator performance to the same levels as the control group. When used to treat obstructive sleep apnoea, mandibular advancement splints reduce daytime sleepiness and improve vigilance; however, studies have not been performed to assess whether they reduce motor vehicle crash rates.

8.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

8.2.1 General considerations

Excessive daytime sleepiness, which manifests itself as a tendency to doze at inappropriate times when intending to stay awake, can arise from many causes and is associated with an increased risk of motor vehicle crashes. It is important to distinguish sleepiness (the tendency to fall asleep) from fatigue or tiredness that is not associated with a tendency to fall asleep. Many chronic illnesses cause fatigue without increased sleepiness.

Increased sleepiness during the daytime in otherwise normal people may be due to prior sleep deprivation (restricting the time for sleep), poor sleep hygiene habits, irregular sleep-wake schedules or influence of sedative medications, including alcohol. Insufficient sleep (less than five hours) prior to driving is strongly related to motor vehicle crash risk.³ Excessive daytime sleepiness may also result from a number of medical sleep disorders including the sleep apnoea syndromes (obstructive sleep apnoea, central sleep apnoea and nocturnal hypoventilation), periodic limb movement disorder, circadian rhythm disturbances (e.g. advanced or delayed sleep phase syndrome), some forms of insomnia and narcolepsy.

Unexplained episodes of 'sleepiness' may also require consideration of the several causes of blackouts (refer to section 1 [Blackouts](#)).

8.2.2 Identifying and managing people at high crash risk

Until the disorder is investigated, treated effectively and licence status determined, people should be advised to avoid or limit driving if they are sleepy, and not to drive if they are at high risk, particularly in the case of commercial vehicle drivers. High-risk people include:

- those who experience moderate to severe excessive daytime sleepiness (Epworth Sleepiness Scale score of 16 to 24)
- those with a history of frequent self-reported sleepiness while driving and
- those who have had a motor vehicle crash caused by inattention or sleepiness.

People with these high-risk features have a significantly increased risk of sleepiness-related motor vehicle crashes (odds ratio 15.2). These people should be referred to a sleep disorders specialist, particularly in the case of commercial vehicle drivers.

8.2.3 Sleep apnoea

Definitions and prevalence

Sleep apnoea is present on overnight monitoring in 9% of adult women and 24% of adult men. Sleep apnoea syndrome (excessive daytime sleepiness in combination with sleep apnoea on overnight monitoring) is present in 2% of women and 4% of men. Some studies suggest a higher prevalence in transport drivers.

SLEEP DISORDERS

Obstructive sleep apnoea (OSA) involves repetitive obstruction to the upper airway during sleep, caused by relaxation of the dilator muscles of the pharynx and tongue and/or narrowing of the upper airway, and resulting in cessation (apnoea) or reduction (hypopnoea) of breathing.

Central sleep apnoea refers to a similar pattern of cyclic apnoea or hypopnoeas caused by oscillating instability of respiratory neural drive, and not due to upper airways factors. This condition is less common than obstructive sleep apnoea and is associated with cardiac or neurological conditions. It may also be idiopathic. Hypoventilation associated with chronic obstructive pulmonary disease (COPD) or chronic neuromuscular conditions may also interfere with sleep quality causing excessive sleepiness.

Sleep apnoea assessment

Clinical features: Common clinical features of sleep apnoea include:

- habitual snoring during sleep
- witnessed apnoeic events (often in bed by a spouse/partner) or falling asleep inappropriately (particularly during non-stimulating activities such as watching television, sitting reading, travelling in a car, when talking with someone)
- feeling tired despite adequate time in bed.

Poor memory and concentration, morning headaches and insomnia may also be presenting features.

The condition is more common in men and with increasing age. Physical features commonly include obesity (BMI > 35), a thick neck (> 42cm in men, > 41cm in women) and a narrow oedematous ('crowded') oropharynx. The presence of type 2 diabetes and difficult-to-control high blood pressure should also increase the suspicion of sleep apnoea. However, the condition may be present without these features.

Subjective measures of sleepiness: Determining excessive daytime sleepiness is a clinical decision, which may be assisted with clinical tools. Subjective measures include tools such as the Epworth Sleepiness Scale (ESS)* or equivalent. The responses to eight questions relating to the likelihood of falling asleep in certain situations are scored and summed. A score of 0–10 is within the normal range. Mild to moderate self-reported sleepiness (Epworth Sleepiness Scale score of 11–15) may be associated with a significant sleep disorder, but only a small increase in crash risk.⁷ Scores of 16–24 are consistent with moderate to severe excessive daytime sleepiness and are associated with an increased risk of sleepiness-related motor vehicle crashes (odds ratio 3 to 15). A history of frequent self-reported sleepiness while driving or motor vehicle crashes caused by sleepiness also indicates a high risk of motor vehicle crashes (odds ratio 5 to 13).

Epworth Sleepiness Scale questions

How likely are you to doze off or fall asleep in the following situations?

(scored 0–3, where: 0 = never, 1 = slight chance, 2 = moderate chance, 3 = high chance of dozing)

- | | SCORE |
|--|--------------------------|
| 1. Sitting and reading | <input type="checkbox"/> |
| 2. Watching TV | <input type="checkbox"/> |
| 3. Sitting, inactive in a public place (e.g. a theatre or meeting) | <input type="checkbox"/> |
| 4. As a passenger in a car for an hour without a break | <input type="checkbox"/> |
| 5. Lying down to rest in the afternoon when circumstances permit | <input type="checkbox"/> |
| 6. Sitting and talking to someone | <input type="checkbox"/> |
| 7. Sitting quietly after a lunch without alcohol | <input type="checkbox"/> |
| 8. In a car, while stopped for a few minutes in the traffic | <input type="checkbox"/> |

Total Score :

**The Epworth Sleepiness Scale is under copyright to Dr Murray Johns 1991–1997. It may be used by individual doctors without permission, but its use on a commercial basis must be negotiated.*

Objective measures of sleepiness: Objective measures include the maintenance of wakefulness test (MWT) and multiple sleep latency test (MSLT). Excessive sleepiness on the maintenance of wakefulness test is related to impaired driving performance.

Screening tools, which combine questions and physical measurements (e.g. The Multivariate Apnoea Prediction Questionnaire), have been evaluated for screening people for sleep disorders in a clinic setting. Their efficacy for screening large general populations remains under evaluation.

Referral and management: People in whom sleep apnoea, chronic excessive sleepiness or another medical sleep disorder is suspected should be referred to a specialist sleep physician for further assessment, investigation with overnight polysomnography and management. Referral to a sleep specialist should also be considered for any person who has unexplained daytime sleepiness while driving, or who has been involved in a motor vehicle crash that may have been caused by sleepiness. Kits for home assessment may be helpful to those in rural and remote areas.

Commercial vehicle drivers: Commercial vehicle drivers who are diagnosed with obstructive sleep apnoea syndrome and require treatment are required to have annual review by a sleep specialist to ensure that adequate treatment is maintained. For drivers who are treated with CPAP, it is recommended that they should use CPAP machines with a usage meter to allow objective assessment and recording of treatment compliance. Assessment of sleepiness should be made and an objective measurement of sleepiness should be considered (maintenance of wakefulness test or multiple sleep latency test), particularly if there is concern regarding persisting sleepiness or treatment compliance.

8.2.4 Narcolepsy

Narcolepsy is present in 0.05% of the population and usually starts in the second or third decade of life. Sufferers present with excessive sleepiness and can have periods of sleep with little or no warning of sleep onset. Other symptoms include cataplexy, sleep paralysis and vivid hypnagogic hallucinations. The majority of sufferers are HLA-DR2 positive. There is a subgroup of individuals who are excessively sleepy but do not have all the diagnostic features of narcolepsy. Inadequate warning of oncoming sleep and cataplexy put drivers at high risk.

Diagnosis of narcolepsy is made on the combination of clinical features, HLA typing and multiple sleep latency test (MSLT), with a diagnostic sleep study on the prior night to exclude other sleep disorders and aid interpretation of the MSLT.

Persons suspected of having narcolepsy should be referred to a sleep specialist or neurologist for assessment (including a MSLT) and management.

Sleepiness in narcolepsy can usually be managed effectively with scheduled naps and stimulant medication. Tricyclic antidepressants and MAO inhibitors are used to treat cataplexy. Commercial vehicle drivers on a conditional licence should have a review at least annually by their specialist.

8.2.5 Advice to patients

All patients suspected of having sleep apnoea or other sleep disorders should be warned about the potential effect on road safety. General advice may include:

- minimising unnecessary driving
- minimising driving at times when they would normally be asleep
- allowing adequate time for sleep and avoiding driving after having missed a large portion of their normal sleep
- avoiding alcohol and sedative medications
- avoiding using over-the-counter or other non-prescribed substances for maintaining wakefulness
- ensuring prescribed treatments are taken as required
- resting and limiting driving if they are sleepy
- heeding the advice of a passenger that the driver is dozing off.

It is the responsibility of the driver to avoid driving if they are sleepy, comply with treatment, maintain their treatment device, attend review appointments, and honestly report their condition to their treating physician.

8.3 MEDICAL STANDARDS FOR LICENSING

Requirements for unconditional and conditional licences are outlined in the following table.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person’s fitness to drive.

PART B: 8

MEDICAL STANDARDS FOR LICENSING – SLEEP DISORDERS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Sleep apnoea	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has established sleep apnoea syndrome (sleep apnoea on a diagnostic sleep study and moderate to severe excessive daytime sleepiness), or • if the person has frequent self-reported episodes of sleepiness or drowsiness while driving, or • if the person has had motor vehicle crash/es caused by inattention or sleepiness, or • if the person, in opinion of the treating doctor, represents a significant driving risk as a result of a sleep disorder. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the person is compliant with treatment; and • the response to treatment is satisfactory. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has established sleep apnoea syndrome (sleep apnoea on a diagnostic sleep study and moderate to severe excessive daytime sleepiness), or • if the person has frequent self-reported episodes of sleepiness or drowsiness while driving, or • if the person has had motor vehicle crash/es caused by inattention or sleepiness, or • if the person, in opinion of the treating doctor, represents a significant driving risk as a result of a sleep disorder. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by a specialist in sleep disorders as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the person is compliant with treatment; and • the response to treatment is satisfactory.
Narcolepsy	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if narcolepsy is confirmed. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by a specialist in sleep disorders on the response to treatment.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if narcolepsy is confirmed. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account the nature of the driving task and information provided by a specialist in sleep disorders as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • cataplexy has not been a feature in the past; and • medication is taken regularly; and • there has been an absence of symptoms for six months; and • normal sleep latency present on MWT (on or off medication).

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. George CF, Reduction in motor vehicle collisions following treatment of sleep apnoea with nasal CPAP. *Thorax*, 2001; 56(7): 508–512.
3. Findley, L.J. et al., Driving simulator performance in patients with sleep apnea. *Am Rev Respir Dis*, 1989. 140(2): p.529-30.
4. Turkington, P.M. et al., Relationship between obstructive sleep apnea, driving simulator performance, and risk of road traffic accidents. *Thorax*, 2001. 56(10): p.800-5.
5. Mehta A et al, A randomized, controlled study of a mandibular advancement splint for obstructive sleep apnea. *American Journal of Respiratory & Critical Care Medicine*, 2000; 163(6): 1457–1461.
6. Stutts JC, Wilkins JW and Vaughn BV, *Why Do People Have Drowsy Driver Crashes?* 1999, AAA Foundation for Traffic Safety: Washington: 1–85.
7. Howard M et al, Sleepiness, sleep-disordered breathing, and accident risk factors in commercial vehicle drivers. *AJRCCM*, 2004; 170(9): 1014–1021.
8. Masa JF, Rubio M and Findley LJ, Habitually sleepy drivers have a high frequency of automobile crashes associated with respiratory disorders during sleep. *American Journal of Respiratory & Critical Care Medicine*, 2000; 162(4 Pt 1): 1407–1412.
9. Lloberes P et al, Self-reported sleepiness while driving as a risk factor for traffic accidents in patients with obstructive sleep apnoea syndrome and in non-apnoeic snorers. *Respiratory Medicine*, 2000; 94(10): 971–976.
10. Aldrich MS, Chervin RD and Malow BA, Value of the multiple sleep latency test (MSLT) for the diagnosis of Narcolepsy. *Sleep*, 1997; 20(8): 620–629.
11. Broughton RJ et al, Randomized, double-blind, placebo-controlled crossover trial of modafinil in the treatment of excessive daytime sleepiness in narcolepsy. *Neurology*, 1997; 49(2): 444–451.
12. Hartenbaum N et al, Sleep Apnea and Commercial Motor Vehicle Operators: Statement From the Joint Task Force of the American College of Chest Physicians, American College of Occupational and Environmental Medicine, and the National Sleep Foundation. *JOEM* 2006; 48, (9), Supplement September.

9. SUBSTANCE MISUSE

(including alcohol, illicit drugs and prescription drug misuse)

This chapter focuses mainly on regular heavy use of, and dependence on, alcohol and other substances (including illicit and prescription or over-the-counter drugs). The standards for licensing do not address acute intoxication, which is subject to drink-drug driving laws (refer to [Appendix 4: Drivers' legal BAC limits](#)). However, it is possible for a long-term dependent person to be impaired due to both chronic use and recent consumption, and these risks are factors in considering the fitness to drive of such people. More information about acute intoxication and driving can be found on driver licensing authority websites.

Chronic misuse of alcohol and other substances can lead to a syndrome of dependence, characterised by several of the following features:

- tolerance, as defined by either a need for markedly increased amounts of the substance to achieve intoxication or desired effect, or a markedly diminished effect with continued use of the same amount of substance
- withdrawal, as manifested by either the characteristic withdrawal syndrome for the substance, or the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
- the substance is often taken in larger amounts or over a longer period than was intended
- there is a persistent desire or unsuccessful efforts to cut down or control substance use
- a great deal of time is spent in activities to obtain the substance, use the substance or recover from its effects
- important social, occupational or recreational activities are given up or reduced because of substance use, and/or
- the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g. continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

9.1 RELEVANCE TO THE DRIVING TASK

9.1.1 Effects of long-term alcohol use and other substance use on driving^{1,2,3,4}

Alcohol

Chronic heavy alcohol use carries some risk of neurocognitive deficits relevant to driving capability including:

- short-term memory and learning impairments, which become more evident as the difficulty of the task increases
- impaired perceptual-motor speed
- impaired visual search and scanning strategies
- deficits in executive functions such as: mental flexibility and problem-solving skills; planning, organising and prioritising tasks; focusing attention, sustaining focus and shifting focus from one task to another; filtering out distractions; monitoring and regulating self-action; or impulsivity.

Long-term heavy alcohol use is also associated with various end-organ pathologies that may affect ability to drive, for example, Wernicke-Korsakoff syndrome or peripheral neuropathies experienced as numbness or paresthesia of the hands or feet. In the event of end-organ effects relevant to driving, the appropriate requirements should be applied as set out elsewhere in this publication.

Alcohol-dependent people may experience a withdrawal syndrome on cessation or significant reduction of intake, which carries some risk of generalised seizure, confusional states and hallucinations.

Other substances

Substances (prescribed, over-the-counter and illicit) are misused for their intoxicating, sedative or euphoric effects. Drivers under the influence of these drugs are more likely to behave in a manner incompatible with safe driving. This may involve, but not be limited to, risk taking, aggression, feelings of invulnerability, narrowed attention, altered arousal states and poor judgement.

Illicit substances are a heterogeneous group. Chronic effects of their use vary and are not as well understood as those of alcohol. Some evidence suggests cognitive impairment is associated with chronic stimulant, opioid and benzodiazepine use. Illicit substance users may be at risk of brain injury through hypoxic overdose, trauma or chronic illness.

End-organ damage, including cardiac, neurological and hepatic damage, may be associated with some forms of illicit substance use, particularly injection drug use. Cocaine and other stimulant misuse have been linked with cardiovascular pathology. In the event of end-organ effects relevant to driving, the appropriate requirements should be applied as set out elsewhere in this publication.

9.1.2 Evidence of crash risk^{1,5,6}

Alcohol

The relationship between raised alcohol levels and crash risk is well established, and it has been estimated that driving while intoxicated contributes to 30–50% of fatal crashes, 15–35% of crashes involving injury and 10% of crashes not involving injury.

Increasing levels of intoxication result in disproportionate increases in the risk of a motor vehicle crash. For example, with a blood alcohol concentration (BAC) of 0.05 g/100 mL, a driver is twice as likely to be involved in a fatal crash as one with no alcohol; at 0.10 a driver has five times the relative risk; and at 0.20, there is a 25 times greater risk of a fatal crash.

In countries where laws are less restrictive than in Australia, it has been shown that less experienced drivers have alcohol-related crashes at lower BACs than more experienced drivers. This supports the differing BACs mandated in our graduated licensing system, and, in the case of commercial vehicle drivers, 'zero' BAC is mandated (refer to [Appendix 4: Drivers' legal BAC limits](#)). It also supports paying particular attention to inexperienced and young drivers with regard to drinking behaviour and driving.

Individuals with alcohol dependency have approximately twice the risk of crash involvement as controls. In addition, drivers with alcohol dependency are more likely to drive while intoxicated despite prior conviction for drink-driving.

Drugs

While there is limited evidence regarding crash risk and drug dependency per se, approximately 13% of fatal crashes are attributed to drug use. The risk is amplified with alcohol-drug and impairing drug-drug combinations.

Amphetamine-type stimulants (ATS) are a particular hazard for long-distance truck drivers. An Australian 'culpability' study found ATS in 4.1% of all fatally injured drivers and 23% of fatally injured truck drivers.

Cannabis - The relationship between blood levels of tetrahydrocannabinol (THC) and crash risk is not as well understood as for other drugs. This is because of the complex pharmacokinetics of this drug. An Australian culpability study found a fatal crash risk odds ratio of 6.6 at levels of THC at or above 5 ng/mL compared with drug-free drivers (sex and age adjusted) with risk rising at higher levels.

Benzodiazepines also increase the risk of a crash. In Australian studies they are found in about 4% of fatalities and 16% of injured drivers. In many cases the benzodiazepines were not abused but were used in combination with other impairing substances.

9.1.3 Effects of alcohol or drugs on other diseases

People who are frequently intoxicated and who also suffer from certain other medical conditions are often unable to give their other medical problems the careful attention required, which has implications for safe driving.

Epilepsy

Many people with epilepsy are quite likely to have a seizure if they miss their prescribed medication even for a day or two, particularly when this omission is combined with inadequate rest, emotional turmoil, irregular meals and alcohol or other substances. Patients under treatment for any kind of epilepsy are not fit to drive any class of motor vehicle if they are frequently intoxicated.

Diabetes

People with insulin-dependent diabetes have a special problem when they are frequently intoxicated. Not only may they forget to inject their insulin at the proper time and in the proper quantity, but also their food intake can get out of balance with the insulin dosage. This may result in a hypoglycaemic reaction or the slow onset of diabetic coma.

9.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

9.2.1 General considerations

Chronic misuse of drugs is incompatible with safe vehicle driving. Careful individual assessment must be made of drivers who misuse alcohol or other substances (prescribed or illicit). Substance misuse may not be confined to a single drug class, and people may use multiple substances in combination. In addition, people who misuse substances may change from one substance to another. Occasional use of these drugs also requires very careful assessment. In particular, the health professional should be satisfied that their usage is not going to affect a commercial vehicle driver in the performance of their duties.

During clinical assessment, patients may understate or deny substance use for fear of consequences of disclosure. The acute and chronic cognitive effects of some substance use also contribute to difficulty in obtaining accurate history and identification of substance use. Assessment should therefore incorporate a range of indicators of substance use in addition to self-report.

Secondary opinion from an appropriate specialist, such as an addiction medicine specialist or addiction psychiatrist, may be necessary, and further assessment and/or ongoing monitoring by the treating doctor may be indicated, including relevant investigations, particularly in the case of commercial vehicle drivers. In particular, people with combined substance use disorder and mental illness ('dual diagnosis') may have a level of complexity requiring specialist assessment.

9.2.2 Assessment tools

Screening tests may be useful for assessing substance use disorders. For example, the Alcohol Use Disorders Identification Test (AUDIT) may be used to screen for alcohol dependence (refer below). The total maximum score is 40. A score of eight or more indicates a strong likelihood of hazardous or harmful alcohol consumption. Referral to an appropriate specialist, such as an addiction medicine specialist or addiction psychiatrist, should be considered, particularly in the case of commercial vehicle drivers. The AUDIT relies on accurate responses to the questionnaire, and should be interpreted in the context of a global assessment that includes other clinical evidence. For more information about the AUDIT questionnaire, refer to http://whqlibdoc.who.int/hq/2001/who_msd_msb_01.6a.pdf

The Alcohol Use Disorders Identification Test (AUDIT) questionnaire⁷

Please tick the answer that is correct for you.

Scoring:

(0) **(1)** **(2)** **(3)** **(4)**

1. How often do you have a drink containing alcohol?

- Never Monthly or less 2 to 4 times a month 2 to 3 times a week 4 or more times a week
(skip to Q9)

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2 3 or 4 5 or 6 7, 8 or 9 10 or more

3. How often do you have six or more drinks on one occasion?

- Never Less than monthly Monthly Weekly Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

- Never Less than monthly Monthly Weekly Daily or almost daily

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

- Never Less than monthly Monthly Weekly Daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

- Never Less than monthly Monthly Weekly Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

- Never Less than monthly Monthly Weekly Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

- Never Less than monthly Monthly Weekly Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

- No Yes, but not in the last year Yes, during the last year

10. Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

- No Yes, but not in the last year Yes, during the last year

9.2.3 Opioid dependence

For people treated for opioid dependency, risk of impairment due to unsanctioned use of opioids or other substances is a consideration. Short-acting opioids, particularly parenteral forms, may cause fluctuation in blood levels of opioids, which would be expected to be incompatible with safe driving. People using these agents should be referred for assessment by an appropriate specialist such as an addiction medicine specialist or addiction psychiatrist. People on a stable dose of buprenorphine and methadone for their opioid dependency may not have a higher risk of a crash, providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs.

9.2.4 Non-cooperation in cessation of driving

Should the person continue to drive despite advice to the contrary, the health professional should consider the risk posed to other road users and take reasonable measures to minimise that risk, including notification to the driver licensing authority. This is particularly relevant for commercial vehicle drivers. Refer to Part A section [2.3.1 Confidentiality, privacy and reporting to the driver licensing authority](#) and [Appendix 3.2: Legislation relating to reporting by health professionals](#).

Alcohol ignition interlocks are devices that prevent a car starting if the driver has been drinking. Some states and territories have alcohol interlock programs where a driver who has been found guilty of serious or repeat drink-driving offences is subject to a licence condition that they only drive a motor vehicle with an alcohol interlock fitted. Generally an alcohol interlock condition is ordered by a court as part of the sentencing or the licence restoration process. For more information, contact the driver licensing authority (refer to [Appendix 8: Driver licensing authority contacts](#)).

9.3 MEDICAL STANDARDS FOR LICENSING

Requirements for unconditional and conditional licences are outlined in the following table.

In providing information to the driver licensing authority regarding suitability of the driver for a conditional licence, the health professional will need to consider the driver's substance use history, response to treatment and their level of insight. For example, in the case of patients with more severe substance use problems who have had previous high rates of relapse and fluctuation in stabilisation, a longer non-driving period should be considered prior to granting a conditional licence. Similarly a strong response to treatment and well-documented abstinence and recovery may enable provision of conditional licence after the minimum period. Remission may be confirmed by biological monitoring for presence of drugs.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person’s fitness to drive.

MEDICAL STANDARDS FOR LICENSING – ALCOHOL AND OTHER SUBSTANCE USE DISORDERS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Substance use disorder	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if there is an alcohol or other substance use disorder, such as substance dependence or heavy frequent alcohol or other substance use that is likely to impair safe driving. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by the treating doctor as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the person is involved in a treatment program and has been in remission* for at least one month; and • there is an absence of cognitive impairments relevant to driving; and • there is absence of end-organ effects that impact on driving (as described elsewhere in this publication). <p>* Remission is attained when there is abstinence from use of impairing substance/s or where substance use has reduced in frequency to the point where it is unlikely to cause impairment. Remission may be confirmed by biological monitoring for presence of drugs.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if there is an alcohol or other substance use disorder, such as substance dependence or heavy frequent alcohol use or other substance use that is likely to impair safe driving. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account the nature of the driving task and information provided by an appropriate specialist (such as an addiction medicine specialist or addiction psychiatrist) as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the person is involved in a treatment program and has been in remission* for at least three months; and • there is an absence of cognitive impairments relevant to driving; and • there is absence of end-organ effects that impact on driving (as described elsewhere in this publication). <p>* Remission is attained when there is abstinence from use of impairing substance/s or where substance use has reduced in frequency to the point where it is unlikely to cause impairment. Remission may be confirmed by biological monitoring for presence of drugs.</p>

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Barr AM et al, The need for speed: an update on methamphetamine addiction. *Journal of Psychiatry and Neuroscience*, 2006; 31(5): 301–313.
3. Brust JCM, Neurologic complications of substance abuse. *Journal of Acquired Immune Deficiency Syndromes*, 2002; 31: S29–S34
4. Frishman WH, Del Vecchio A, Sanal S, Ismail A, Cardiovascular manifestations of substance abuse: part 2, alcohol, amphetamines, heroin, cannabis and caffeine. *Heart Disease*, 2003; 5(4): 253–271.
5. Drummer O, Epidemiology and traffic safety. In: Versteer J, Pandi-Perumal J et al (eds), *Drugs, Driving and Traffic Safety*. Birkhauser Verlag, 2009.
6. Austroads, *The Austroads Report on Drugs and Driving in Australia*, 2000.
7. Babor TF, Higgin-Biddle JC, Sanders JB, Monteiro MG. The Alcohol Use Disorder Identification Test – Guidelines for use in primary care, Second edition 2001. World Health Organisation, Department Mental Health and Substance Abuse. http://whqlibdoc.who.int/hq/2001/who_msd_msb_01.6a.pdf

10. VISION AND EYE DISORDERS

10.1 RELEVANCE TO THE DRIVING TASK

10.1.1 Effects of vision and eye disorders on driving

Good vision is essential to operating a motor vehicle. Any marked loss of visual acuity or visual fields will diminish an individual's ability to drive safely. A driver with a significant visual defect may fail to detect another vehicle, pedestrians and/or warning signs, and will take appreciably longer to perceive and react to a potentially hazardous situation. Peripheral vision is particularly important in certain common driving tasks, such as merging into a traffic stream or changing lanes, and detecting pedestrians and vehicles to the side of the line of vision.

10.1.2 Evidence of crash risk^{1,2}

The evidence is inconsistent regarding visual fields and visual acuity and crash risk. This is likely due to the many methodological reasons outlined in Part A of this publication (refer to Part A section [1.6 Development and evidence base](#)). The degree to which reduced visual acuity increases the crash risk ranges from 1.17 to 7.6 times. While it is generally agreed that adequate visual fields are of utmost importance for safe driving, the actual cut-off value that should be set remains unclear.

The majority of research suggests there is no association between crash risk and colour vision abnormalities. While there is evidence that people with red-colour-deficient vision have difficulty in detecting red lights and stopping in laboratory and on-road testing, significant improvements in road engineering mean that people with red-colour deficiency may largely compensate for their deficiency while driving.

10.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

The two most important aspects of vision in relation to driving are:

- visual acuity
- visual fields.

10.2.1 Visual acuity

For the purposes of this publication, visual acuity is defined as a person's clarity of vision with or without glasses or contact lenses. Where a person does not meet the visual acuity standard at initial assessment, they may be referred for further assessment by an optometrist or ophthalmologist.

Assessment method

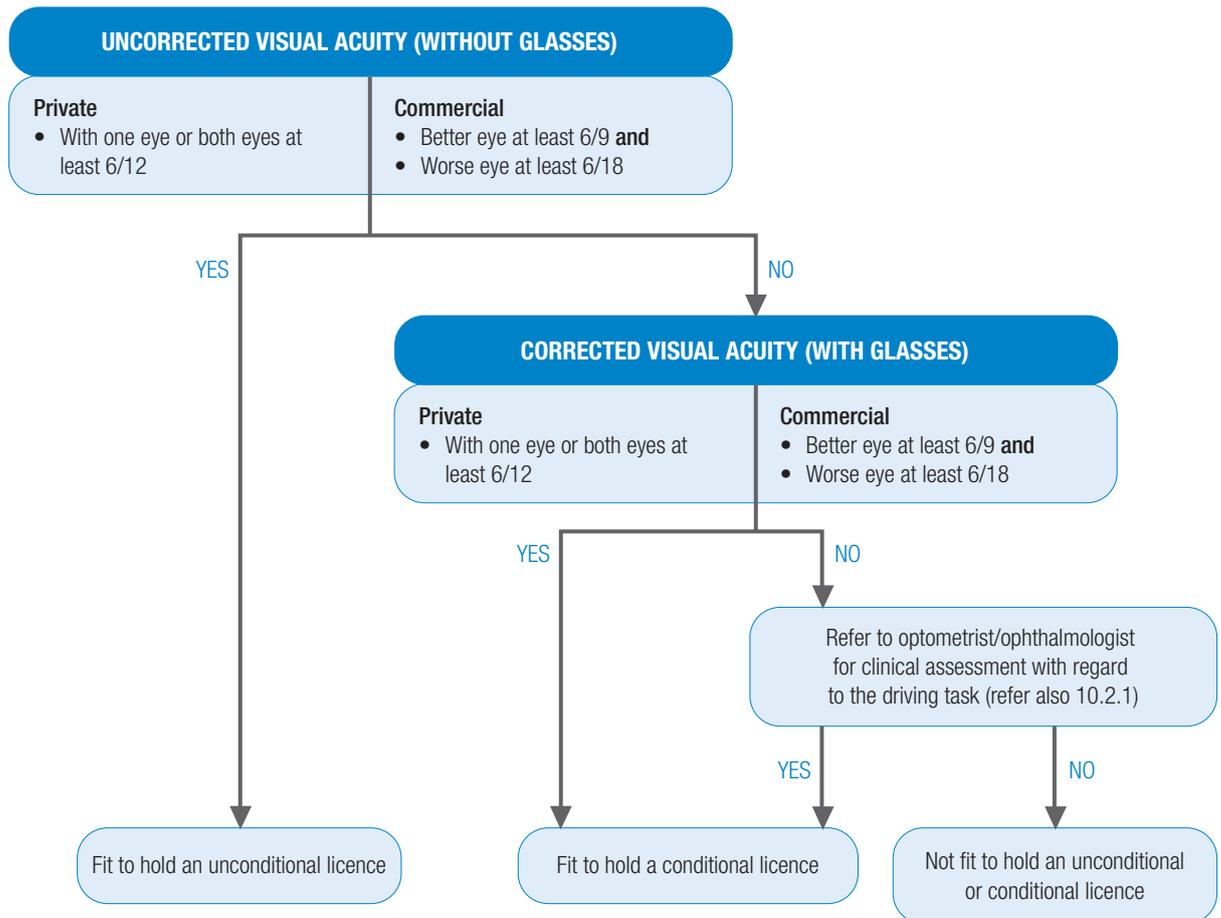
Visual acuity should be measured for each eye separately and without optical correction. If optical correction is needed, vision should be retested with appropriate corrective lenses.

Acuity should be tested using a standard visual acuity chart (Snellen or LogMAR chart or equivalent) with five letters on the 6/12 line. Standard charts should be placed 6 metres from the person tested; otherwise, a reverse chart can be used and viewed through a mirror from a distance of 3 metres. Other calibrated charts can be used at a minimum distance of 3 metres. More than two errors in reading the letters of any line is regarded as a failure to read that line. Refer to Figure 10 for management flow chart.

In the case of a private vehicle driver, if the person's visual acuity is just below that required by the standard but the person is otherwise alert, has normal reaction times and good physical coordination, an optometrist/ophthalmologist can recommend the granting of a conditional licence. The use of contrast sensitivity or other specialised tests may help in the assessment. However, a driver licence will not be issued when visual acuity in the better eye is worse than 6/24 for private vehicle drivers.

There is also some flexibility for commercial vehicle drivers depending on the driving task, providing the visual acuity in the driver's better eye (with or without corrective lenses) is 6/9 or better.

Restrictions on driving may be advised, for example, where glare is a marked problem.

Figure 10: Visual acuity requirements for private and commercial vehicle drivers

10.2.3 Visual fields

For the purposes of this publication, visual fields are defined as a measure of the extent of peripheral (side) vision. Visual fields may be reduced as a result of many neurological or ocular diseases or injuries. Monocular people may meet the standard for private vehicle driving but would not meet the unconditional commercial standard.

A longstanding field defect may lead to visual compensation. Such defects, for example a hemianopia from childhood, need to be assessed by an ophthalmologist/optometrist for a conditional licence to be considered.

Good rotation of the neck is also necessary to ensure adequate overall fields of vision, particularly for monocular drivers (refer to section 5 [Musculoskeletal disorders](#)).

Assessment method

Visual fields may be initially screened by confrontation. The health professional should sit close to and directly opposite the person and instruct the person to cover one eye. They should occlude their opposite eye like a mirror image. They then ask the person to fixate on the non-occluded eye and to count the number of fingers held up in each of the four corners of the health professional's visual field. Other extreme upper, lower and side points may also be tested. This process is then repeated for the other eye.

Confrontation is an inexact test. Any person who has, or is suspected of having, a visual field defect should be referred for assessment by an optometrist or ophthalmologist. Assessment will involve automated perimetry using an automated static perimeter (Kinetic Goldman Visual Field, Humphrey Field Analyser, Medmont M700, Octopus, etc.). If the automated perimetry suggests that the requirements for an unconditional licence are not met, then the Esterman binocular field test should be performed. While opinions on fitness to drive can be based on testing visual fields for each eye separately the Esterman binocular field is the preferred method of assessment.

In the case of a private vehicle driver, if a person's visual fields are just below that required by the standard but the person is otherwise alert, has normal reaction times and good physical coordination, an optometrist/ophthalmologist may support the granting of a conditional licence by the driver licensing authority. There is no flexibility in this regard for commercial vehicle drivers.

Monocular vision (one-eyed driver)

Monocular drivers have a reduction of visual fields due to the nose obstructing the medial visual field. They also have no stereoscopic vision and may have other deficits in visual functions.

For private vehicle drivers, a conditional licence may be considered by the driver licensing authority if the visual field is 110 degrees and the visual acuity is satisfactory in the remaining eye. The health of the remaining eye must be reviewed every two years.

People with monocular vision are generally not fit to drive a commercial vehicle. However, if an ophthalmologist/ optometrist assesses that the person may be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least annual review of the remaining eye.

Commercial vehicle drivers often have a good view of the road due to the elevation of their seat 2–3 metres above the road as well as large windscreens and wing mirrors that may help compensate for loss of visual fields. The safety of their driving record should also be taken into account.

Sudden loss of unilateral vision

A person who has lost an eye or most of the vision in an eye on a long-term basis has to adapt to their new visual circumstances and re-establish depth perception. They should therefore be advised not to drive for an appropriate period after the onset of their sudden loss of vision (usually three months). They should notify the driver licensing authority and be assessed according to the relevant visual field standard.

10.2.4 Diplopia

People suffering from all but minor forms of diplopia are generally not fit to drive. Any person who reports or is suspected of experiencing diplopia should be referred for assessment by an optometrist or ophthalmologist.

10.2.5 Progressive eye conditions

People with progressive eye conditions such as cataract, glaucoma, optic neuropathy and retinitis pigmentosa should be monitored regularly, and should be advised in advance regarding the potential future impact on their driving ability so that they may consider appropriate lifestyle changes.

10.2.6 Congenital and acquired nystagmus

Nystagmus may reduce visual acuity. Drivers with nystagmus must meet the visual acuity standard. Any underlying condition must be fully assessed to ensure there is no other issue that relates to fitness to drive. Those who have congenital nystagmus may have developed coping strategies that are compatible with safe driving and should be individually assessed by an appropriate specialist.

10.2.7 Colour vision

There is not a colour vision standard for drivers, either private or commercial. Doctors and optometrists should, however, advise drivers who have a significant colour vision deficiency about how this may affect their responsiveness to signal lights and the need to adapt their driving accordingly. Note, this standard applies only to driving within normal road rules and conditions. A standard requiring colour vision may be justified based on risk assessment for particular driving tasks.

10.2.8 Telescopic lenses (bioptic telescopes) and electronic aids

These devices are becoming available in Australia. At present there is little information on the safety or otherwise of drivers using these devices. In particular, their use may reduce visual perception in the periphery. No standards are set but it is recommended that drivers who wish to use these devices be individually assessed by an ophthalmologist/optometrist with expertise in the use of these devices.

10.2.9 Practical driving assessments

Practical driving assessments are not considered to be a safe or reliable assessment of the effects of disorders of vision on driving, especially the visual fields. A practical driving assessment may be helpful in assessing the ability to process visual information (refer to Part A section [4.9 Practical driver assessments](#)).

10.3 MEDICAL STANDARDS FOR LICENSING

Requirements for unconditional and conditional licences are outlined in the following table for:

- visual acuity
- visual fields including monocular vision
- diplopia.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – VISION AND EYE DISORDERS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Visual acuity (refer to Figure 10) Refer to page 116 for assessment method.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person's uncorrected visual acuity in the better eye or with both eyes together is worse than 6/12. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review if the standard is met with corrective lenses.</p> <p>Some discretion is allowed in application of the standard by an optometrist/ophthalmologist. However, a driver licence will not be issued when visual acuity in the better eye is worse than 6/24.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person's uncorrected visual acuity is worse than 6/9 in the better eye, or • if the person's uncorrected visual acuity is worse than 6/18 in either eye. <p>A conditional licence may be considered by the driver licensing authority subject to periodic review if the standard is met with corrective lenses.</p> <p>If the person's vision is worse than 6/18 in the worse eye, a conditional licence may be considered by the driver licensing authority subject to periodic review, provided the visual acuity in the better eye is 6/9 (with or without corrective lenses) according to the treating optometrist/ophthalmologist. The driver licensing authority will take into account:</p> <ul style="list-style-type: none"> • the nature of the driving task • the nature of any underlying disorder • any other restriction advised by the optometrist or ophthalmologist.

MEDICAL STANDARDS FOR LICENSING – VISION AND EYE DISORDERS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Visual fields (including monocular vision)</p> <p>Refer to page 117 for assessment method.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the binocular visual field does not have a horizontal extent of at least 110 degrees within 10 degrees above and below the horizontal midline, or if there is any significant visual field loss (scotoma) within a central radius of 20 degrees of the foveal fixation or other scotoma likely to impede driving performance. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating optometrist or ophthalmologist.</p> <p>Monocular vision</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person is monocular. <p>A conditional licence may be considered by the driver licensing authority subject to two-yearly review, taking into account the nature of the driving task and information provided by the treating optometrist or ophthalmologist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the visual acuity in the remaining eye is 6/12 or better, with or without correction; and the visual field in the remaining eye has a horizontal extent of at least 110 degrees within 10 degrees above and below the horizontal midline. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has any visual field defect. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating optometrist or ophthalmologist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> the binocular visual field has an extent of at least 140 degrees within 10 degrees above and below the horizontal midline the person has no significant visual field loss (scotoma, hemianopia, quadrantanopia) that is likely to impede driving performance the visual field loss is static and unlikely to progress rapidly. <p>Monocular vision</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person is monocular. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating ophthalmologist or optometrist, and the comments made in 10.2.3 Visual fields under the sub-heading <i>Monocular vision (one-eyed driver)</i>.</p>

MEDICAL STANDARDS FOR LICENSING – VISION AND EYE DISORDERS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Diplopia	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person experiences any diplopia (other than physiological diplopia) when fixating objects within the central 20 degrees of the primary direction of gaze. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account the nature of the driving task and information provided by the treating optometrist or ophthalmologist as to whether the following criteria are met:</p> <ul style="list-style-type: none"> • the condition is managed satisfactorily with corrective lenses or an occluder; and • the person meets other criteria as per this section, including visual fields. <p>The following licence condition may apply if corrective lenses or an occluder prevents the occurrence of diplopia:</p> <p>Corrective lenses or an occluder must be worn while driving.</p>	<p>A person is not fit to hold an unconditional licence or a conditional licence:</p> <ul style="list-style-type: none"> • if the person experiences any diplopia (other than physiological diplopia) when fixating objects within the central 20 degrees of the primary direction of gaze.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use

of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive, for example, hearing and visual impairment (refer to Part A section [4.5 Multiple conditions and age-related change](#)).

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Wood J, Aging, driving and vision. *Clin Exp Optom*, 2002; 85:214–220.

Visual acuity

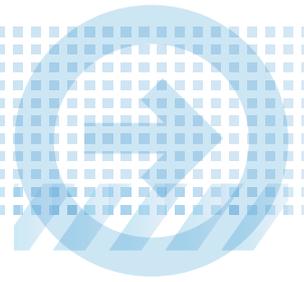
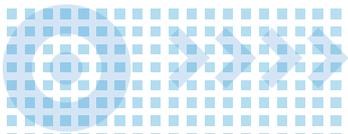
3. Hills BL, Burg A, *A reanalysis of California driver vision data: general findings*. Crowthorne, Berkshire, Transport and Road Research Laboratories, 1977.

Visual fields

4. Bowers A, Peli E, Elgin J, McGwin G, Owsley C, On-road driving with moderate visual field loss. *Optom Vis Sci*, 2005; 82:657–667.
5. Wood JM, McGwin G Jr, Elgin J, Vaphiades MS, Braswell RA, DeCarlo DK, Kline LB, Meek GC, Searcey K, Owsley C, On-road driving performance by people with hemianopia and quadrantanopia. *Invest Ophthalmol Vis Sci*, 2009; 50:577–585.
6. McKnight AJ, Shinar D and Hilburn B, The visual and driving performance of monocular and binocular heavy-duty truck drivers. *Accid Anal Prev*, 1991; 23:225–237.

PART C: APPENDICES





Appendix 1: Regulatory requirements for driver testing (as at July 2011)

Drivers in most states and territories are required to make a medical self-declaration in relation to their fitness to drive at licence application and renewal. The information obtained may result in a requirement for medical assessment or refusal of the application. In addition, each state and territory has specific requirements for medical examinations or road testing, depending on the driver's age or the type of vehicle being driven. The following table summarises these requirements at the date of publication.

Note: All review requirements may be amended on medical advice or on self-declaration or at the request of the licensing authority. This information is current as of July 2011. Refer to your state or territory driver licensing authority for current requirements (see [Appendix 8: Driver licensing authority contacts](#)).

Commercial vehicle drivers accredited under Basic Fatigue Management (BFM) and Advanced Fatigue Management (AFM) have additional medical assessment requirements. Under these schemes, medical examinations are to be conducted, as a minimum, once every three years for drivers aged 49 or under, and yearly for drivers aged 50 or over and must assess sleep disorders. Note: Not all states participate in these fatigue management schemes (currently Australian Capital Territory, Northern Territory and Western Australia do not participate).

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
Australian Capital Territory	PRIVATE VEHICLE DRIVERS		
	Vision test for all drivers on initial licence; on renewal at ages 50, 60, 65, 70 and 75 and thereafter annually.	Medical assessment for all licence classes at 75 years and annually thereafter.	No prescribed period or age.
	COMMERCIAL VEHICLE DRIVERS		
	Heavy vehicle drivers (class MR and above): vision test on initial application; when upgrading to medium rigid (class MR); on renewal at ages 50, 60, 65, 70, 75 and thereafter annually.	Heavy vehicle drivers (class MR and above): medical assessment at 75 years and annually thereafter.	Heavy vehicle drivers (class MR and above): road test on initial application; when upgrading to MR class or above. No prescribed period or age thereafter, unless declared or reported.
	Public passenger vehicle drivers (H, M, O, T, W): vision test on initial application and annually thereafter.	Public passenger vehicle drivers (H, M, O, T, W): medical assessment on initial application and annually thereafter.	Public passenger vehicle drivers (H, M, O, T, W): road test on application at 70 and annually thereafter.
	Dangerous goods vehicle drivers: vision test on initial application, then every five years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every five years.	Dangerous goods vehicle drivers: no special requirements.
Driving instructors: vision test on initial application and annually thereafter.	Driving instructors: medical assessment on initial application and annually thereafter.	Driving instructors: no prescribed period or age after initial test for licensing.	

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
New South Wales	PRIVATE VEHICLE DRIVERS		
	Vision test for all drivers on initial application. All car and rider licence holders under 45 years of age have an eyesight test every 10 years. All car and rider licence holders 45 years of age or older have an eyesight test every five years.	Medical assessment for all licence classes at 75 years of age and annually thereafter.	Road test required every two years for all car drivers (class C) and drivers of motorcycles (class R) from 85 years of age. Annual driving test for heavy vehicle drivers with a light rigid (LR) to heavy combination (HC) from 80 years of age. Annual driving test for multiple combination (MC) from 70 years of age. A road test may be required as a result of a doctor's/police recommendations.
	COMMERCIAL VEHICLE DRIVERS		
	Vision test for all drivers on initial application and on each renewal and replacement.	Medical assessment for all licence classes at 75 years of age and annually thereafter.	Annual road test required for heavy vehicle drivers (LR, MR, HR and HC) from 80 years of age.
	Multiple combination vehicle (road train) drivers (class MC): vision test with medical assessment on initial application and then at age 21 and every 10 years up to age 40, then every five years until age 60, then every two years until age 70; annually thereafter.	Multiple combination vehicle (road train) drivers (class MC): medical assessment on initial application then at age 21 and every 10 years up to age 40, then every five years until age 60, then every two years until age 70; annually thereafter.	Multiple combination vehicle (road train) drivers (class MC): road test at 70 years and annually thereafter.
	Public passenger vehicle drivers (buses): vision test on initial application and then every three years until the age of 60 years; annually thereafter.	Public passenger vehicle drivers (buses): medical assessment on initial application and then every three years until the age of 60 years; annually thereafter.	Public passenger vehicle drivers (buses): road test at 80 years.
	Dangerous goods vehicle drivers: vision test on initial application, then every three years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every three years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on initial application. Thereafter in line with driver licence class held.	Driving instructors: medical assessment on initial application. Thereafter in line with driver licence class held.	Driving instructors: on initial application. Thereafter in line with driver licence class held.

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
Northern Territory	PRIVATE VEHICLE DRIVERS		
	Vision test for all drivers on initial application, then five-yearly.	Medical assessment only when condition notified by a health professional or driver.	Road test only when recommend by a health professional.
	COMMERCIAL VEHICLE DRIVERS		
	Vision test on initial application, then five-yearly.	Medical assessment only when a condition is reported by a health professional or driver.	Only if recommended by a health professional.
	Public passenger vehicle drivers: as above	Public passenger vehicle drivers: medical assessment on initial application, then five-yearly or sooner if a condition is reported.	Public passenger vehicle drivers: road test only if recommend by a health professional.
	Dangerous goods vehicle drivers: vision test on initial application, then every five years.	Dangerous goods vehicle drivers: medical assessment on initial application, then five yearly thereafter.	Dangerous goods vehicle drivers: no specific requirements.
Driving instructors: as above	Driving instructors: medical assessment on initial application, then five-yearly or sooner if a condition is reported.	Driving instructors: road test only if recommend by a health professional.	
Queensland	PRIVATE VEHICLE DRIVERS		
	A vision test, performed by a health professional, and a medical certificate verifying the outcome of the test is required if the applicant declares a vision or eye disorder or if requested by the chief executive. Vision tests are not generally performed by departmental staff.	A person must obtain, carry and drive in accordance with a current medical certificate if: <ul style="list-style-type: none"> - they have a mental or physical incapacity that may affect their ability to drive safely, or - they are 75 years of age or older. Currency of the medical certificate is determined by the health professional.	Road test required on application.
	COMMERCIAL VEHICLE DRIVERS		
Heavy vehicle drivers: a vision test, performed by a health professional, and a medical certificate verifying the outcome of the test is required if the applicant declares a vision or eye disorder or if requested by the chief executive. Vision tests are not generally performed by departmental staff.	Heavy vehicle drivers: a person must obtain, carry and drive in accordance with a current medical certificate if: <ul style="list-style-type: none"> - they have a mental or physical incapacity that may affect their ability to drive safely, or - they are 75 years of age or older. Currency of the medical certificate is determined by the health professional.	Heavy vehicle drivers: road test required on application.	

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
Queensland (cont'd)	COMMERCIAL VEHICLE DRIVERS (CONT'D)		
	<p>Public passenger vehicle drivers: a vision test, performed by a health professional, is required every five years (as part of the prescribed medical assessment), or more frequently if required by a health professional.</p> <p>Vision tests are not generally performed by departmental staff.</p>	<p>Public passenger vehicle drivers: a medical assessment is required every five years, or more frequently if required by a health professional.</p> <p>A driver 75 years of age or older is also required to obtain, carry and drive in accordance with a current medical certificate.</p>	<p>Public passenger vehicle drivers: no prescribed period or age, unless declared or reported.</p>
	<p>Dangerous goods vehicle drivers: a vision test, performed by a health professional, is required on initial application, then every three years (as part of the prescribed medical assessment), or more frequently if required by a health professional.</p> <p>Vision tests are not generally performed by departmental staff.</p>	<p>Dangerous goods vehicle drivers: a medical assessment is required on initial application, then every three years, or more frequently if required by a health professional.</p> <p>A driver 75 years of age or older is also required to obtain, carry and drive in accordance with a current medical certificate.</p>	<p>Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.</p>
	<p>Driving instructors: no vision test required unless the applicant declares a vision or eye disorder or if requested by the chief executive.</p> <p>Vision tests are not generally performed by departmental staff.</p>	<p>Driving instructors: no medical assessment required unless the person has a mental or physical incapacity that may affect their ability to drive safely.</p> <p>A driver 75 years of age or older is required to obtain, carry and drive in accordance with a current medical certificate.</p>	<p>Driving instructors: no prescribed period or age, unless declared or reported.</p>
South Australia	PRIVATE VEHICLE DRIVERS		
	Vision test yearly from 70 years of age or if declared or reported.	Medical assessment required yearly from 70 years of age for all licence holders.	Road test required annually from age 85 for licence classes other than C.
	COMMERCIAL VEHICLE DRIVERS		
<p>Heavy vehicle drivers: vision test annually from 70 years of age or with prescribed medical examinations.</p>	<p>Heavy vehicle drivers: medical assessment annually from 70 years of age for all licence holders unless prescribed otherwise (refer below).</p> <p>Multiple combination vehicle drivers (class MC) operating south of Port Augusta: medical assessment every three years up to 49 years of age, then annually.</p>	<p>Heavy vehicle drivers: road test annually from age 85.</p>	

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
South Australia (cont'd)	COMMERCIAL VEHICLE DRIVERS (CONT'D)		
	Public passenger vehicle drivers: vision test with medical assessment every five years up to age 70 years, then annually thereafter.	Public passenger vehicle drivers: medical assessment every five years up to age 70 years, then annually thereafter.	Public passenger vehicle drivers: no prescribed period or age, unless declared or reported.
	Dangerous goods vehicle drivers: vision test on initial application, then every three years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every three years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on licence application and renewal.	Driving instructors: medical assessment on licence application and renewal.	Driving instructors: no prescribed period or age, unless declared or reported.
Tasmania	PRIVATE VEHICLE DRIVERS		
	Vision test required on initial application then yearly from 75 years of age (as part of required medical assessment).	Medical assessment required yearly from 75 years of age for all licence holders.	Road test required yearly from 85 years of age.
	COMMERCIAL VEHICLE DRIVERS		
	Multiple combination vehicle drivers (class MC): vision test required on initial application (as part of medical assessment).	Multiple combination vehicle drivers (class MC): medical assessment on initial application.	Heavy vehicle drivers: road test or training course on initial application; no tests/courses are required thereafter.
	Public passenger vehicle drivers: vision test on initial application and then as part of required medical assessments (refer to next column).	Public passenger vehicle drivers (Ancillary Certificate Public Passenger Vehicles): medical assessment on initial application, then every three years up to age 65, then annually. (ACPPVs are further categorised: taxi or other).	Public passenger vehicle drivers (ACPPV): road test at age 65, 70, and then annually after 75 years.
	Dangerous goods vehicle drivers: vision test on initial application, then every three years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every three years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on initial application and then as part of required medical assessments (refer to next column).	Driving instructors: medical assessment on initial application, then every three years until age 65 years; then yearly.	Driving instructors: training course on initial application.

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
Victoria	PRIVATE VEHICLE DRIVERS		
	Vision test required on initial application and subsequently if declared or reported.	No prescribed period or age but may occur if a concern is declared or reported.	No prescribed period or age but may occur if a concern is declared or reported.
	COMMERCIAL VEHICLE DRIVERS		
	Heavy vehicle drivers: vision test on initial application. Otherwise no specified period, unless declared or reported.	Heavy vehicle driver: no prescribed period or age, unless declared or reported.	Heavy vehicle drivers: no prescribed period or age, unless declared or reported.
	Public passenger vehicle drivers (taxi, bus): vision test with medical assessment every three years unless medical practitioner advises shorter review periods.	Public passenger vehicle drivers (taxi, bus): medical assessment every three years unless medical practitioner advises shorter review periods.	Public passenger vehicle drivers (taxi, bus): no prescribed period or age, unless declared or reported.
	Dangerous goods vehicle drivers: vision test on initial application, then every three years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every three years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
Driving instructors: vision test on licence application then every three years unless a medical practitioner advises shorter review periods.	Driving instructors: medical assessment on application then every three years unless a medical practitioner advises shorter review periods.	Driving instructors: no prescribed period or age, unless declared or reported.	
Western Australia	PRIVATE VEHICLE DRIVERS		
	All drivers on application, then at 75, 78 and annually from 80 years of age.	At 75, 78 and annually from 80 years of age, unless a medical condition requires earlier assessment.	At 85 years of age, then annually.
	COMMERCIAL VEHICLE DRIVERS		
	Heavy vehicle drivers (class MR and above): vision test on initial application and when applying for an additional class, then at 75, 78 and annually from 80 years of age.	Heavy vehicle drivers (class MR and above): medical assessment at 75, 78 and annually from 80 years of age.	Heavy vehicle drivers (class MR and above): road test at 85 years of age, then annually.
Public passenger vehicle drivers: vision test on initial application and then when applying for an additional class, then every five years until age 45, then every two years until age 65, then annually from age 65.	Public passenger vehicle drivers: medical assessment on initial application, then every five years until age 45 years, then every two years until age 65, then annually from age 65.	Public passenger vehicle drivers: road test at age 65, 70, and then annually.	

STATE/ TERRITORY	VISION TEST	MEDICAL ASSESSMENT	ROAD TEST
Western Australia (cont'd)	COMMERCIAL VEHICLE DRIVERS (CONT'D)		
	Dangerous goods vehicle drivers: vision test on initial application, then every three years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every three years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on initial application and when applying for an additional class, then every five years until age 45 years, then every two years until age 65 years, then annually from age 65.	Driving instructors: medical assessment on initial application, then as per public passengers vehicle drivers (every five years until age 45 years), then every two years until age 65 years, then annually from age 65.	Driving instructors: practical driving and instructional technique assessment every three years unless exempted.

Appendix 2: Forms

APPENDIX 2.1: MEDICAL REPORT FORM

The driver licensing authority has a legal responsibility to ensure all drivers have the appropriate skills and ability, and are medically fit to hold a driver licence. To meet this responsibility, legislation gives the driver licensing authority the authority to ask any motor vehicle licence holder or applicant to provide medical evidence of their suitability to drive and/or to undergo a driver assessment.

This is facilitated by a medical report. The relevant driver licensing authority provides the medical report form to the driver, who will present it to the health professional for completion at the time of the examination. This form is the key communication between health professionals and driver licensing authorities. It should be completed with details of any medical criteria not met as well as details of recommended conditions and monitoring requirements for a conditional licence. Medical information that is not relevant to the patient's fitness to drive should not be included on this form for privacy reasons.

The forms used by each state or territory vary, however, they will generally include the information outlined below. For further information contact your local driver licensing authority (refer to [Appendix 8: Driver licensing authority contacts](#)).

INFORMATION REQUIRED IN A MEDICAL REPORT FORM

Driver details:

- name and contact details
- consent for the driver licensing authority to contact the health professional for further information relevant to the person's fitness to drive (inclusion and wording will depend on jurisdiction)
- licence details (to guide the health professional in selecting the appropriate standard for assessment, i.e. private or commercial).

Health professional details:

- date of examination
- health professional's name and contact details
- signature of examining health professional.

Assessment of fitness to drive – the health professional records the following:

- whether they were familiar with the driver's medical history prior to the examination
- which standards (private/commercial) were applied in the examination
- whether the driver meets/does not meet criteria for an unconditional licence (noting criteria that are not met and other relevant medical details)
- whether the driver's meets/does not meet criteria for a conditional licence, noting:
 - criteria that are not met and other relevant medical details
 - proposed restrictions to licence (if appropriate)
 - suggestions for management and periodic review interval (conditional licence)
- whether the driver's requires additional assessment including:
 - specialist assessment (specify type)
 - practical driving assessment (specify type)
 - occupational therapist assessment
- whether the driver's condition has now improved so as to meet criteria for a conditional or unconditional licence noting:
 - criteria previously not met
 - response to treatment and prognosis
 - duration of improvement
 - other relevant information including consideration of the driving task.

Other information contained within the form:

- legal information
- instructions to:
 - the driver/applicant
 - the health professional
- information about:
 - occupational therapy driver assessments
 - driver licensing authority driver assessments.

APPENDIX 2.2: MEDICAL CONDITION NOTIFICATION FORM

If, in the course of treatment, a patient's condition is found to affect their ability to drive safely, the health professional should, in the first instance, encourage the patient to report their condition to the driver licensing authority. A standard form, ***Medical condition notification form***, has been produced to facilitate this process. The health professional completes the form, explains the circumstances to the patient and asks the patient to forward the form to the driver licensing authority. Most driver licensing authorities will also accept a letter from the treating practitioner or specialist. The letter should, however, include the details laid out in the form to enable the driver licensing authority to make a decision.

If necessary, the health professional may feel obliged to make a report directly to the driver licensing authority using a copy of this form (refer to pages 8, 27). Even when making a report directly to the driver licensing authority, the health professional should inform the patient that they are doing so.

MEDICAL CONDITION NOTIFICATION FORM

To: [Insert the address of your local driver licensing authority – refer to [Appendix 8: Driver licensing authority contacts](#)]

Patient details [please print]:

Mr/Mrs/Ms: _____ Surname: _____

Given names: _____

Full address: _____

Date of birth: / / Licence no.: _____

ASSESSMENT OF FITNESS TO DRIVE – REPORT

I have examined the patient (whose name, address and date of birth are set out above) in accordance with the relevant National Medical Standards (private or commercial) as set out in *Assessing Fitness to Drive, 2012* .

Private vehicle standards Commercial vehicle standards

I have known/treated the patient for _____ years.

According to this assessment, please select **ONE** of the **THREE** options below and provide supporting information:

Option 1

In my opinion, the person who is the subject of this report **does not meet** the medical criteria to hold an **unconditional licence** (as outlined in *Assessing Fitness to Drive*) but may meet the medical criteria to hold a **conditional licence**.

Please describe the nature of the condition and the medical criteria that are not met

Please provide information to support the consideration of a **conditional licence** including evidence of the medical criteria met and consideration of the nature of the driving task

Please describe any recommended **licence conditions or restrictions** relating to the driver’s medical condition including requirements for periodic review (e.g annual review), vehicle modifications, corrective lenses or restricted daytime driving.etc

Further comments on medical condition/s affecting safe driving appear attached

OR

Option 2

In my opinion, the person who is the subject of this report **does not meet** the medical criteria to hold an **unconditional or conditional licence** as outlined in *Assessing Fitness to Drive 2012*.

Please describe the nature of the condition and the medical criteria not met, including a consideration of the driving task

Further comments on medical condition/s affecting safe driving appear attached

OR

Option 3

Reinstatement of licence:

In my opinion the medical condition of the person subject of this report has improved so as to meet the criteria for a **conditional or unconditional licence**.

Please provide details of: the criteria previously not met; the response to treatment and prognosis; duration of improvement; and other relevant information including consideration of the driving task).

Further comments on medical condition/s affecting safe driving appear attached

Health professional details [please print]:

Reporting professional's name:

Professional's address:

Telephone: ()

Fax: ()

Date of examination: / /

Signature:

Appendix 3: Legislation relating to reporting

APPENDIX 3.1: LEGISLATION RELATING TO REPORTING BY DRIVERS (AS AT JULY 2011)

JURISDICTION	LEGISLATION	DISCRETIONARY REPORTING
Australian Capital Territory	<i>Road Transport (Driver Licensing) Regulation 2000, 77 (2), (3)</i>	<p>If a person who is the holder of a driver licence suffers any permanent or long-term illness, injury or incapacity that may impair his or her ability to drive safely, the person must tell the road transport authority as soon as practicable (but within 7 days). Maximum penalty: 20 penalty units.</p> <p>It is a defence to the prosecution of a person for an offence against this regulation if the person establishes –</p> <ul style="list-style-type: none"> (a) that the person was unaware that his or her ability to drive safely had been impaired; or (b) that the person had another reasonable excuse for contravening the subregulation.
New South Wales	<i>Road Transport (Driver Licensing) Regulation 2008, c. 117 (5)</i>	The holder of a driver licence must, as soon as practicable, notify the Authority of any permanent or long-term injury or illness that may impair his or her ability to drive safely.
Northern Territory	<i>Motor Vehicles Act 11(3)</i>	If a person who is licensed to drive a motor vehicle is suffering from a physical or mental incapacity that may affect his or her ability to drive a motor vehicle with safety to the public, the person, or his or her personal representative, must notify the Registrar of the nature of the incapacity or unfitness.
Queensland	<p><i>Transport Operations (Road Use Management – Driver Licensing) Regulation 1999, 14J, 14K</i></p> <p><i>Transport Operations (Passenger Transport) Regulation 2005, 40A</i></p>	<p>A person is not eligible for the grant or renewal of a Queensland driver licence if the chief executive reasonably believes the person has a mental or physical incapacity that is likely to adversely affect the person's ability to drive safely.</p> <p>However, the person is eligible for the grant or renewal of a Queensland driver licence if the chief executive reasonably believes that, by stating conditions on the licence, the person's incapacity is not likely to adversely affect the person's ability to drive safely.</p> <p>The holder of a Queensland driver licence must give notice to the chief executive if they develop any permanent or long-term mental or physical incapacity, or there is an increase in, or other aggravation of, a mental or physical incapacity that is likely to affect the holders' ability to drive safely.</p> <p>More specifically, there is a standard for drivers of public passenger vehicles:</p> <p>An authorised driver must –</p> <ul style="list-style-type: none"> (a) notify the chief executive if there is a change in the driver's medical condition that makes the driver continuously unfit to safely operate a motor vehicle for more than 1 month; and (b) within 5 years after the issue of the last medical certificate given to the chief executive, give the chief executive a fresh medical certificate.
South Australia	<i>Motor Vehicles Act 1959, 98AAF</i>	The holder of a licence or learner's permit who, during the term of the licence or permit, suffers any illness or injury that may impair his or her competence to drive a motor vehicle without danger to the public must, within a reasonable time after the occurrence of the illness or injury, notify the Registrar in writing of that fact. Maximum penalty: \$750

JURISDICTION	LEGISLATION	DISCRETIONARY REPORTING
Tasmania	<i>Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010</i> , 36(6), (7)	<p>The holder of a driver licence must, as soon as practicable, notify the Registrar of:</p> <ul style="list-style-type: none"> (a) any permanent or long-term injury or illness that may impair his or her ability to drive safely; or (b) any deterioration of physical or mental condition (including a deterioration of eyesight) that may impair his or her ability to drive safely; or (c) any other factor related to physical or mental health that may impair his or her ability to drive safely. <p>Penalty: Fine not exceeding 10 penalty units. (\$1,200)</p> <p>Unless the Registrar requires written notification, the notification need not be in writing.</p>
Victoria	<i>Road Safety (Drivers) Regulations 2009</i> , 67(2)	<p>The holder of a driver licence or permit or any person exempted from holding a driver licence or permit under section 18(1)(a) of the Act must, as soon as practicable, notify the Corporation of any permanent or long-term injury or illness that may impair his or her ability to drive safely.</p>
Western Australia	<i>Road Traffic (Authorisation To Drive) Regulations 2008</i> , s. 65	<p>Duty to reveal things that might impair ability</p> <ul style="list-style-type: none"> (1) In this regulation — <ul style="list-style-type: none"> driving impairment of the person means any permanent or long-term mental or physical condition (which may include a dependence on drugs or alcohol) that is likely to, or treatment for which is likely to, impair the person's ability to control a motor vehicle either — <ul style="list-style-type: none"> (a) in all circumstances; or (b) except under certain conditions or subject to certain limitations; or (c) unless measures are taken to overcome the impairment. (2) A person applying for the grant of a learner's permit or a driver's licence, other than by way of renewal, is required, when applying, to inform the Director General of any driving impairment of the person. (3) If a person who holds a learner's permit or a driver's licence becomes affected by any driving impairment of the person of which the person has not already informed the Director General, the person is required, as soon as practicable, to inform the Director General in writing of the impairment. (4) If a person who has informed the Director General of a driving impairment of the person — <ul style="list-style-type: none"> (a) becomes affected by the impairment to a degree that is substantially different from that of which the Director General was most recently informed; or (b) informs the Director General that the person has ceased to be affected by the impairment and subsequently becomes again affected by it, the person is required, as soon as practicable, to inform the Director General in writing of the development. (5) Subregulation (4)(a) does not apply if the only difference is a reduction in the extent of the impairment. <p>Penalty: 10 PU. Modified penalty: 1 PU.</p>

APPENDIX 3.2: LEGISLATION RELATING TO REPORTING BY HEALTH PROFESSIONALS (AS AT NOVEMBER 2011)

LEGISLATION/ JURISDICTION	APPLIES TO	DISCRETIONARY REPORTING	MANDATORY REPORTING
Australian Capital Territory <i>Road Transport (General) Act 1999</i> , s. 230 (3) & (4) <i>Road Transport (Driver Licensing) Act 1999</i> , s. 28 <i>Road Transport (Driver Licensing) Regulation 2000</i> , rr. 15 and 78	<p>An individual carrying out a certain test or examination (i.e. medical practitioners, optometrists, occupational therapists, physiotherapists).</p> <p>An individual.</p>	<p>An individual is not civilly or criminally liable for carrying out a test or examination in accordance with the regulations made under the <i>Road Transport (Driver Licensing) Act 1999</i> and expressing to the road transport authority, in good faith, an opinion formed because of having carried out the test or examination.</p> <p>An individual is not civilly or criminally liable for reporting to the road transport authority, in good faith, information that discloses or suggests that someone else is or may be unfit to drive or that it may be dangerous to allow someone else to hold, to be issued or to have renewed, a driver licence or a variation of a driver licence.</p>	<p>There is no mandatory reporting requirement for practitioners.</p>
New South Wales <i>Road Transport (General) Act 2005</i> , s. 243 (3) & (4) <i>Road Transport (Driver Licensing) Act 1998</i> , s. 20 <i>Road Transport (Driver Licensing) Regulation 2008</i> , c. 50	<p>An individual carrying out a certain test or examination (i.e. medical practitioners, optometrists, occupational therapists, physiotherapists).</p> <p>An individual.</p>	<p>An individual does not incur civil or criminal liability for carrying out a test or examination in accordance with the regulations made under the <i>Road Transport (Driver Licensing) Act 1998</i> and expressing to the Authority in good faith an opinion formed as a result of having carried out the test or examination.</p> <p>An individual does not incur civil or criminal liability for reporting to the Authority, in good faith, information that discloses or suggests that another person is or may be unfit to drive or that it may be dangerous to allow another person to hold, to be issued or to have renewed, a driver licence or a variation of a driver licence.</p>	<p>There is no mandatory reporting requirement for practitioners.</p>

LEGISLATION/ JURISDICTION	APPLIES TO	DISCRETIONARY REPORTING	MANDATORY REPORTING
Northern Territory <i>Motor Vehicles Act 1999</i> , s. 11	<p>A registered person means a medical practitioner, an optometrist, an occupational therapist or a physiotherapist who is registered under the applicable Acts.</p>	<p>Not covered in legislation.</p>	<p>If a registered person reasonably believes that a person they have examined is licensed to drive a motor vehicle and is physically or mentally incapable of driving a motor vehicle with safety to the public or is physically or mentally unfit to be licensed, the registered person must notify the Registrar in writing of the person's name and address and the nature of the incapacity or unfitness.</p> <p>No express indemnity is provided under s. 11.</p>
Queensland <i>Transport Operations (Road Use Management) Act 1995</i> , s. 142	<p>A health professional means a doctor, an occupational therapist, an optometrist or a physiotherapist registered under the applicable Acts.</p>	<p>A health professional is not liable, civilly or under an administrative process, for giving information in good faith to the chief executive about a person's medical fitness to hold, or to continue to hold, a Queensland driver licence.</p> <p>Without limiting this, in a civil proceeding for defamation, a health professional has a defence of absolute privilege for publishing the information.</p> <p>Additionally, if the health professional would otherwise be required to maintain confidentiality about the information under an Act, oath, rule of law or practice, the health professional does not contravene the Act, oath, rule of law or practice by disclosing the information and is not liable to disciplinary action for disclosing the information.</p>	<p>There is no mandatory reporting requirement for practitioners.</p>

LEGISLATION/ JURISDICTION	APPLIES TO	DISCRETIONARY REPORTING	MANDATORY REPORTING
South Australia <i>Motor Vehicles Act 1959</i> , s. 148	A legally qualified medical practitioner, a registered optician or a registered physiotherapist.	Not covered in legislation.	<p>Where a legally qualified medical practitioner, a registered optician, or a registered physiotherapist has reasonable cause to believe that a person whom they have examined holds a driver licence or a learner permit and that person is suffering from a physical or mental illness, disability or deficiency such that, if the person drove a motor vehicle, they would be likely to endanger the public, then the medical practitioner, registered optician or registered physiotherapist is under a duty to inform the Registrar in writing of the name and address of that person, and of the nature of the illness, disability or deficiency from which the person is believed to be suffering.</p> <p>Where a medical practitioner, registered optician or registered physiotherapist furnishes such information to the Registrar, they must notify the person to whom the information relates of that fact and of the nature of the information furnished.</p> <p>No civil or criminal liability is incurred in carrying out the duty imposed.</p>
Tasmania <i>Vehicle and Traffic Act 1999</i> , ss. 63 (2) and 56 <i>Vehicle and Traffic Act 1999</i> , s. 63 (1)	A person.	<p>A person incurs no civil or criminal liability for reporting to the Registrar, in good faith, the results of a test or examination carried out under the Act or an opinion formed as a result of conducting such a test or examination.</p> <p>Section 56 deals with tests and examinations of drivers.</p> <p>A person incurs no civil or criminal liability for reporting to the Registrar, in good faith, that another person may be unfit to drive a motor vehicle.</p>	There is no mandatory reporting requirement for practitioners.

LEGISLATION/ JURISDICTION	APPLIES TO	DISCRETIONARY REPORTING	MANDATORY REPORTING
Victoria <i>Road Safety Act 1986</i> , s. 27 (4) <i>Road Safety Act 1986</i> , s. 27 (5)	<p>A person carrying out a certain test (i.e. medical practitioners, optometrists, occupational therapists, physiotherapists).</p> <p>A person.</p>	<p>No action may be taken against a person who carries out a test under section 27 (that is, a test of health or competence etc. to find out if a person is unfit to drive or if it is dangerous for that person to drive) and who expresses to the corporation an opinion formed by that person as a result of the test.</p> <p>No action may be taken against a person who, in good faith, reports to the corporation any information that discloses or suggests that a person is unfit to drive or that it may be dangerous to allow that person to hold or to be granted a driver licence, a driver licence variation or a permit.</p>	<p>There is no mandatory reporting requirement for practitioners.</p>
Western Australia <i>Road Traffic Act 1974</i> , s.101A	<p>A person.</p>	<p>People expressing an opinion to the Director General formed as a result of carrying out a test or examination under the provisions of this Act are protected from liability when acting in good faith.</p> <p>An action does not lie in tort against a person who reports to the Director General in good faith information that discloses or suggests a person may be unfit to drive or it may be dangerous to allow another person to hold a driver licence or learner permit, to grant a driver licence or learner permit to another person or to vary or not to vary, another person's driver licence or learner permit.</p>	<p>There is no mandatory reporting requirement for practitioners.</p>
<p>* Where changes are anticipated, health professionals are advised to check with the driver licensing authority (refer to Appendix 8: Driver licensing authority contacts).</p>			

Appendix 4: Drivers' legal BAC limits

(as at January 2012)

SUMMARY OF STATE AND TERRITORY LAWS ON BAC AND DRIVING		
STATE OR TERRITORY	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS	DRIVERS OF TRUCKS, TAXIS, BUSES AND PRIVATE HIRE CARS
Australian Capital Territory	The legal BAC limit applying to learner, provisional and probationary drivers, drivers classed as 'special drivers' and restricted licence holders is below zero BAC . The legal limit for drivers of cars, trucks and buses (excluding public vehicles) up to 15 tonnes GVM and riders of motorcycles who hold a full licence (gold) is below .05 BAC .	The legal BAC limit applying to drivers of heavy motor vehicles exceeding 15 tonnes GVM, dangerous goods vehicles, public vehicles (taxis, buses and private hire cars) and Commonwealth chauffeur cars is below zero BAC .
New South Wales	A zero BAC limit applies to all learner licence holders, provisional P1 licence holders and provisional P2 licence holders. Drivers not listed elsewhere .05 BAC .	Drivers of trucks over 13.9 tonnes GVM, all drivers of public passenger vehicles within the meaning of the <i>Passenger Transport Act 1990</i> and drivers of any vehicles carrying dangerous goods or radioactive substances .02 BAC .
Northern Territory	Unlicensed and learner drivers, provisional licence holders, drivers under 25 with less than three years experience, zero BAC . Drivers not listed elsewhere .05 BAC .	Drivers of vehicles over 15 tonnes GVM, public passenger vehicles, dangerous goods vehicles, vehicles with people unrestrained in an open load space, vehicles carrying more than 12 people, driving instructors while instructing, licensed drivers under the age of 25 who have been licensed for less than three years, zero BAC . Drivers not listed elsewhere .05 BAC .
Queensland	Learner licence holders, probationary licence holders, provisional licence holders, class RE licence holders for the first year of holding a motorbike licence, restricted licence holders, licence holders subject to a 79E order, driver trainers while giving driver training, and unlicensed drivers, zero BAC . Drivers not listed elsewhere .05 BAC .	Drivers of trucks, buses, articulated motor vehicles, B-doubles, road trains, vehicles carrying placard load of dangerous goods, taxis or limousines, tow trucks and pilot or escort vehicles, zero BAC . All other drivers, .05 BAC .
South Australia	Learner permit holders and provisional licence holders zero BAC . Drivers not listed elsewhere .05 BAC . Note that unlicensed drivers are also subject to zero BAC .	Drivers of vehicles over 15 tonnes GVM, prime movers with unladen mass < 4 tonnes, taxis, buses, licensed chauffeured vehicles, vehicles carrying dangerous goods, zero BAC .
Tasmania	Unlicensed and learner drivers, provisional licence holders, people convicted of causing death driving a motor vehicle, people with three or more drink driving convictions in 10 years, zero BAC .	Drivers of: public vehicles including buses (more than 11 passengers) and taxis, vehicles exceeding 4.5 tonnes GVM, zero BAC .
Victoria	Learner drivers, professional driving instructors, probationary drivers, drivers with Z condition on their licence and motorcyclists in the first 12 months of being licensed zero BAC . Drivers not listed elsewhere below .05 BAC .	Drivers of vehicles over 15 tonnes GVM, all taxi and bus drivers, and some emergency vehicle drivers zero BAC . Drivers not listed elsewhere below .05 BAC .

SUMMARY OF STATE AND TERRITORY LAWS ON BAC AND DRIVING		
STATE OR TERRITORY	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS	DRIVERS OF TRUCKS, TAXIS, BUSES AND PRIVATE HIRE CARS
Western Australia	<p>Novice drivers (licence held less than two years): zero BAC</p> <p>Not a novice driver: 0.05 BAC</p> <p>Except :</p> <ul style="list-style-type: none"> - provisional licence holders (not novice drivers) - extraordinary licence holders - drivers who have been convicted of a prescribed alcohol-related offence after 1 January 1998 must not drive with a blood alcohol concentration equal to or exceeding .02 BAC for a period of three years. 	<p>Novice drivers (licence held less than two years): zero BAC</p> <p>Not a novice driver: 0.05 BAC</p> <p>Except :</p> <ul style="list-style-type: none"> - provisional licence holders (not novice drivers) - extraordinary licence holders - drivers who have been convicted of a prescribed alcohol-related offence after 1 January 1998 must not drive with a blood alcohol concentration equal to or exceeding .02 BAC for a period of three years.

Appendix 5: Disabled car parking/taxi services (as at September 2011)

People suffering substantial levels of disability may be eligible for disabled parking permits and discount taxi fares. The practitioner should direct enquiries to the contacts shown below. Taxi subsidies may be available only to those physically unable to use public transport.

CONTACTS FOR TRANSPORT ASSISTANCE FOR THE DISABLED		
STATE OR TERRITORY	DISABLED PARKING PERMITS	TAXI SERVICES
Australian Capital Territory	Road User Services PO Box 582 Dickson ACT 2602 (02) 6207 7000	ACT Taxi Subsidy Scheme GPO Box 158 Canberra ACT 2601 (02) 6207 1108
New South Wales	RMS Contact Centre PO Box 333 HRMC NSW 2310 13 22 13	Taxi Transport Subsidy Scheme Locked Bag 5067 Parramatta NSW 2124 1800 623 724
Northern Territory	Contact your local council.	Commercial Passenger Vehicles Branch Department of Lands and Planning GPO Box 2520 Darwin NT 0801 (08) 8924 7580
Queensland	Disabled Parking Department of Transport and Main Roads PO Box 673 Fortitude Valley QLD 4006 13 23 80 (press 4)	Public Transport Division Department of Transport and Main Roads PO Box 673 Fortitude Valley QLD 4006 1300 134 755
South Australia	Department for Transport, Energy and Infrastructure GPO Box 1533 Adelaide SA 5001 13 10 84	Public Transport Division Department for Transport, Energy and Infrastructure GPO Box 1533 Adelaide SA 5001 (08) 8204 8169
Tasmania	Transport Access Scheme Department of Infrastructure, Energy and Resources GPO Box 1242 Hobart TAS 7001 1300 851 225	Transport Access Scheme Department of Infrastructure, Energy and Resources GPO Box 1242 Hobart TAS 7001 (03) 6233 5193
Victoria	Contact your local council.	Victorian Taxi Directorate GPO Box 2797 Melbourne VIC 3001 1800 638 802
Western Australia	ACROD PO Box 1428 Osborne Park WA 6916 (08) 9242 5544	Taxi Users Subsidy Scheme Department of Transport GPO Box C102 Perth WA 6839 1300 660 147

Appendix 6: Seatbelt use

Relevance to driving task

The use of seatbelts is compulsory in Australia for drivers of all motor vehicles. This includes drivers of trucks and buses but excludes taxi drivers in New South Wales and Queensland. It has been reported that unrestrained occupants are over three times more likely to be killed in the event of a crash than those who wear seatbelts.

The granting of an exemption from the use of seatbelts places an individual's safety at considerable risk. **There are really no medical conditions for which a person should be unable to wear a seatbelt.**

Requests relating to seatbelt exemptions

Individuals may request a medical certificate recommending or granting exemption (depending on the state or territory); however, exemptions based upon most medical grounds are considered invalid. Health professionals are discouraged from providing letters to people stating that the use of a seatbelt is not required.

In conditions such as obesity, health professionals should advise the patient to have the seatbelt modified and an inertia seatbelt fitted. In conditions in which there are scars to the chest or abdomen (**i.e. post surgery/injury**), the patient should be advised about the use of padding to prevent any problems of seatbelt irritation.

It must be stressed that exemption due to any medical condition should be an extremely rare exception to the uniformity of a rule that enforces the legal obligation of a driver to wear a seatbelt if fit to drive.

Medical certificate regarding exemption

If a health professional recommends or grants (depending on state or territory law) an exemption, they must accept responsibility for granting the exemption. **In order to comply with the requirements of the driver licensing authority**, a certificate of exemption (or recommendation for exemption) should be issued in the following manner:

- The certificate must be dated and issued on the practitioner's letterhead (except in Queensland and Tasmania, refer below).
- The certificate must state the name, address, sex and date of birth of the person for whom the exemption is requested.
- The certificate must state the reason for which the exemption is requested.
- **The date the exemption expires must be clearly stated.** It should not exceed one year from the date of issue of the certificate except for musculoskeletal conditions or deformities of a permanent nature. The certificate may not be legally valid without this date.
- Queensland: an approved exemption certificate (form F2690) is to be completed by the practitioner. Contact details are listed in [Appendix 8: Driver licensing authority contacts](#).
- Tasmania: a special application form is required for exemption applications. Contact details are listed in [Appendix 8: Driver licensing authority contacts](#).
- Northern Territory: a medical recommendation that clearly indicates that these guidelines have been referred to in reaching the exemption recommendation. All such recommendations should be sent to the Registrar of Motor Vehicles. Contact details are in [Appendix 8: Driver licensing authority contacts](#).
- Inform the patient that the certificate must be carried when travelling in motor vehicles without using a seatbelt and must be shown to police and authorised officers when requested.
- **Keep a record of all exemptions granted or recommended and document reasons for exemption in case litigation occurs.**

Medical exemptions

The table below suggests guidelines for possible exemptions.

SEAT BELT EXEMPTIONS (AS AT JULY 2011)	
CONDITION	EXEMPTION
Ileostomies and colostomies	No exemption. In normal circumstances, a properly worn seatbelt should not interfere with external devices. An occupational therapist can advise on seatbelt adjustments in other cases.
Musculoskeletal conditions and deformities	Exemption possible for passengers only, depending on the exact nature of the condition.
Obesity	Modification of restraint advised. If not feasible, an exemption is possible.
Pacemakers	No exemption. If the pacemaker receives a direct compression force from a seatbelt, the device should be checked for malfunction.
Physical disability	No exemption. Advise patient about correct fitting.
Pregnancy	No exemption. Advise patient about correct fitting.
Psychological conditions	No exemption. Claustrophobia from seatbelt use can be overcome; if the condition is severe, refer the patient to a specialist.
Scars and wounds	No exemption. Advise the patient about the use of protective padding.

Appendix 7: Helmet use

Relevance to driving task

There is a large body of research that demonstrates the effectiveness of helmets in reducing health and injury to motorcyclists. Research studies have been conducted in countries where helmet use is voluntary, comparing crash experience of users with non-users. The significant benefits of motorcycle helmets have also been measured in countries that change from voluntary helmet use to compulsory.

Helmets are also beneficial for bicyclists as recent studies have shown. A very comprehensive report on bike helmets is Michael Henderson (1995), *The Effectiveness of Bicycle Helmets – A Review*, MAAA of NSW (available on the internet from www.helmets.org/henderso.htm).

Requests from helmet exemptions

Wearing of helmets by motorcyclists in Australia is compulsory. Legislation does not allow for exemptions in New South Wales, Victoria, South Australia, Queensland and the Australian Capital Territory. In the Northern Territory, legislation does not permit exemption on medical grounds. Exemptions are possible in other states only under extremely rare conditions and should be strongly discouraged. Health professionals are urged to point out to patients the risk of severe disability or death compared with the relatively small advantages of an exemption from wearing a motorcycle helmet.

Wearing of helmets by bicyclists in Australia is also compulsory. **In those states or territories where exemptions are possible**, applications should be strongly discouraged in view of the greater risk of injury and death.

Australian driver licensing authorities are moving towards a policy position in which no exemptions from the requirement to wear a helmet when riding a motorcycle or bicycle will be permitted in any state or territory for any reason. The current situation is shown in the table overleaf.

STATE AND TERRITORY LAWS ON EXEMPTIONS FROM WEARING BICYCLE OR MOTORCYCLE HELMETS (AS AT JULY 2011)		
STATE OR TERRITORY	MOTORCYCLE HELMETS	BICYCLE HELMETS
Australian Capital Territory	No exemptions.	No exemptions.
New South Wales	No exemptions.	No exemptions.
Northern Territory	No medical exemptions.	Bicycle helmets are not necessary for people who have attained the age of 17 years and who ride in a public place, on a bicycle way (if separated from the roadway by a barrier) or in an area declared exempt by the transport minister.
Queensland	No exemptions.	A person is exempt from wearing a bicycle helmet if the person is carrying a current doctor's certificate stating that, for a stated period: (a) the person cannot wear a bicycle helmet for medical reasons, or (b) because of a physical characteristic of the person, it would be unreasonable to require the person to wear a bicycle helmet.
South Australia	No exemptions.	Exemptions for Sikh religion only.

STATE AND TERRITORY LAWS ON EXEMPTIONS FROM WEARING BICYCLE OR MOTORCYCLE HELMETS (AS AT JULY 2011)		
STATE OR TERRITORY	MOTORCYCLE HELMETS	BICYCLE HELMETS
Tasmania	Exemption possible on medical grounds at discretion of Transport Commission.	Exemption possible on medical grounds and at the discretion of the Transport Commission.
Victoria	No exemptions.	Exemptions possible in cases of extreme hardship or on medical grounds.
Western Australia	No new motorcycle helmet exemption applications are granted; however, legislation allows exemptions granted on or before 30 November 2000 to be renewed prior to expiry, at the discretion of the Department of Transport with supporting evidence from a medical practitioner.	Exemption on medical or religious grounds. A medical certificate from a GP is required, however, issue is at the discretion of the Department of Transport with supporting evidence from a medical practitioner.
RIDING BICYCLES ON FOOTPATHS [VICTORIA ONLY]		
Victoria only	May ride a bicycle on a footpath if carrying a letter of exemption from a legally qualified medical practitioner stating that it is undesirable, impractical or inexpedient for the rider to ride on a road because of physical or intellectual disability.	The letter must be on a medical practitioner's letterhead and show the date of issue and the date of expiry. The letter must specify that the rider has been advised of the requirement to give way to pedestrians at all times when riding on footpaths. The letter should specify that footpaths are to be used, avoiding, where practicable, footpaths in areas where pedestrian traffic is heavy.

Appendix 8: Driver licensing authority contacts (as at 30 June 2014)

STATE OR TERRITORY	GENERAL CONTACT DETAILS DRIVER LICENSING AUTHORITY	HEALTH PROFESSIONAL ENQUIRIES
Australian Capital Territory	Road User Services PO Box 582 Dickson ACT 2602 Phone: 13 22 81 Email: rus@act.gov.au Web: www.rego.act.gov.au	Licensing and Registration Team Road User Services PO Box 582 Dickson ACT 2602 Phone: (02) 6205 1577
New South Wales	Roads and Maritime Services NSW Locked Bag 928 North Sydney NSW 2059 Phone: 13 22 13 Fax: 02 8588 4105 Email: RTA.Contact.Centre@rms.nsw.gov.au Web: www.rms.nsw.gov.au	Manager – Licence Review Unit RMS Driver Administration Section Locked Bag 14 Grafton NSW 2460 Phone: (02) 6640 2821 Fax: (02) 6640 2894 Email: RTA.Contact.Centre@rms.nsw.gov.au
Northern Territory	Department of Transport Manager Motor Vehicle Registry GPO Box 530 Darwin NT 0801 Phone: 1300 654 628 / (08) 8999 3111 Fax: (08) 8999 3103 Email: mvr@nt.gov.au Web: www.nt.gov.au/transport	Department of Transport Manager Licensing and Compliance GPO Box 530 Darwin NT 0801 Phone: (08) 8999 3108 Fax: (08) 8999 3103 Email: mvr@nt.gov.au Web: www.dlp.nt.gov.au
Queensland	Department of Transport and Main Roads GPO Box 2451 Brisbane QLD 4001 Phone: 13 23 80 Web: www.tmr.qld.gov.au	Senior Manager – Transport Policy Driver Licensing PO Box 673 Fortitude Valley QLD 4006 Phone: (07) 3066 2129 Fax: (07) 3066 2110
South Australia	Department of Planning, Transport and Infrastructure GPO Box 1533 Adelaide SA 5001 Phone: 13 10 84 Fax: (08) 8343 2585 Email: DPTI.enquiriesadministrator@sa.gov.au Web: www.transport.sa.gov.au	Manager – Driver Licensing Department of Planning, Transport and Infrastructure Locked Bag 700 GPO Adelaide SA 5001 Phone: (08) 8402 1946 Fax: (08) 8402 1977
Tasmania	Department of Infrastructure, Energy and Resources GPO Box 1002 Hobart TAS 7001 Phone: 1300 851225 Fax: (03) 6233 5240 Email: dier@dier.tas.gov.au Web: www.transport.tas.gov.au	Medical Review Officer Registration and Licensing Branch Department of Infrastructure, Energy and Resources GPO Box 1002 Hobart TAS 7001 Phone: (03) 6166 4887
Victoria	VicRoads Medical Review PO Box 2504 Kew VIC 3101 Phone: 13 11 71 Email: medicalreview@roads.vic.gov.au Web: www.vicroads.vic.gov.au/medicalreview	VicRoads Medical Review PO Box 2504 Kew VIC 3101 Phone: (03) 9854 2892 Email: medicalreview@roads.vic.gov.au Web: www.vicroads.vic.gov.au/medicalreview

STATE OR TERRITORY	GENERAL CONTACT DETAILS DRIVER LICENSING AUTHORITY	HEALTH PROFESSIONAL ENQUIRIES
Western Australia	Department of Transport GPO Box R1290 Perth WA 6844 Phone: 13 11 56 Fax: (08) 9427 8191 Web: www.transport.wa.gov.au	Team Leader Driver Assessment Section Department of Transport GPO Box R1290 Perth WA 6844 Phone: (08) 9216 8382 Fax: (08) 9216 8178 Email: driver.assessment@transport.wa.gov.au Web: www.transport.wa.gov.au

STATE OR TERRITORY	HEAVY VEHICLE DRIVER LICENSING ENQUIRIES	PUBLIC PASSENGER VEHICLE DRIVER LICENSING ENQUIRIES	DANGEROUS GOODS VEHICLE DRIVER LICENSING ENQUIRIES
Australian Capital Territory	Refer to general contact details (page 149).	Refer to general contact details (page 149).	Dangerous Substances Team Office of Regulatory Services ACT WorkCover GPO Box 158 Canberra ACT 2601 Phone: (02) 6207 6353 Fax: (02) 6207 0455
New South Wales	Refer to general contact details (page 149).	Transport NSW Licensing and Accreditation Locked Bag 5085 Parramatta NSW 2124 Phone: (02) 9689 8888 Fax: (02) 9689 8813	Department of Conservation and Environment PO Box A290 Sydney South NSW 1232 Phone: 13 15 55 or (02) 9995 5555 Fax: (02) 9995 6603
Northern Territory	Refer to general contact details (page 149).	Refer to general contact details (page 149).	NT WorkSafe Department of Justice GPO Box 1722 Darwin NT 0801 Phone: 1800 019 115 Fax: (08) 8999 5141
Queensland	Refer to general contact details (page 149).	Refer to general contact details (page 149).	Industry and Operator Authorisation Team Department of Transport and Main Roads PO Box 673 Fortitude Valley QLD 4006 Phone: (07) 3066 2995 Fax: (07) 3066 2453
South Australia	Refer to general contact details (page 149).	Accreditation and Licensing Centre Department of Planning, Transport and Infrastructure PO Box 9 Marleston BC SA 5033 Phone: (08) 8226 8022 Fax (08) 8226 2026	Dangerous Substances Team SafeWork SA Department for Administrative and Information Services GPO Box 465 Adelaide SA 5001 Phone: (08) 8303 0320 Fax: (08) 8303 0444

STATE OR TERRITORY	HEAVY VEHICLE DRIVER LICENSING ENQUIRIES	PUBLIC PASSENGER VEHICLE DRIVER LICENSING ENQUIRIES	DANGEROUS GOODS VEHICLE DRIVER LICENSING ENQUIRIES
Tasmania	Refer to general contact details (page 149).	Driver Licensing Unit Department of Infrastructure Energy and Resources GPO Box 1002 Hobart TAS 7001 Phone: (03) 6233 5195	Workplace Standards Tasmania PO Box 56 Rosny Park TAS 7018 Phone: 1300 366 322 Email: info@wsa.tas.gov.au
Victoria	Refer to general contact details (page 149).	Victorian Taxi Directorate Level 23 80 Collins Street Melbourne VIC 3000 Phone: 1800 638 802 Fax (03) 8683 0777 Email: tdcontact@transport.vic.gov.au	WorkSafe Victoria Licensing Branch GPO Box 4293 Melbourne VIC 3001 Phone: 1300 852 562 (press 4) Fax: 1800 060 727 Email: licensing@workcover.vic.gov.au
Western Australia	Refer to general contact details (page 149).	Refer to general contact details (page 149).	Department of Consumer and Employment Protection, Resources and Safety Division 100 Plain Street East Perth WA 6004 Phone: (08) 9222 3333 Fax: (08) 9222 3430

Appendix 9: Specialist driver assessors

CONTACTS FOR OCCUPATIONAL THERAPIST SPECIALIST DRIVER ASSESSORS (AS AT JULY 2011)		
REGION	ORGANISATION	CONTACT
Australian Capital Territory	Driver Assessment and Rehabilitation Program (Canberra Hospital)	(02) 6244 2937
New South Wales	OT AUSTRALIA – New South Wales	(02) 9648 3225
Northern Territory	OT AUSTRALIA – Northern Territory	0408 448 080
Queensland	OT AUSTRALIA – Queensland	(07) 3397 6744
South Australia	OT AUSTRALIA – South Australia	(08) 8342 0022
Tasmania	OT AUSTRALIA – Tasmania	(03) 9415 2900
Victoria	VicRoads Medical Review	(03) 9854 2892
Western Australia	OT Australia – Western Australia	(08) 9388 1490
	Independent Living Centre of WA (Inc) – Help line	1300 885 886 www.ilc.com.au

OT AUSTRALIA has a listing of occupational therapists qualified in driver assessment. Visit the OT AUSTRALIA website (www.ausot.com.au).

INDEX

A

Acquired brain injury,	<i>See</i> head injury
Acute myocardial infarction (AMI),	37-55
non-driving period,	38
Addiction,	<i>See</i> substance misuse
ADHD,	<i>See</i> Attention Deficit Hyperactivity Disorder
Age-related decline,	19, 71-4
Alcohol,	110-15
blood alcohol, State rules,	142-3
dependence,	<i>See</i> substance misuse
and diabetes,	56, 111
and epilepsy,	75, 111
and illicit drugs,	20, <i>See</i> substance misuse
ignition interlocks,	113
and medication,	21
Alcoholic,	<i>See</i> substance misuse
Alzheimer's disease,	71
Amphetamines and stimulants,	111
Anaesthesia,	18
Analgesics,	18, 21
Aneurysms,	38, 90, 93
abdominal and thoracic,	49
aortic,	<i>See</i> aneurysms: abdominal and thoracic
intracranial,	<i>See</i> unruptured intracranial aneurysm
repair,	38
Angina pectoris,	37, 43, 44
Angiogram,	<i>See</i> angina pectoris
Angioplasty,	<i>See</i> percutaneous coronary intervention (PCI)
Anticoagulant medication,	18, 39, 51, 52
Antidepressant medication,	21
Antihypertensive medication,	53
Antipsychotic medication,	21
Anxiety,	21, 100
Apnoea, sleep,	105-9
and diabetes,	56, 57
Appeals,	29, 30
Arrhythmias,	37, 46, 47
Arthritis,	<i>See</i> musculoskeletal conditions
Assessment and reporting process,	24-30
Atrial fibrillation,	46
Atrial septal defect,	<i>See</i> congenital disorders; cardiac surgery
Attention deficit hyperactivity disorder (ADHD),	102
AUDIT questionnaire,	112

B

Benign paroxysmal positional vertigo (BPPV),	87, 88
Benzodiazepines,	21
and psychiatric conditions,	101
and substance misuse	110, 111
Bipolar affective disorder,	100, 101
Blackouts	33-36
cardiovascular,	38, 39, 54
hypoglycaemia,	56-8
seizures,	75, 77-85
sleep disorders,	105
Blood alcohol concentration (BAC) limits, State rules,	142-3
Blood clot	
leg,	<i>See</i> deep vein thrombosis
lung,	<i>See</i> pulmonary embolism
Blood pressure, elevated,	<i>See</i> hypertension
Blood sugar, low,	<i>See</i> hypoglycaemia
Blood thinning medication,	<i>See</i> anticoagulant therapy
Brain	
abscess,	<i>See</i> space-occupying lesions
injury,	<i>See</i> head injury
transient brain disorder and epilepsy,	77
tumour,	<i>See</i> space-occupying lesion
vascular malformations,	<i>See</i> aneurysms
Bruce Protocol nomogram,	40, 41
Bundle branch blocks,	<i>See</i> ECG changes
Buprenorphine,	21

C

Caesarean section,	18
Cancer, <i>See</i> general considerations for assessing fitness to drive	
brain,	<i>See</i> space-occupying lesions
treatment,	<i>See</i> drugs: and driving
Cannabis,	111
Cardiac	37-55
arrest,	38, 42, 47, 48
defibrillator,	38, 42, 48
failure,	42, 52
pacemaker,	38, 48, 49
surgery,	37, 38, 44-7, 50
Cardiomyopathy,	
dilated,	42, 51
hypertrophic,	42, 51
Cardiovascular conditions,	37-55

Cardiovascular risk factors,	37
Cataracts,	118
Central sleep apnoea,	105, 106
Cerebral haemorrhage,	<i>See stroke</i>
Cerebral infarction,	<i>See stroke</i>
Cerebral palsy,	19, 90, 93
Cerebrovascular accident (CVA),	<i>See stroke</i>
Chest pain,	<i>See angina pectoris</i>
Coarctation of the aorta,	<i>See congenital disorders: cardiovascular</i>
Cocaine,	110
Cognitive disorders,	<i>See dementia</i>
Colour vision,	116-21
Commercial vehicle drivers	
conditional licences,	13-15
fatigue,	125
fitness for duty,	24
general considerations,	16-23
health assessment requirements for licencing,	125-31
periodic examinations,	13, 125-31
public passenger vehicle drivers,	11-15, 125-31,
specialist assessment,	9-10, 15, 152
Comorbidities	
and alcohol misuse,	110, 111
and diabetes,	57, 59
and epilepsy,	75, 76
and sleep apnoea,	106
<i>See also multiple conditions</i>	
Conditional licences	
commercial drivers,	13-15
removal of licence conditions,	15
role of the specialist,	9-10, 152
types of licence conditions,	14
Confidentiality and privacy,	8-9
Conflict, patient-professional,	9
Confrontation screening (for visual fields),	117
Congenital conditions	
cardiovascular,	52
general considerations,	19, 20
hearing,	63
neuromuscular,	68
visual,	118
Contacts, State Driver Licensing Authorities,	149-51
Continuous positive airways pressure (CPAP),	105, 107
Coronary artery bypass grafting (CABG),	45
non-driving period,	38
Coronary stents,	<i>See Percutaneous coronary intervention (PCI)</i>
CPAP,	<i>See continuous positive airways pressure</i>

D	
Deep vein thrombosis,	39
non-driving period,	18, 38, 50
Defibrillator, cardiac,	38, 48
Dementia,	71-4
Depression,	100-2
Diabetes,	56-62
controlled by diet alone,	59-60
gestational,	58
insulin treated (both type 1 and 2),	56, 57, 59, 61
non-insulin treated Type 2,	58, 59-60
Dilated cardiomyopathy,	51
Diplopia,	118-21
Disability,	<i>See musculoskeletal conditions</i>
Disabled car parking / taxi service,	144
Discrimination,	22
Disorders, multiple,	<i>See multiple conditions</i>
Dizziness,	<i>See vertigo</i>
Double vision,	<i>See diplopia</i>
Driver Licensing contacts,	149-51
Driving assessments, practical,	20, 22
Driving task, requirements of,	16-17
Drugs,	110-5
addiction,	<i>See substance misuse</i>
antidepressants,	21
antipsychotics,	21
benzodiazepines,	21, 110, 111
and driving,	20, 111
illicit,	<i>See substance misuse</i>
opioids,	21, 113
prescription and over-the-counter,	21, 110
Duty to report	
health professional,	8-10
driver,	8
E	
ECG changes,	37, 42, 49
Embolism, pulmonary,	50
non-driving period,	38, 39
Endocrine disorders,	<i>See general considerations for assessing fitness to drive</i>
Environmental factors affecting driving,	17
Epilepsy,	<i>See seizures</i>
Epworth Sleepiness Scale,	106
Equal employment opportunity,	22
Evidence base,	5

Exemptions,	
seatbelt,	145–6
helmet,	147–8
Exercise testing,	37

F

Faint,	<i>See</i> blackouts; syncope
Fatigue management,	11, 13, 125
Fit,	<i>See</i> seizures; blackouts
Fitness for duty,	4, 24
'For cause' examinations,	26
Forms,	25, 132–5
Fronto-temporal dementia,	<i>See</i> dementia

G

Gastrointestinal disorder,	<i>See</i> general considerations for assessing fitness to drive
General considerations for assessing fitness to drive,	16–23
Glaucoma,	19, 118

H

Head injury,	90, 92, 94
non-driving period,	90
and seizures,	77
Hearing,	63–5
Hearing aids,	63
Heart	
attack,	<i>See</i> acute myocardial infarction
block,	<i>See</i> ECG changes
disease,	<i>See</i> cardiovascular conditions
failure,	52
and lung transplant,	38
transplant,	53
See also cardiovascular conditions	
Heartbeat, irregular,	38, 39, 46–9, <i>See also</i> cardiovascular conditions
Helmet use, bicycle, motorcycle, State rules,	147–8
Help for patients,	23
Hemianopia,	117, 120
Hepatic failure,	<i>See</i> general considerations for assessing fitness to drive
High blood pressure,	<i>See</i> hypertension
HIV,	<i>See</i> general considerations for assessing fitness to drive; multiple conditions

Huntington's disease,	71
Hyperemesis gravidarum,	18
Hypertension,	38, 53
in pregnancy,	18
Hypertrophic cardiomyopathy (HCM),	51
Hypoglycaemia,	56–61
lack of hypoglycaemia awareness,	57, 59
severe hypoglycaemic event,	56, 60–1

I

Ildiopathic ventricular tachycardia,	47
Implanted cardiac defibrillator,	38, 48
Infarction	
cerebral,	<i>See</i> stroke
myocardial,	<i>See</i> acute myocardial infarction (AMI)
Insight,	16
and neurological conditions,	70, 72, 90, 93–8
and psychiatric conditions,	102
Insomnia,	<i>See</i> sleep disorders
Insulin treated diabetes mellitus,	56–62
Intellectual impairment,	91, 94
Intracerebral haemorrhage,	<i>See</i> stroke
Intracranial,	
aneurysm,	<i>See</i> unruptured intracranial aneurysm
surgery,	91, 94
tumours,	<i>See</i> space-occupying lesions
Ischaemic heart disease,	37, 43–6

J

Joints,	<i>See</i> musculoskeletal conditions
---------	---------------------------------------

K, L

Lack of hypoglycaemia awareness,	57, 59
Legal and ethical issues,	ix, 6, 7, 8, 9
Legislation relating to reporting	
by drivers,	136–7
by health professionals,	138–41
Licence classes,	12
Licence conditions,	13–15
Licensing process,	11–15
Loss of consciousness,	<i>See</i> blackouts
Low blood sugar,	<i>See</i> hypoglycaemia

M

Malformations, vascular, of brain,	<i>See</i> aneurysms
Manic depression,	<i>See</i> bipolar affective disorder
Marijuana,	<i>See</i> cannabis
Medical Condition Notification Form,	133–5
Medical exemptions, seatbelt use,	145–6
Medical Report Form,	132
Medication	<i>See</i> entries for specific conditions
Meniere's disease,	87, 88
Mental State Examination (MSE),	101–2
Methadone (illicit use),	<i>See</i> substance misuse
Multiple conditions,	17, 19, 20
Multiple disabilities,	19, 20
Multiple sclerosis (MS),	91, 92, 95
Muscular dystrophy,	<i>See</i> neuromuscular conditions
Musculoskeletal conditions,	66–9, 146
Mydriatics,	18, 24
Myocardial infarct	<i>See</i> Acute myocardial infarction (AMI)
Myocardial ischaemia,	<i>See</i> ischaemic heart disease

N

Narcolepsy,	107, 108
Narcotic analgesic abuse,	<i>See</i> substance misuse
Neurodevelopmental disorders,	70, 90
Neurological conditions,	70–99
Neuromuscular conditions,	91, 95
Neuropathy	
optic, 1	18
peripheral,	95, 110
Non-driving periods	
following cardiovascular conditions,	38
following intracranial surgery,	91
following seizures,	76, 78, 79–83, 85
following severe hypoglycaemic event,	56, 57
following stroke,	91, 96
following subarachnoid haemorrhage,	92, 97
following substance misuse,	113, 114
following surgery,	18, 38, 68, 91
following vertigo,	87, 88
Non-insulin treated diabetes mellitus,	58, 59–60
Nystagmus,	118

O

Obstructive sleep apnoea,	105, 106, 107
Occupational therapist	
assessments,	20, 22,
contacts,	152
musculoskeletal assessments,	67, 68
Older drivers	
driver and carer information,	23, 73–4
occupational therapy assessment,	20
practical driver assessment,	20, 22, 152
transition from driving,	23, 72
Opioids,	21, 113
dependence,	<i>See</i> substance misuse
therapeutic use,	21
Optic neuropathy,	118
Orthopaedic	
injuries,	19
non-driving period post-surgery,	18, 68
Over-the-counter (OTC) drugs,	<i>See</i> drugs and driving

P

Pacemaker,	48, 146
Pacemaker insertion,	38
Parking, car (disabled),	144
Parkinson's disease,	91, 96
Paroxysmal arrhythmias,	47
Patent ductus arteriosus,	52
Patient information,	23
Patient–professional conflict,	9
Percutaneous coronary intervention (PCI),	38, 45–7
non-driving period,	38
Peripheral neuropathy,	<i>See</i> neuropathy: peripheral
Personality disorders,	102
Post-surgery, non-driving period,	18
cardiovascular,	38
musculoskeletal,	68,
neurological,	91
Practical driving assessments,	20, 22, 26
Pregnancy,	18, 146
Progressive conditions,	20
neuromuscular,	91
vision,	118
Prostheses,	68
Psychiatric conditions,	100–4, 146
acute psychotic episodes,	102
ADHD,	102
anxiety disorders,	21, 100

bipolar affective disorder,	100, 101	Seizures,	75–86, 111
depression,	100, 101	acute symptomatic seizures,	76, 77, 80
medication for,	101	concurrent conditions,	75
Mental State Examination (MSE),	101–2	epilepsy treated by surgery,	78, 83
personality disorders,	100–1	exceptional cases,	78, 82–3
schizophrenia,	100, 101	first seizure,	76, 77, 80
severe chronic conditions,	102	history of childhood febrile seizures or benign epilepsy syndrome of childhood,	76, 79
Tourette's syndrome,	102	medication non-compliance,	78, 83
Pulmonary embolism,	50	medication withdrawal or dose reduction,	78, 83–4
non-driving period,	50	newly diagnosed epilepsy,	77
Pulmonary stenosis,	52	other conditions with risk of seizure,	75, 76
		prolonged aura,	77
		provoked seizures,	80
		resumption of unconditional licence,	78, 85
		'safe' seizures,	77, 81
		seizure causing a crash,	78, 85
		seizure-free periods,	75–80
		seizure in a person whose epilepsy was 'well controlled',	78, 82
		sleep-only seizures,	77, 81
		Severe hypoglycaemia event,	56, 60–1
		Sleep apnoea,	105–8
		and diabetes,	56–7
		Sleep disorders,	105–9
		Sleeping pills,	<i>See</i> benzodiazepines
		Space-occupying lesions,	92, 97
		Specialist, role of,	9–10, 152
		State regulatory requirements for driver testing,	125–31
		Stents, coronary,	<i>See</i> percutaneous coronary intervention (PCI)
		Stimulant medication,	<i>See</i> substance misuse
		Strain patterns,	<i>See</i> ECG changes
		Stroke,	91–2, 96
		non-driving period,	91, 96
			<i>See also</i> transient ischaemic attacks
		Subarachnoid haemorrhage,	92, 97–8
		non-driving period,	92, 97
		Subdural haematoma, chronic,	<i>See</i> space-occupying lesions
		Substance misuse,	110–5
		Surgery,	18, <i>See specific conditions</i>
		Suspected angina pectoris,	37
		SVT atrial flutter,	47
		Syncope	
		due to hypotension,	39, 54
		vasovagal,	33
			<i>See</i> blackouts

Q

Quadrantanopia, 120

R

Record keeping, 27

Regulatory requirements for driver testing, 125–31

Reinstatement of licences, 15

Renal failure, *See* general considerations for
assessing fitness to drive

Reporting

by health professionals, 8–10, 138–41

Medical Condition Notification Form, 133–5

Medical Report Form, 132

by patients, 8, 136–7

process, *See* assessment and reporting process

Requirements of the driving task, 16–17

Respiratory failure, *See* general considerations for
assessing fitness to drive

Responsibilities

Driver Licensing Authorities, 6–7

drivers, 6, 8

health professionals, 8–9

Retinitis pigmentosa, 118

Role of the specialist, 9–10, 152

S

Schizophrenia, 100, 101

Scotoma, 120

Seatbelt use, 145–6

Sedative medication, 101, 105, 107

T

Tachycardia,	47
Temporary conditions,	18
Tourette's Syndrome,	102
Tranquillisers	<i>See</i> drugs
Transient ischaemic attacks (TIA),	91, 96
Transition from driving,	23, 72
Transplant	
heart,	<i>See</i> heart: transplant
heart/lung,	<i>See</i> heart: lung transplant
Type 2 diabetes,	56-62,
and cardiovascular risk,	37
peripheral neuropathy	95
sleep disorders,	106

U

Undifferentiated conditions,	19
Unruptured intracranial aneurysm,	90, 93

V

Valvular heart disease,	42, 50
Valvular replacement,	38
Vasovagal syncope,	33, <i>See also</i> blackouts
Vascular dementia,	<i>See</i> dementia
Vascular malformations of the brain,	<i>See</i> aneurysms
Vehicle modifications,	14, 22
for hearing loss,	63
for musculoskeletal impairment,	67
Venous thrombosis,	<i>See</i> deep vein thrombosis
Ventricular septal defect,	52
Ventricular tachycardia, idiopathic,	47
Vertigo	
paroxysmal,	87, 88
recurrent,	87
Vestibular disorders,	87-9
Vision and eye disorders,	116-22
Vision,	18, 116-22
acuity,	116, 119
colour,	116, 118
and diabetes,	56
diplopia,	118, 121
double,	<i>See</i> diplopia
fields assessment method,	<i>See</i> confrontation screening
fields,	117, 120
progressive eye conditions,	118
sudden loss of unilateral vision,	118



AUSTROADS
SUITE 2, LEVEL 9, 287 ELIZABETH STREET
SYDNEY NSW 2000 AUSTRALIA
PHONE: +61 2 9264 7088
WWW.AUSTROADS.COM.AU