

Dr John Best

www.orthosports.com.au

160 Belmore Rd, Randwick

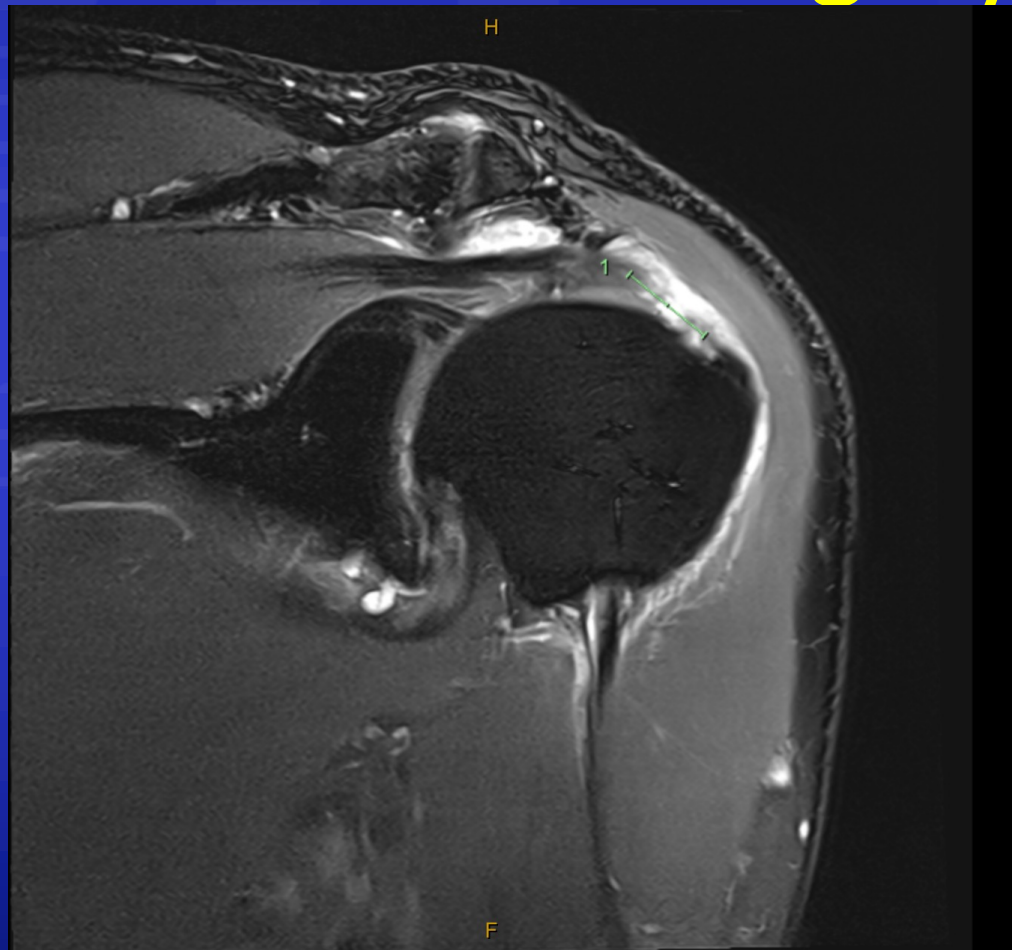


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Clinical and Health Considerations with Arthroscopic Rotator Cuff Surgery



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Prevalence of Rotator Cuff Disease

(Hinsley H, et al. BMJ Open 2022;
20 year cross-sectional study >1000 females)

- In females over 60 years, unilateral tendon pathology or tear was 59.5% (30.6% bilateral).

Age Group	Unilateral tears	Bilateral Tears
60-69	51.5%	24.6%
70-79	61.8%	32%
80-89	72.5%	40.6%

- “As 50% of tears remain asymptomatic, future research may investigate the cause of pain and whether different treatment modalities, aside from addressing the pathology, need further investigation”.



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Demographic and Cultural Features

- ABS 2021
 - Over 65's outnumbered under 15's
 - By 2051, 25% population will be >65 years
- Awareness of healthy ageing
- Active ageing with new activities

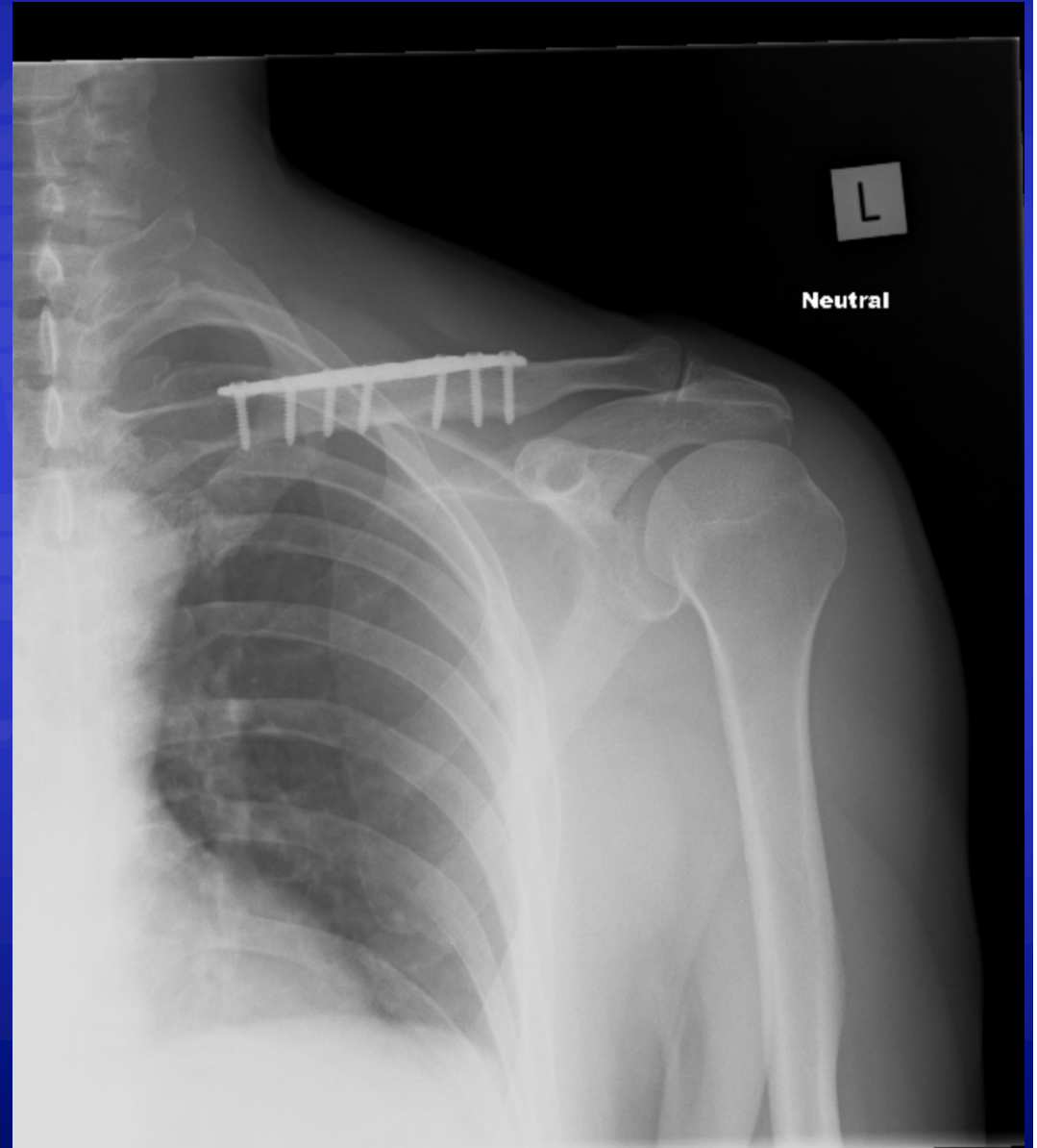


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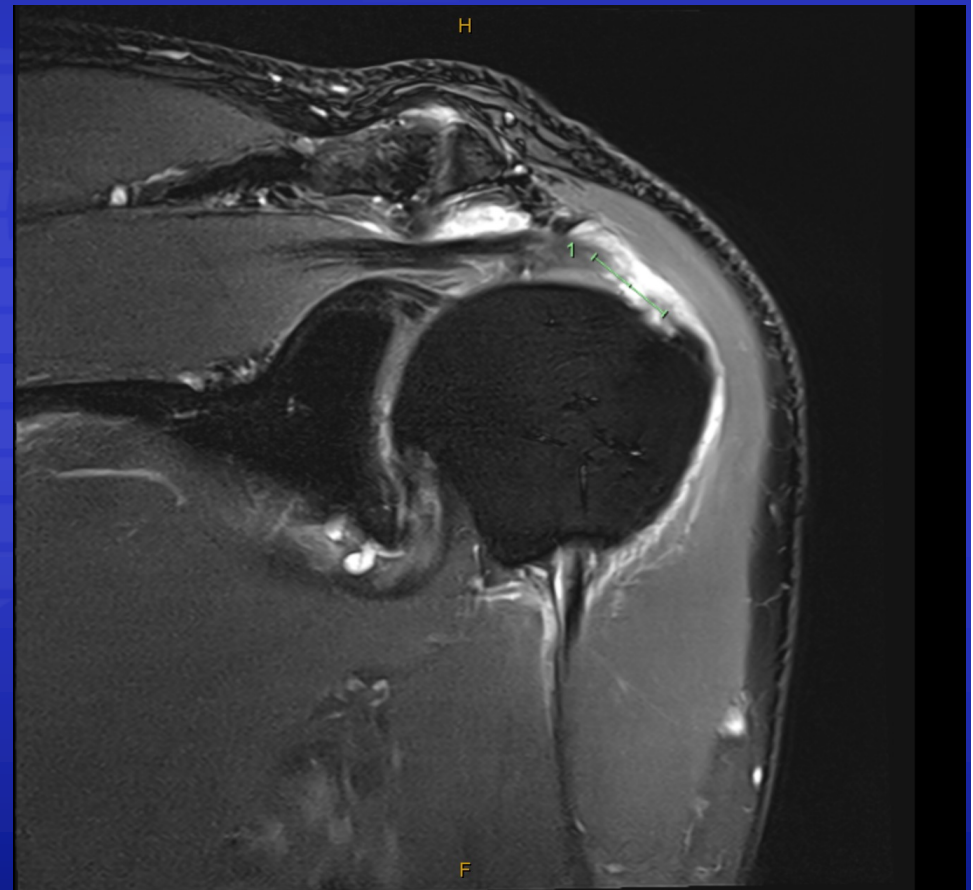
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Case Study – male SEM Physician

MVA, Left Clavicle ORIF



Asymptomatic until an acute Golfing Injury



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The “lift up” test

- No Resistance



- With Resistance



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Operative Considerations (ARCS)

- Shoulder arthroscopy most common after knee joint
- 80% of active >70 year olds with symptomatic tears
 - Size, site and quality of tear (cuff and ?atrophy)
- 90% success with small tears
- <20% large to massive tears
- Untreated tears may reduce QOL and contribute to OA
- Re-tears and revision surgery have much poorer outcome
- Surgical technique and added surgery (e.g. LHB)
- *Histological evaluation of repair of the rotator cuff in a primate model. Sonnabend DH, et al. 2010. J Bone Joint Surg Br. 2010 Apr;92 (4): 586-94.*



Pre-Operative Planning (<6 weeks)

- Health and hygiene
 - Nail care, no abrasions, dental care (for anchor use)
- Medications
 - Avoid shoulder injections (3 months, Lucenti 2024), plan analgesia, sedatives
- Nutrition planning
 - high protein, low sugars, UPFs and alcohol
- Work and transport
- Sleep and bedding
- Clothing and showering
- Work and slings

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Pre-Operative Planning Work, Hygiene and Slings trial and rehearse



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Tetrus Anchors

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EnFix RC[®]

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For use with suture anchors

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Biologic solutions to optimize enthesis reformation, EnFix *is the future of bone to tendon healing.*

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Implanted at the enthesis to improve healing and reduce risk of re-tear



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Immediate Post Operative (0-2 weeks)

- A good anaesthetic team will include nerve blockade and a clear medication plan
- Bedding – 2-4 pillows; propped up
- No short cuts with sling use
- Try to maintain low heart rate as there will be post-op bleeding and swelling
- Consider 'game ready' ice compression
- Easy walking and seated calf raises to reduce DVT risk (rare with shoulder surgery)



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Immobilised Post-Op (2-6 weeks)

- Strict use of sling
- Increase walking and have sun-light exposure
- Stationary bike
- Scapular retraction; alt arm
- Lower limb training whilst seated
- Accept all offers of help
 - Check your mood
- Don't overeat



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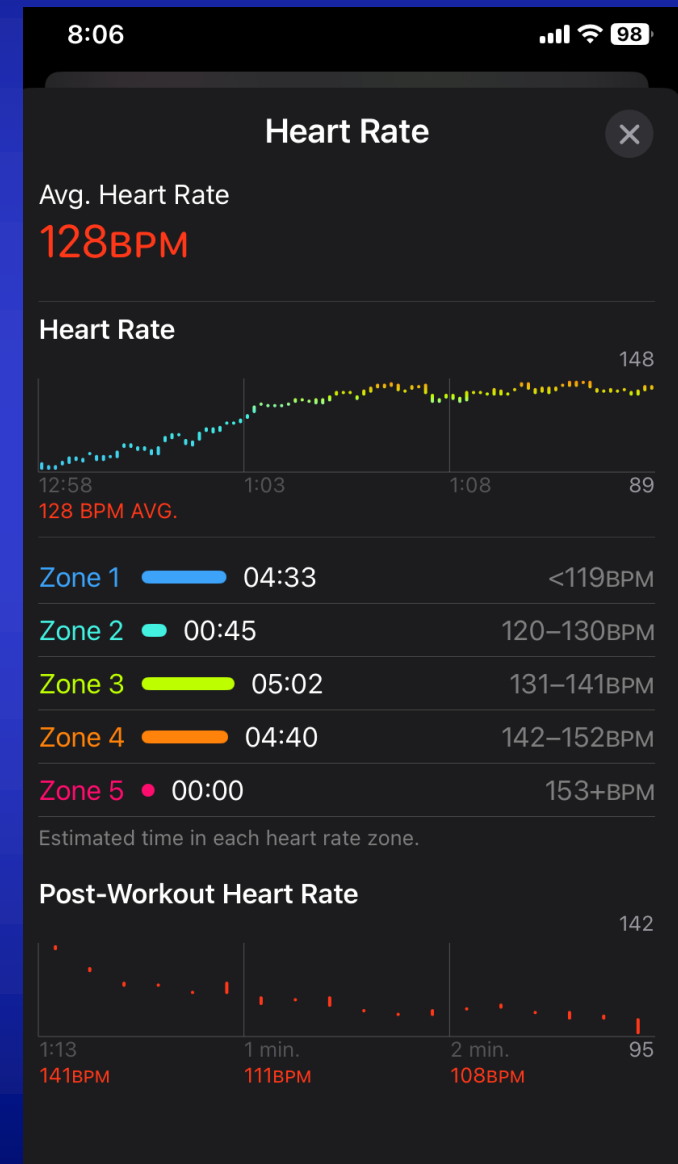
Early post Immobilisation (6-12 weeks)

- Sleep improving
 - Some 'work fatigue'
- Protect shoulder
- Cardio-respiratory fitness >Zone 2
- Scapular positioning++
- Elbow rotation and gripping
- Follow surgeon's advice



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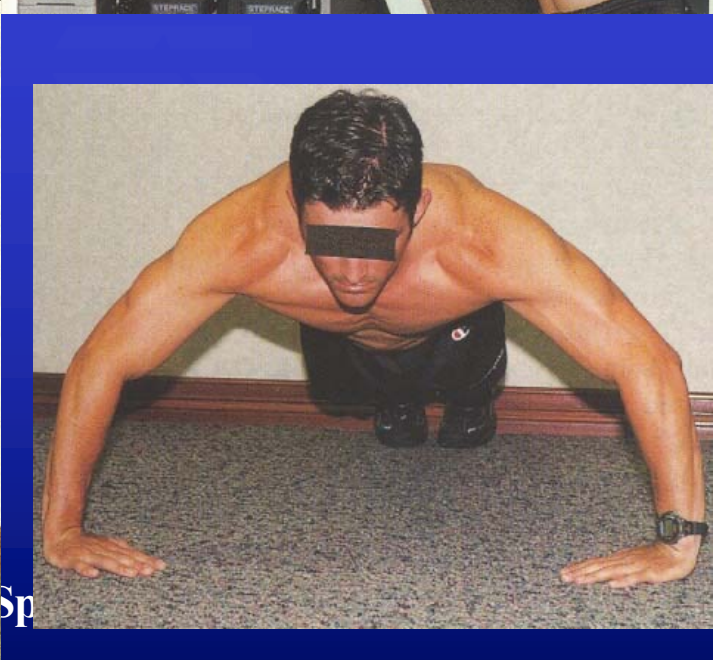
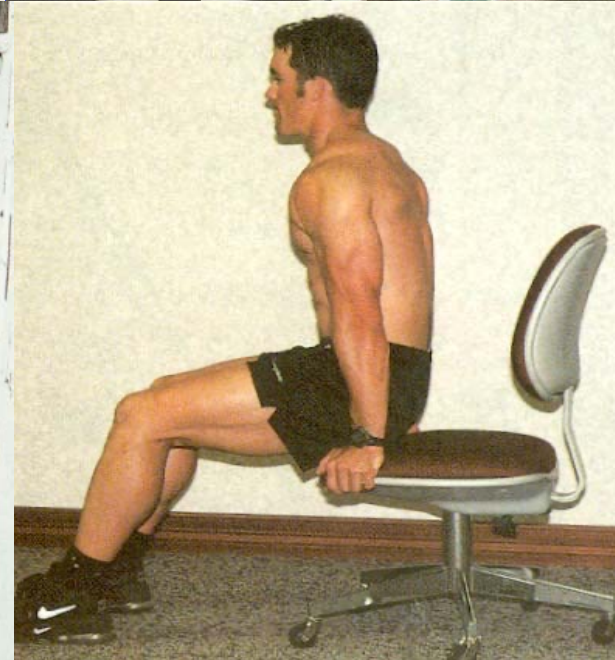
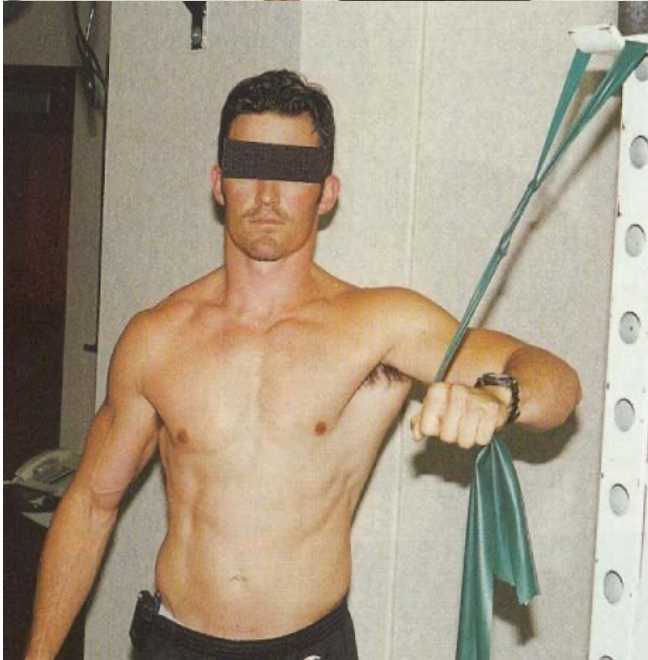
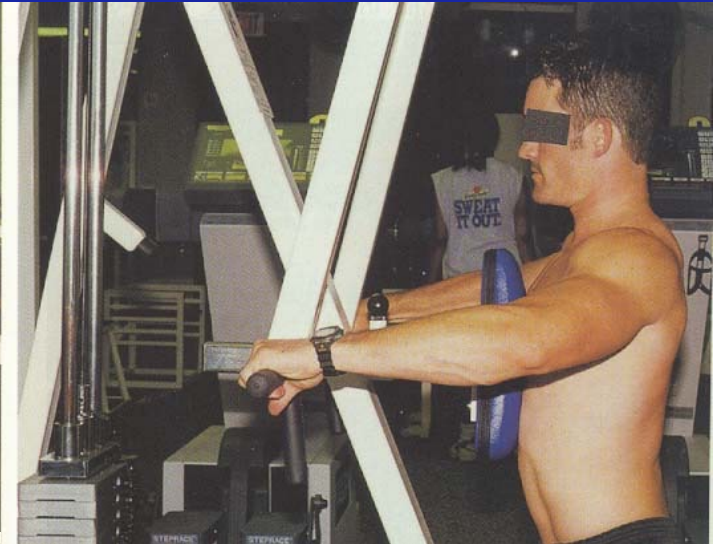
Mid Post Immobilisation (12-26 weeks)

- More interesting rehab stage – surgeon's call
- Sleeping better unless you have a capsulitis
 - 5-23%; very good long term outcome
- Upgrade of isometric training
 - Isometric testing during this period
- Continued scapular positioning and neural length
- Upgrade of C-R fitness with H.I.I.T options
- Possible jogging but minimise risk of falls
- More socialising – be careful with travel

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Later longer term rehabilitation (6-12 months) plans are varied



Later longer term rehabilitation (6-12 months)

- 90% rotator cuff strength at 6 months
- Variety work and sports
 - Close chain
 - ABER loading
 - Controlled
 - External forces
 - Left v right demands
- **AVOID REVISION SURGERY**



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Thank you

- *Histological evaluation of repair of the rotator cuff in a primate model.* Sonnabend DH, et al. 2010. J Bone Joint Surg Br. 2010 Apr;92 (4): 586-94.
- *Arthroscopic Transosseous-Equivalent Double-Row Rotator Cuff Repair Augmentation With Interpositional Demineralized Bone Fiber Implant .* Juan Bernardo Villarreal-Espinosa, M.D., et al Arthroscopy Techniques, Vol 13, No 12 (December), 2024: 103133
- *Contralateral effects of unilateral strength training: evidence and possible mechanisms.* Timothy J Carroll et al. Jnl Appl Physiol 2006 Nov; 101(5):1514-22
- *Criteria for Return-to-Play (RTP) after Rotator Cuff Surgery: A Systematic Review of Literature.* Bravi M. et al. J Clin Med. 2022 Apr 17;11(8):2244



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