



ISSUE 07 | AUTUMN 2012

## ORTHOSPORTS LOCATIONS

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- > Randwick 02 9399 5333

Or visit our website

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**AOA**  
AUSTRALIAN  
ORTHOPAEDIC  
ASSOCIATION

## WHO ARE WE?

Orthosports is a professional association of Orthopaedic Surgeons based in Sydney.

We specialise in joint replacement, arthroscopic and reconstructive surgery.

Orthosports also includes a team of Sport & Exercise Medicine Physicians who are dedicated to promoting excellence in the treatment of musculoskeletal disorders in both adults and children.

Our team of surgeons has particular expertise in hip and knee replacement, ACL Reconstruction, knee and shoulder arthroscopy, open shoulder surgery, trauma, foot and ankle surgery, fracture management, paediatrics and many subspecialist procedures.

All of our practices are conveniently located next to physiotherapy, x-ray and imaging facilities.

Our mission is to have the facilities to offer everything our patients may need but also to be small enough to look after the little details that make all the difference to patient care.

## OUR WEBSITE IS YOUR ORTHOPAEDIC RESOURCE

If you haven't visited our website recently, please take the time to visit and take a look around. It contains descriptions of many common surgical conditions and procedures as well as lectures, animations and videos of lectures given by our surgeons and sports physicians over recent years.

[www.orthosports.com.au](http://www.orthosports.com.au)

## Welcome to the first issue of Orthosports News for 2012!

The newest member of our Orthopaedic Team Dr Kwan Yeoh brings us up to date on Dupuytren's Disease and Dr Doron Sher brings you an interesting article on ACL Surgery.

Dr Jerome Goldberg concludes our Shoulder Examination Series on page 3 so keep an eye out for the Foot and Ankle Examination series in our next edition.

We hope you enjoy this issue of Orthosports News. **The Team at Orthosports**

## The Gender Gap in ACL Surgery



ACL injuries are common. They usually result from a side stepping injury where the knee gives way. The patient may hear a pop or crack or even fall to the ground. They are usually very painful. Typically the knee swells over the next twelve hours and is more painful to walk on the next day. The patient may find that the knee gives way with side stepping, twisting or walking on uneven ground.

Female athletes are far more likely to tear their ACL than male athletes playing the same sport. While this is partly due to anatomical differences such as a narrower intercondylar notch and increased ligamentous laxity we know that specific exercises can reduce this risk. By adding neuromuscular and proprioceptive exercises to the training regimen of female (actually all) athletes we can halve the number of ACL injuries. This applies before or after ACL reconstruction surgery.

ACL reconstruction surgery is generally very successful with a low complication rate. Until recently the rerupture rate of the graft has been higher than we would have liked for female athletes returning to their sports.

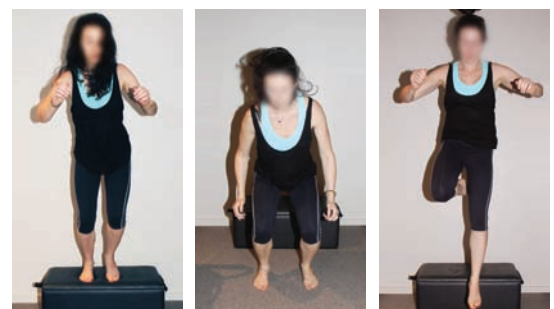
The Santa Monica Orthopaedic and Sports Medicine Foundation studied the problem and designed an ACL Prevention exercise program which has been shown to be successful.

This program is a highly specific 15-minute training session that replaces the

traditional warm-up. It should be performed at least twice a week and teaches the athlete strategies to avoid injury by:

1. Increasing strength
2. Increasing flexibility
3. Increasing proprioception
4. Avoiding vulnerable positions
5. Including plyometric exercises in training

Plyometric exercises are specialized, high intensity training techniques used to develop athletic power (strength and speed). It involves high-intensity, explosive muscular contractions that invoke the stretch reflex (stretching the muscle before it contracts so that it contracts with greater force). Examples include hops, jumps and bounding movements (like jumping off a box and rebounding off the floor and onto another, higher box). These exercises typically increase speed and strength and build power. It is important to use proper technique during jumping moves (jump straight up and down without excessive side-to-side movement), and aim for soft landings.



*Plyometric exercises*

**This new information makes what has always been a successful operation even more reliable for our patients.**

**References:** <http://smsmf.org/pep-program>

*Dr Doron Sher  
Knee, Shoulder and Elbow Surgeon*

# A hand in understanding Dupuytren's disease

Dupuytren's disease is a benign fibroproliferative disorder of the palmar fascia. The disease begins as nodules and cords, generally in line with the fingers. Later, the tight cords lead to flexion contractures of the metacarpophalangeal (MCP) and proximal interphalangeal (PIP) joints. The course of the disease is unpredictable. It may continue to worsen, or may lie quiescent for a number of years before rapidly progressing.

It is most commonly found in Anglo-Celtic males over the age of 50 years, and is associated with liver disease, epilepsy and diabetes. There is no evidence of association with trauma or manual labour.

## INVESTIGATIONS

X-rays are usually not required, except in a severely contracted PIP joint. It is prognostically useful to know whether the underlying joint is deformed as it may require a formal arthrotomy and release, in addition to surgical release of the Dupuytren's cord.

## NON-SURGICAL MANAGEMENT

Early treatment involves observation and reassurance. Patients often present unsure of the changes in their hand and require reassurance that this is not a malignant condition.

New interventions, such as injections of collagenase, are being used but there is still very limited worldwide experience. The data on collagenase injections suggests good initial correction of deformity but recurrence rates of 20 - 75% (Complications include lymphadenopathy and tendon rupture).

## SURGICAL INDICATIONS

The indications for surgery are flexion contractures of  $> 30^\circ$  at the MCP joint or  $> 15^\circ$  at the PIP joint. The Hueston table top test is positive if the patient is unable to place their palm flat against the table top and is another indication for surgery.

## SURGICAL MANAGEMENT

Operations for Dupuytren's disease can be divided roughly into fasciotomies (dividing) and fasciectomy (removing).

The most popular procedure for Dupuytren's disease is an open limited fasciectomy. An incision is made over the Dupuytren's cord and the contracted fascia excised. Local skin flaps are often used to relieve the contracted palmar skin of tension during finger extension.



The recurrence rate is approximately 15%.

A more radical operation is a dermofasciectomy, which involves removing the diseased fascia with the overlying skin. This is usually reserved for recurrent disease. The wounds can be covered with a skin graft or left partially open to heal by secondary intention. The recurrence rate approaches 0%.

Percutaneous needle fasciotomy is regaining popularity. A hypodermic needle is introduced through the palmar skin directly over the Dupuytren's cord. The bevelled end of the needle is then used to cut the cord, and the finger passively extended. The recurrence rate after needle fasciotomy is reported to be greater than 50%. Needle fasciotomy has a role in patients who have a strong preference to avoid an anaesthetic or have a high anaesthetic risk. It can also be useful as a temporising procedure in patients with a severe MCP contracture if there is a long wait for surgery, allowing the patient to open and clean their hand.

## OUTCOMES

Intraoperative gains in MCP range of motion are generally maintained with postoperative splinting and hand therapy. PIP flexion contractures are harder to maintain, and ongoing flexion contractures of  $30^\circ$  or greater are often found.

The most common complications after a limited fasciectomy are haematoma, superficial infections and wound healing issues. Digital nerve injury is less likely but possible.

## SUMMARY

In its early phases, Dupuytren's disease requires observation and reassurance. Surgical intervention is indicated with an MCP contracture of  $> 30^\circ$ , a PIP contracture of  $> 15^\circ$ , or a positive table top test. Open limited fasciectomy remains the most popular treatment due to its low recurrence rate, but percutaneous needle fasciotomy is regaining popularity and new treatments including collagenase injections are being studied.

*Dr Kwan Yeoh  
Hand and Upper Limb Surgeon*

 Sydney  
Shoulder  
Clinic

A sub-group of Orthosports, The Sydney Shoulder Clinic is a specialist shoulder service providing clinical care in physiotherapy, sport & exercise medicine and orthopaedic surgery.

[www.sydneyshoulderclinic.com.au](http://www.sydneyshoulderclinic.com.au)



# KEY EXAMINATION POINTS



## For the patient with shoulder instability

History taking in determining whether the patient has an instability is as important as the physical examination. Determining the mechanism of injury and the position of the arm when the patient feels their shoulder slip out of joint is a necessity.

Specifically if the arm is in abduction and external rotation when the patient has the sensation of instability, the instability then is in an anterior direction. If the arm is adducted and internally rotated the instability is posterior. Apart from a frank dislocation or subluxation the patient may have a subtle instability and complain of “the arm going dead” with forced abduction and external rotation of the arm such as when going into a tackle, throwing or serving at tennis. Beware of the patient who complains of instability with the arm by the side. Patients who are hypermobile or have generalised ligamentous laxity are more prone to have instability than others.

Remember the examination concept of look, feel, and move.

Look for wasting of the shoulder girdle muscles, rupture of the long head of biceps and any scarring. Feel the whole shoulder girdle and determine the tender points. In particular, tenderness of the joint lines, anterior and/or posterior, often occur in instability.

Examine the patient elevating the arms in forward flexion from both the back and the front. Observe any abnormality of rhythm and compare the injured to the non injured side. Specifically observe the movement from behind and watch the scapula

move comparing one side to the other. Although uncommon if the scapula wings as the patient brings the arm down one should suspect a scapula dysrhythmia, as a potential cause of the problem. Check the patient has a full range of motion.



FIG 1: Examine from behind for scapula dysrhythmia

Look for ligamentous laxity by checking if the thumb can reach the back of the forearm.



FIG 2: Examine for ligamentous laxity

The apprehension signs are designed to determine whether the shoulder is unstable. The aim is to put the shoulder in the provocative position for the dislocation and reproduce the patient’s symptoms without actually dislocating the shoulder. For an anterior dislocation the shoulder should be put in abduction and external rotation, and for a posterior instability

the direction of force should be adduction and internal rotation. This test can generally be done with the patient sitting on an examination couch but in the larger patient it is often easier to have the patient in the supine position.

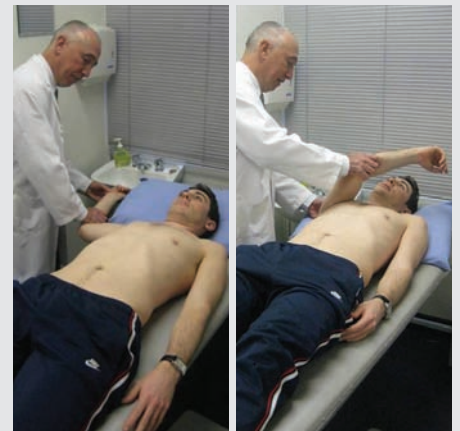


Fig 3 & 4: Anterior & posterior apprehension signs with patient supine

Inferior instability can be determined by pulling the arm inferiorly and reproducing a sulcus sign.



FIG 5: Sulcus sign

If you suspect an instability then plain xrays are required to exclude fractures of the glenoid in particular (the so called bony Bankart lesion) or glenoid dysplasia. Ultrasounds are of little value. If surgery is contemplated the patient requires an MRI with intraarticular contrast. An MRI without contrast is not as helpful.

Dr Jerome Goldberg  
Shoulder Surgeon

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# Orthopaedic Surgeons and their Interests

LOCATION	SURGEON	SPECIALTY
<b>CONCORD</b> 47-49 Burwood Road, Concord NSW 2137 Tel: 02 9744 2666	Dr Todd Gothelf	Shoulder, Foot & Ankle
	Dr John Negrine	Foot & Ankle (Adult)
	Dr Rodney Pattinson	Paediatrics and General Orthopaedics
	Dr Doron Sher	Knee, Shoulder and Elbow
	Dr Kwan Yeoh	Hand, Upper Limb and General Orthopaedics
<b>HURSTVILLE</b> 2 Pearl Street, Hurstville NSW 2220 Tel: 02 9580 6066	Dr Jerome Goldberg	Shoulder
	Dr Todd Gothelf	Shoulder, Foot & Ankle
	Dr Andreas Loeffler	Spine, Trauma, Hip and Knee
	Dr John Negrine	Foot & Ankle (Adult)
	Dr Rodney Pattinson	Paediatrics and General Orthopaedics
	Dr Ivan Popoff	Shoulder, Knee and Elbow
	Dr Allen Turnbull	Hip and Knee
	Dr Kwan Yeoh	Hand, Upper Limb and General Orthopaedics
<b>PENRITH</b> Level 3, 1a Barber Avenue, Kingswood NSW 2747 Tel: 02 4721 1865	Dr Todd Gothelf	Shoulder, Foot & Ankle
<b>RANDWICK</b> 160 Belmore Road, Randwick NSW 2031 Tel: 02 9399 5333	Dr Jerome Goldberg	Shoulder
	Dr Todd Gothelf	Shoulder, Foot & Ankle
	Dr Andreas Loeffler	Spine, Trauma, Hip and Knee
	Dr John Negrine	Foot & Ankle (Adult)
	Dr Rodney Pattinson	Paediatrics and General Orthopaedics
	Dr Ivan Popoff	Shoulder, Knee and Elbow
	Dr Doron Sher	Knee, Shoulder and Elbow
Dr Kwan Yeoh	Hand, Upper Limb and General Orthopaedics	

## Sport & Exercise Medicine Physicians

PHYSICIAN	LOCATION	PHYSICIAN	LOCATION
Dr Paul Annett	Hurstville	Dr Mel Cusi	Concord   Hurstville   Randwick
Dr John Best	Randwick		



Dr Doron Sher  
 M.B., B.S. (NSW),  
 M.Biomed.E.,  
 F.R.A.C.S. (Ortho.)  
 Orthopaedic Surgeon

### Spotlight on Dr Doron Sher

Dr Doron Sher is an Orthopaedic Surgeon specialising in knee, shoulder and elbow surgery, and is a Fellow of the Royal Australasian College of Surgeons.

Dr Sher completed a medical degree at the University of New South Wales in 1991. Following this he completed a Masters Degree in Biomedical Engineering, during which time his research thesis on Anterior Cruciate Ligament Reconstruction won the Evelyn Hamilton Memorial prize from the Australian Orthopaedic Association.

After completing Orthopaedic training in the Sydney Orthopaedic Training Scheme, Dr Sher then travelled

internationally undertaking subspecialty fellowships, and is now Head of the Department of Orthopaedics at Concord Repatriation Hospital.

Dr Sher is actively involved in a variety of research projects. Many of these projects have been published in international peer reviewed journals on topics including: knee arthroscopy and ligament reconstructions; joint replacement of the knee, shoulder and elbow; and arthroscopic and open shoulder surgery.

Dr Sher is dedicated to the concept of "Life Long Learning and Research" which allows him to remain at the leading edge of patient care and rehabilitation.

Dr Sher consults from the Concord and Randwick Offices.

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