

## WHAT YOU'LL FIND IN THIS BROCHURE

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## What is a shoulder injury?

- Shoulder injuries are very common in collision sports (e.g. rugby union) and in sports that use a large range of motion of the shoulder (e.g. swimming or gymnastics)
- The large freedom of movement and the shallow fit between joint surfaces make the shoulder prone to injury
- Damage to the supporting structures (ligaments and muscles) may lead to pain and instability



## How do shoulder injuries occur?

- Shoulder injuries occur after falling on an outstretched hand or the point of the shoulder, following a direct blow to the shoulder, or following overuse
- These forces may cause there to be a tearing or complete rupture of one or more of the ligaments or muscles

## What should you do if a shoulder injury occurs?

Apply the RIC\*D procedure...

### RIC\*D procedure

\* You generally elevate the injured body part above the level of the heart. The shoulder is above the level of the heart already therefore 'elevation' has not been included in the steps below.

#### REST

- Rest reduces further damage - stop activity as soon as the injury occurs.
- Avoid as much movement of the injured part as possible to limit further injury.
- Don't put any weight on the injured part of the body.



#### ICE

- Ice cools the tissue and reduces pain, swelling and bleeding.
- Place ice wrapped in a damp towel onto the injured area - don't put ice directly onto bare skin.
- Hold the ice pack firmly in place with a bandage.
- Keep ice on the injury for 20 minutes every two hours for the first 48 hours.



#### COMPRESSION

- Firm bandaging helps to reduce bleeding and swelling.
- Ensure that bandaging is not so tight that it cuts off circulation or causes tingling or pain past the bandage.
- Bandage the injury between ice treatments.



#### DIAGNOSIS

- Consult a medical professional (such as a doctor or physiotherapist) especially if you are worried about the injury, or if the pain or swelling gets worse.
- If the pain or swelling has not gone down significantly within 48 hours, also seek treatment.
- An accurate diagnosis is essential for proper rehabilitation of moderate to severe injuries.

## What rehabilitation should follow a shoulder injury?

The following recommendations serve as a guideline only.

**Always seek the advice of a medical professional for a rehabilitation programme specific to you and your injury.**

### Range of motion

- Restoring normal range of motion is essential to allow full functional recovery of the shoulder of the shoulder
- Shoulder movement can be improved initially using pendulum exercises (i.e. by letting your arm gently swing forwards and backwards while bending forward)
- Passive (assisted movement) and active (self-movement) exercises should be introduced as improvements allow
- A quick and easy way to evaluate shoulder range of motion is the Apley scratch test (stand in front of mirror):
  - Reach behind your back and touch as high up your spine as possible and then return to normal
  - Reach up behind your head and touch as far down your back as possible
  - Perform each of the two movements with both arms
  - Compare between arms

### Cardiovascular fitness

- Keeping fit will ensure a more comfortable return to training and competition
- As most sports involve some running, activities such as power walking, running and stationary cycling are excellent methods of maintaining fitness
- In sports that require upper body conditioning (e.g. swimming) more specific training should be introduced to the upper limb as comfort permits

### Strength

- Strength in the shoulder and shoulder blade muscles must be restored to ensure that the joint is stable during activity
- Strength can first be improved by performing isometric contractions (holding a fixed position for 10 to 20 seconds) against resistance
- As strength and range of motion improve, light weights or flexibands can be used for added resistance through a greater range of motion

### Balance

- Balance and coordination need to be restored. Proprioception is the awareness of one's body position and is important in balance and coordination
- Injury to the shoulder joint causes a reduction in proprioceptive ability
- Proprioception training will help to re-educate the shoulder muscles, improve joint stability, and protect against future injury
- Push-ups and chest passing a ball against a wall will improve strength and coordination

### Psychological status

- Reduced confidence following a shoulder injury may prevent an athlete from attempting stressful movements (e.g. passing, tackling and falling on the ground)
- Gradually attempting more difficult agility tasks and setting realistic goals and time frames may help to rebuild sporting confidence
- Return to competition is not advised until an individual has 100% confidence in their playing ability

### Sport-specific rehabilitation

- When general function has been restored, rehabilitation should focus on preparing the shoulder for sport-specific activity (e.g. throwing, hitting and passing actions)
- Sport-specific rehabilitation should be determined by the sporting code, the level of sport and the position
- Heavy contact sports (e.g. rugby union and rugby league) involve large impact forces from tackles, scrums and falls. Return to competitive sport is possible when these stresses and other sport-related movements no longer cause discomfort, pain and/or swelling

**Ensure you are completely rehabilitated before returning to competition to minimise the risk of re-injury.**



## Example of a return to play strategy after a grade 1 shoulder injury (sprain/strain/bruise)

→ NOTE: This is a guide only. Timeframes for rehabilitation and return to play vary depending on the nature and severity of the injury. Always seek the advice of a medical professional for a rehabilitation programme specific to you and your injury.

<b>DAYS 1-3 POST INJURY</b>	<b>DAYS 7 - 10 CAN YOU:</b>
<ul style="list-style-type: none"> <li>Have swelling and pain settled?</li> </ul>	<ul style="list-style-type: none"> <li>Match the strength, range of motion and proprioception of the non-injured shoulder?</li> <li>Perform press-ups without pain?</li> </ul>
↓ Yes	↓ No
<b>Begin range of motion exercises</b> <ul style="list-style-type: none"> <li>Passive/active movement of the shoulder</li> </ul> <b>Begin gentle strengthening</b>	<b>Continue RIC*D treatment</b> <p>If swelling and pain persist, consult a medical professional for further assessment and treatment</p>
<b>DAYS 4 - 6 CAN YOU:</b>	<b>DAYS 7 - 10 CAN YOU:</b>
<ul style="list-style-type: none"> <li>Move shoulder through full range of motion without pain?</li> </ul>	<ul style="list-style-type: none"> <li>Match the strength, range of motion and proprioception of the non-injured shoulder?</li> <li>Perform press-ups without pain?</li> </ul>
↓ Yes	↓ No
<b>Progression</b> <ul style="list-style-type: none"> <li>Strengthening exercises to improve the stability of the shoulder blade</li> <li>Increase resistance and range of movement for strengthening exercises</li> <li>Full range of motion</li> </ul> <b>Progression</b> <ul style="list-style-type: none"> <li>Coordination &amp; proprioception exercises</li> </ul>	<b>Continue to improve strength and movement</b>
+	<b>Maintain Fitness</b> <ul style="list-style-type: none"> <li>Stationary cycling, running, lower body exercises</li> </ul>
<b>Maintain Fitness</b> <ul style="list-style-type: none"> <li>Stationary cycling, running, lower body exercises</li> </ul>	<b>DAYS 12 - 14</b>
<ul style="list-style-type: none"> <li>Pass, throw, catch a ball without pain?</li> <li>Perform functional tests adequately?</li> <li>Complete all exercises with 100% confidence?</li> </ul>	<ul style="list-style-type: none"> <li>Match the strength, range of motion and proprioception of the non-injured shoulder?</li> <li>Perform press-ups without pain?</li> </ul>
↓ Yes	↓ No
<b>Return to training</b>	<b>Continue to improve agility and sport-specific drills</b>
+	<b>Maintain</b> <ul style="list-style-type: none"> <li>Fitness, range of motion, strength, balance</li> </ul>

## How can you reduce the risk of re-injury?

ALWAYS seek the advice of a medical professional before returning to sport. Inadequate rehabilitation and a premature return to sport will increase the risk of re-injury.

- Continue stretching, proprioception and strengthening exercises as part of a normal training routine
- Correct tackling and falling techniques should be practised at all times
- Avoid breaking a fall with an outstretched arm (learn to roll safely)
- Proper warm-ups should always be performed before any explosive movements or impacts
- Bracing and taping can assist with supporting the shoulder  
If possible, use braces rather than tape, as the effective support provided by taping is generally reduced after 20 minutes of play. Ensure that the brace fits correctly, it complies with the rules of the game and it is suitable for you and the sport
- If shoulder pain persists, consult a medical professional for advice on other possible contributing factors

