

Shoulder disorders: physiotherapy can help

Shoulder disorders are commonly seen by physiotherapists. The shoulder complex is a complicated area. It consists of the:

- glenohumeral joint
- acromio-clavicular joint
- sterno-clavicular joint
- scapulothoracic articulation.

There is minimal bony support which enables a large range of movement to occur through the upper limb. This leads to problems as in essence, the shoulder complex is controlled by soft tissue.

The gleno-humeral joint has often been described as a watermelon on a saucer. This is not far from the truth. The rotator cuff muscles need to work in good synchronisation, with supportive ligaments for effective shoulder function.

A full subjective and objective assessment of the shoulder and surrounding areas can be a lengthy process but is essential for good clinical outcomes.

There are three main subdivisions into which shoulder disorders nearly always fall:

1. impingement/rotator cuff injuries
2. instability
3. adhesive capsulitis/capsular restrictions.

It is also important to consider other factors when assessing a shoulder disorder. This includes:

- referred pain (from the cervical or thoracic spine)
- sporting technique including equipment changes/modifications, eg. tennis racquet change
- biomechanical and postural issues.



If these factors are not addressed they will affect the healing process and the patient's outcome.

A thorough subjective and objective assessment is important. Experience in orthopaedic shoulder tests is vital. Shoulder range of movement, scapulathoracic rhythm, strength, impingement and stability tests should be an essential part of your assessment to assist diagnosis. If necessary, imaging will also assist diagnosis. Research shows the majority of shoulder problems will settle with exercise, modified rest and re-education. Although osteoarthritis is uncommon in the gleno-humeral joint, subtle changes in the bone may be present that can predispose to specific conditions developing. Acromial spurs are an example of this.

Early diagnosis and physiotherapy treatment will produce quicker improvements and better outcomes in the majority of clients. Diagnosis and treatment must be tailored to the individual client.



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Medical management

- Non-steroidal anti-inflammatory drugs are often beneficial in the acute stage and short periods of rest can have some value
- Cortico-steroid injections into the shoulder joint or surrounding areas can be very beneficial to reduce pain, inflammation and allow rehabilitation to progress
- Surgery may be indicated for full thickness rotator cuff tears, impingement due to bony spurs and labral repairs in instability problems.

Physiotherapy

Physiotherapy plays a large role in shoulder dysfunction. Delays in referral can mean further damage to the joints leading to increased risk of surgery and more invasive treatments. Accurate and thorough diagnosis along with good exercise prescription will settle the majority of these shoulder disorders, especially if seen early.

The rotator cuff is an important group of muscles for the stability of the shoulder complex. They act to stabilise the head of humerus in the glenoid fossa. For this reason they will often form part of the rehabilitation program. The physio will also look closely at scapulohumeral control which is the quality of the scapula movement as the arm is moved. Specific exercises will be provided to optimise this control if necessary.

Maintaining good function of the surrounding joints of the shoulder will assist recovery. Mobilisation of the lower cervical and thoracic spine can in some cases, produce instant improvements in shoulder range and pain.

This is because good function and posture changes in the spine will 'de-load' the shoulder joint and tissues.

Gradual hydrotherapy and exercise rehabilitation can be useful to improve range of movement and strength especially if a client is finding land treatment too painful.



Contact details

Shoulder disorders

The glenohumeral joint—where the head of the humerus (upper arm bone) attaches to the shoulder blade—is classified as a ball-and-socket joint. However it is more akin to a golf ball sitting on a tee as the socket is quite shallow and does not actually encapsulate much of the ball. The sternoclavicular joint—where the collarbone attaches to the sternum—is the only joint that connects the entire upper limb to the main skeleton. This design allows the shoulder to be the most mobile joint in the body, but makes it prone to injury due to the lack of inherent stability and the reliance on muscles and ligaments for support.

Symptoms

Traumatic shoulder disorders resulting from falls or impact range in severity from bruises and minor muscle and tendon strains to fractures and dislocations. The severity and frequency of pain often relates to the severity of the injury, so if the pain is constant and severe, it is likely your shoulder injury will take longer to heal. However, if your pain is mild and does not significantly restrict your movement, it is likely that with proper management, your shoulder will return to normal quite quickly.

Non-traumatic and overuse injuries of the shoulder are very common. Heavy or repetitive movements, particularly in awkward positions, greatly increase the risk of shoulder injury. Disuse, poor posture and previous injury can cause tight or weak muscles around the shoulder which can lead to injury.

In the early stages, pain may be limited to specific movements or only evident after a day of heavy or repetitive work. If the condition is allowed to progress, the inflamed structures in the shoulder can cause impingement during movement, resulting in greater pain and decreased range of motion. The longer this process continues, the more the affected tendons can 'wear out' and in longstanding, untreated cases, this can potentially cause the tendon to rupture. In more advanced non-traumatic or overuse shoulder conditions, symptoms will include pain at rest, difficulty with movements like reaching above your head or behind your back and disturbed sleep.



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What can you do?

The best initial treatment is 'relative rest' from activities that worsen the symptoms. This does not mean resting completely, rather modifying or limiting aggravating activities. Some relative rest examples include:

- placing your computer mouse as close to yourself as possible to limit reaching
- carrying items close to your body and use a backpack where possible
- avoiding lifting anything above your head
- taking regular breaks or frequently change your activity, if you are unable to modify aggravating activities
- applying an ice pack after traumatic injuries or if your shoulder pain has flared up
- applying a heat pack when experiencing shoulder stiffness.

What can physiotherapy do?

A physiotherapist can determine whether the shoulder disorder is being caused by musculoskeletal factors or if there are other reasons for the pain. Your physiotherapist will then undertake a thorough assessment including:

- posture analysis to assess whether your normal sitting or standing position is stressing your shoulder
- examination of your shoulder range of movement and biomechanics
- joint and muscle testing to measure pain, restriction, weakness and tightness
- assessment of other areas of the body to determine other factors that may be causing pain
- organising imaging such as x-ray, ultrasound or MRI scans.

A tailored treatment plan will then be designed to suit your work and recreational lifestyle. This will typically include a combination of:

- massage to stretch tight muscles
- joint mobilisations to regain lost range of motion
- strength work
- stretches
- postural correction
- taping.



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