

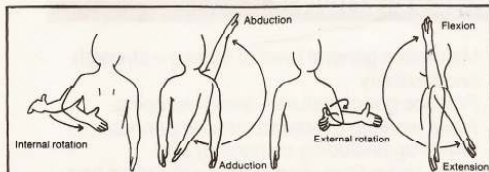
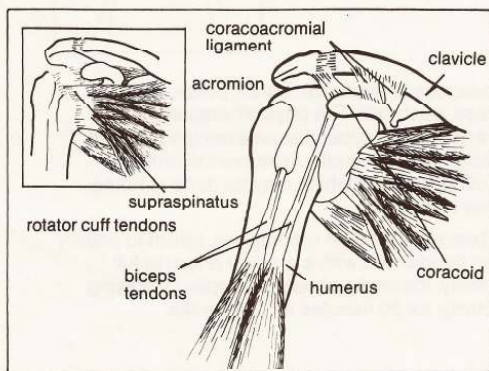
DESCRIPTION

Shoulder pain can be a common complaint to athletes who use their shoulders a lot in a repetitive action, such as swimmers and tennis players. Athletes, however, are not the only ones afflicted with shoulder pain as many occupations can also result in repetitive actions of the shoulder, and lead to shoulder injury. Sudden unaccustomed use can also trigger shoulder problems.

ANATOMY

The shoulder is a highly mobile joint, consisting of 3 bones, a joint capsule, ligaments, tendons and a bursa.

The humerus is acted upon by the various muscles to perform the actions of flexion, extension, abduction, adduction, internal rotation, external rotation and circumduction. In perfect health, it has the greatest range of movement of any of the joints of the body. But each of the constituents of the shoulder is subject to injury, alone or in combination. As well, pain may be referred to the shoulder from the heart, the neck, the gallbladder, spleen, etc.



Above: Shoulder movements.

ETIOLOGY

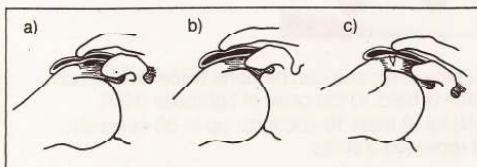
The most common shoulder problem is that of the 'impingement syndrome'. When the arm is held out away from the body, the rotator cuff tendons and the bursa get squeezed.

This trauma, sustained or applied repetitively, can cause inflammation of the bursa (known as bursitis) or of the tendons (tendonitis). The tendon usually affected is the supraspinatus

because it has a restricted space. As it or the bursa become inflamed, the space becomes even more restricted, increasing the squeeze and thus increasing the inflammation, and so goes the cycle.

The inflammation can lead to calcification or to rupture of a tendon, commonly known as a 'tear'.

It is interesting to note that it is possible to trigger this painful condition by sleeping on the arm with it held away from the body. In this position, the 'squeeze' is maintained and the oxygen supply is interrupted, resulting in cell damage.



a) bursa and tendon are impinged. b) inflamed bursa and tendon. c) damage to rotator cuff.

CAUSES

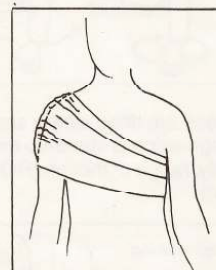
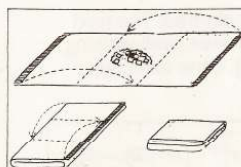
1. Overuse, i.e. 'wear and tear'.
2. Sudden, unaccustomed use, e.g. weekend athlete.
3. Injury, such as a direct blow or a fall, causing the onset of inflammation.
4. Poor posture.
5. Muscle weakness, i.e. lack of fitness.

TREATMENT

The aims of treatment are to reduce the inflammation, aid in complete healing and prevent recurrence of the injury.

1. Immediate Treatment – should consist of ice packs, made from crushed ice in a damp towel, applied for 20 minutes, 2-3 times daily.

Right: Ice pack. Below: Making an ice pack.



2. Anti-inflammatory medication may be prescribed and must be taken as directed.
3. Physiotherapy – is essential to ensure the return of full shoulder mobility and prevent recurrence of the injury.

Physiotherapy may include one or a combination of the following:

- a) cryotherapy (ice and exercise)
- b) ultrasound
- c) electrical stimulation
- d) electromagnetic therapy
- e) mobilization techniques
- f) stretch and strengthen routines