

“Swimmer’s Shoulder”

Swimmer’s shoulder is a non specific term used to describe shoulder pain in the swimming athlete. About 90% of propulsion in swimming comes from the upper limbs which are attempting to overcome the drag effect of the water.

Technically speaking, swimmer’s shoulder is a rotator cuff impingement whereby the tendons (rotator cuff) that hold the ball (humeral head) in the socket (glenoid) become pinched under the acromion process of the shoulder blade. The bursa in between the bones and tendon can also be affected.

This is usually due to a rotator cuff tendinopathy (overload of tendon) so that the ball fails to be adequately centred in the socket and as a result pinches above during the swimming stroke.

Most of the time, this is a result of excessive training loads combined with poor biomechanics (ie – how the body moves). In a typical 3.5km training swim, the arm will rotate well over 1000 times, so a small fault in technique or an imbalance in strength or length of muscles can quickly escalate into a problem.

Common faults in swimming that cause this are:

- Insufficient body roll (can be improved by breathing to both sides).
- Excessive internal rotation at the catch (start of the pull) of the stroke. Aim for hand to enter water via the middle finger as opposed to the thumb and index finger.
- Excessive adduction in the pull phase of the stroke where the hand crosses the midline too much.
- Dropped elbow or excessively straight arm on the recovery phase of the stroke.
- Over-reaching in the stroke.
- Weak shoulder blade stabilizers.
- Imbalance between the internal and external rotators strength of the shoulder causing the humeral head to be pulled from the centre and therefore impinge. Normal strength ratio should be 3:2 (internal rotator:external rotator).
- Lack of mobility of the neck and upper back.
- Inadequate recovery times or increasing training loads too aggressively.

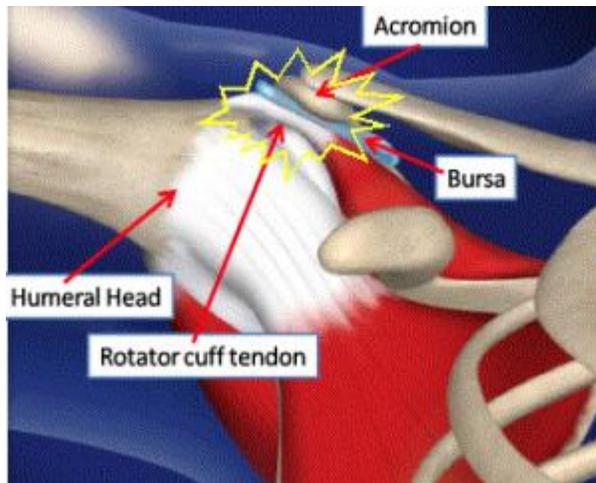
Management of this condition basically means fixing the issues that have caused the problem. These include:

- Ice and anti-inflammatories to settle acute pain and irritation.
- Correction of the swimming stroke technique faults.
- Correction of muscle imbalances around the shoulder, and improving the shoulder blade control and stability.
- Stretching and soft tissue work of tight muscles and joints where indicated. (NB: most swimmers have good shoulder mobility but poor control)

- Adequate recovery and suitable training loads – a constant battle with triathletes!
- Relative rest in some cases or modification of training!

Rehabilitation is a case by case basis depending on the individual's problem, so consult a well trained sports physiotherapist for correct advice and management.

Most of these conditions depending on severity will resolve over a 6-12 week period.



Shoulder impingement.