

How to avoid shoulder injury in your run-up to the Rottnest Channel Swim

Introduction:

Chances are you've experienced shoulder pain or discomfort at some point in your swimming life. If this has ever prevented you from swimming, you will appreciate just how frustrating this can be. Many people will spend hundreds of dollars per year visiting a physiotherapist in the effort to manage their pain, but quite often overlook what is actually causing that pain in the first place! 9 times out of 10, this will be your technique.

The thing is, correcting your technique is not actually that difficult, but you do need to know what to look out for and just as importantly work diligently to improve in these areas. Video Analysis is a great tool for this because it really helps you identify what you personally need to work on.

When training up for a large event like the Rottnest Channel Swim, you need to do everything you can to remain injury-free in order to allow you to swim consistently week-in, week-out. This will ensure a good performance come race day.

The following four simple tips will ensure you avoid developing a shoulder injury from the perspective of swimming technique. We hope they help you!

1. Body Rotation:

Developing a good, symmetrical body rotation through the development of an efficient bilateral breathing pattern can be one of the simplest ways to correct one of the major causes of shoulder injury. A flat body in the water with limited rotation along the long-axis of the spine causes the arms to swing around the side during the recovery phase and in doing so result in large amounts of internal rotation at the shoulder-joint which is the major source of impingement and rotator cuff issues. By using several key drills this can be easily addressed and fixed.

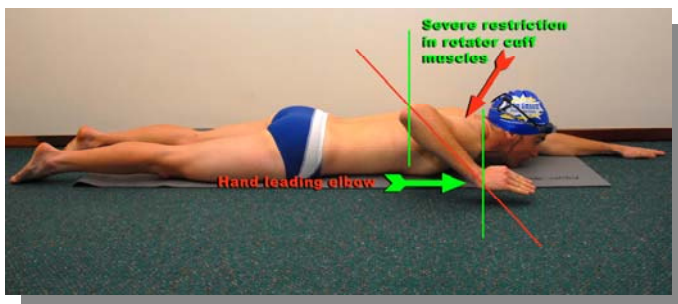


Fig. 1 Flat body position

For more information about our 1-2-1 Video Analysis service, please visit www.swimsmooth.com/videoanalysis.htm

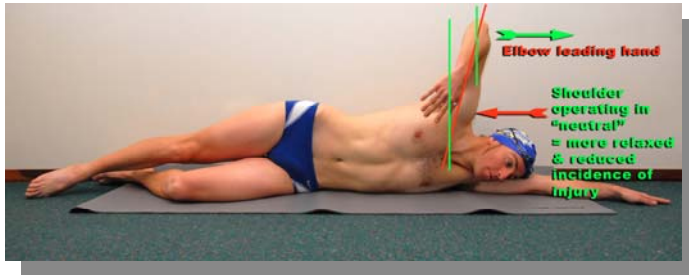


Fig. 2 Body rotation

2. Hand Placement into Water:

Hand placement and pitch into the water can also lead to excessive internal rotation which, from ~ 3200 strokes per hour, can eventually lead to acute pain in the shoulder as an 'over-use' injury. Again if this can be addressed, this need not be something that holds the swimmer back.



Fig. 3 Incorrect (thumb-first) entry



Fig. 4 Correct (finger-tip) entry

3. Swimming Posture:

Many swimmers don't give due attention to how their upper body posture from their daily working lives can really affect how their muscles work when in the pool or ocean. Poor posture can again lead to impingement, often through a severe cross-over at the front of the stroke. By working to improve flexibility in the muscles at the front of the shoulder and improve stabilisation of the muscles at the back of the shoulder (i.e. "shoulder back, chest forward" - avoiding a hunched posture), this can easily be improved. The other plus point of this is that the improved alignment means that the power with which an athlete is able to pull through the water is dramatically improved simply because they are now applying this power in a direction that will send them forward as efficiently as possible.

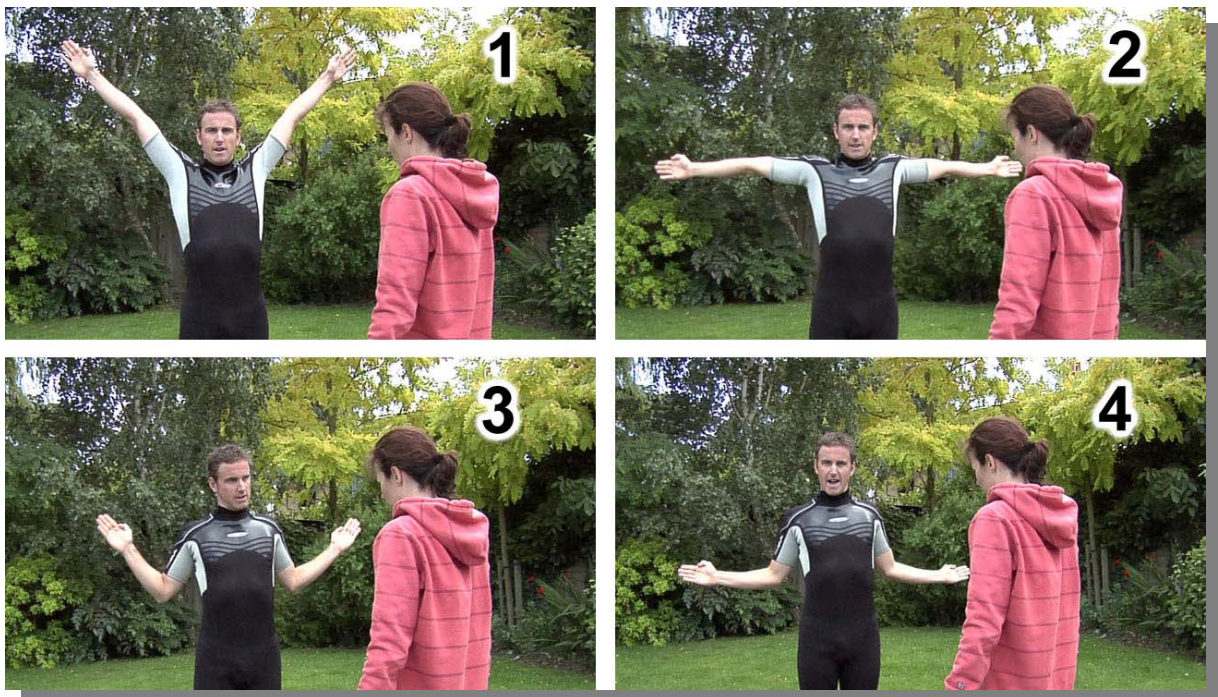


Fig. 5 The "YTWL" scapular retraction exercise that can be performed before each swim



Fig. 6 Enhanced Body Posture

4. Catch and Pull Through:

Without the use of video analysis, many swimmers are unaware of how they pull through under the water. Typically swimmers will pull through with either a dropped-elbow or with a very straight arm. Doing so, loads the shoulder muscles excessively as the majority of the pull-through phase is spent pushing down, rather than pressing back. Working to develop a high elbow catch and pull through in relation to enhanced swimming posture (as explained above) will really help utilise the larger, more powerful muscle-groups of the chest and upper back, rather than relying upon the shoulders quite so much.



Fig. 7 A high elbow catch and pull through

Summary:

A good swimming technique will have the following factors in place...consistently:

1. Bilateral breathing for at least 80% of your training sessions. There are many times (especially in the openwater) when unilateral breathing is the better option, but for a healthy, balanced freestyle stroke, bilateral breathing is the way to go.
2. Good, symmetrical body rotation. This can be worked upon through a range of different body rotation drills, often encompassing the structure use of fins. See www.swimsmooth.com/DVD.htm for drill progression ideas.
3. Hand entry into the water is finger-tip first, not thumb-first despite what you may have been taught when you learnt to swim!
4. Avoiding midline cross-over at the front of the stroke.
5. Improving general upper-body posture can have a major impact on the health of your shoulders!
6. A high elbow (bent arm) catch and pull through.