

Typical scenario, a water polo player sprained his shoulder whilst throwing. Ultrasound scan reveals supraspinatus and anterior deltoid tendon inflammation

### **Acute Phase (2-5 days post-injury)**

- Assisting the affected arm using a wall, ball or the contralateral arm
- Elevate the affected arm forwards
- Elevate the affected arm sideways
- Low load, frequent repetitions, frequent breaks as tolerated by pain and as prescribed by physiotherapy assessment

### **Subacute Phase (3-10 days post-injury)**

- Use a TheraBand (progress from low to high resistance)
- In a lying down position, elbows straight, pull the TheraBand outwards to produce mild and constant tension.
- Elevate the arms holding the TheraBand from the abdomen up to above the head as much as tolerated.
- Progress to doing the same thing against gravity in sitting or standing.

Tie the TheraBand to somewhere higher above the head e.g. staircase. Pull the band down

a) forwards

b) sideways.

progress by moving away from the band to create more tension or opting for a higher resistance TheraBand.

Repetitions/Load in the form of structured sets aimed at increasing pain free movement and introducing strengthening exercises as prescribed by physiotherapy assessment.

### **Stage 3**

Once pain subsides considerably, the athlete may use the TheraBand to create resistance to elevating the affected shoulder

a) forward

b) sideways instead of assisting it.

The athlete trips on the TheraBand as s/he elevates the TheraBand

a) forward

b) sideways.

Progression can be achieved by shortening the TheraBand or using a higher resistance band.

At this stage the athlete can also use weights e.g. dumb bells as resistance. The amount of weight/resistance depends on the athlete's tolerance and progression as prescribed by physiotherapy assessment.

### **Stage 4**

In parallel with the previous stage and moving on, the rehabilitation process shall evolve into more functional and progressive resistance exercises in order to restore the athlete from the injury related to the current complaint but more importantly condition the body segment/s concerned in a way to reduce the risk of future re-injury. It is important that the athlete,

physiotherapist and coaching staff respect the times required for the body's natural process to heal the injury.

The exercises here are structured in sets/reps as indicated by individual physiotherapy assessment with the ultimate aim to replicate/stress the same functional movement/s with which the athlete got injured in the first place.

The type, amount, and timing of exercises at this stage are very individual and specific to the athlete and his/her injury/ies.

Typical advanced and researched exercises which physiotherapists may prescribe are:

- Side planking with arm rotations
- Turkish lifts
- Triceps dips
- Shoulder star excursions

When it comes to younger athletes exercises maybe adapted to be more fun and engaging yet directed to still obtain the desired outcomes. Such examples include:

- Tug of war games
- Pushing/pulling relatively heavy boxes/weights
- Ball bouncing/throws

It is important that rehabilitation occurs under the guidance of a physiotherapist and in consultation with the coaching staff and or medical professionals where and when applicable.