

For sports people such as swimmers, tennis players, and throwing sports the shoulders are a significant engine; an area under constant high stress. Like all joints, the shoulders require optimal position and strength to function optimally. Unfortunately, the structures of our days – lots of time spent sitting at desks – does the shoulders no favours. However, there are some simple conditioning targets to counteract any negative influences on shoulder posture and muscle strength:

- Strengthen external shoulder rotators, scapula retractors (mid trapezius and rhomboids) and anchoring (lower trapezius and serratus anterior) muscles
- Lengthen chest muscles and internal shoulder rotators, and relax the upper trapezius muscles

CONDITIONING ROUTINE:

External shoulder rotation x 10-20/side

Scapula retraction x 10-20

1arm overhead shoulder flexion x 10-20/side

Press-up+ x 6-10

The tempo for all exercises is slow to very slow – controlling the motion of joints (stabilisation) is a primary target for strength conditioning

Exercises require exercise tubing of a suitable grade (level of resistance)

1-3 CIRCUITS REGULARLY (3-5/week), plus stretches:

Pec major stretch x 45s/side

Sleeper stretch x 45s/side

Seated torso rotation stretch x 45s/side

Tennis ball massage for the upper traps x 60s/side

ONCE DAILY

THE TRAPEZIUS MUSCLE PROBLEM:

In many individuals the upper trap muscles are too active and strong while the lower traps are weak and activate poorly. Lower fibres of the trapezius muscle are supposed to act as anchors or antagonists to the fibres of the upper portion of the muscle so that the nett motion of the scapula during arm and shoulder extension is horizontal and inwards (toward the spinal column) and not upwards (towards the neck).

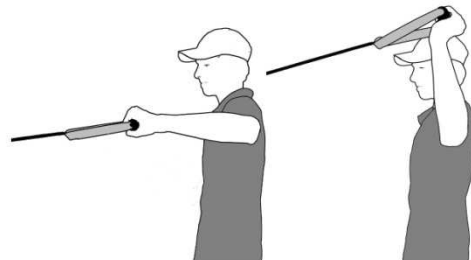
Many target movements express this problem unless the shoulder blades are effectively 'set' and held in the correct position throughout – anchored by the lower fibres of the trapezius muscle.

Strengthening the lower trap muscle and breaking the cycle of stimulation the upper fibres involves understanding how to control the position the shoulder blades. In this program, only the overhead shoulder extension exercise directly targets the lower trapezius fibres.

External shoulder rotation:

Target: external shoulder rotators

HIGH EXTERNAL – set the shoulder & elbow in the high position, set and stabilise the shoulder blade, and then perform slow external shoulder rotations without moving the upper arm or elbow. Body faces the line of the tubing.

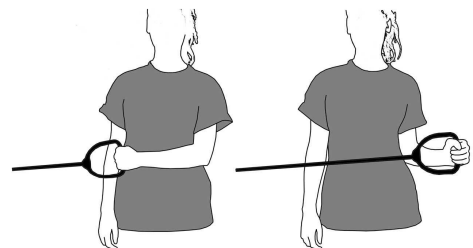


NOTE:

High external shoulder rotation and 1arm shoulder retractions are suitable for individuals who exert good control of the shoulder blades. All others should use a low position external shoulder rotation and 2arm retractions (no moneys)

LOW EXTERNAL – your elbow needs to remain tight to your side in a low position throughout.

15-20 REPS/POSITION



2arm shoulder retractions (no moneys):

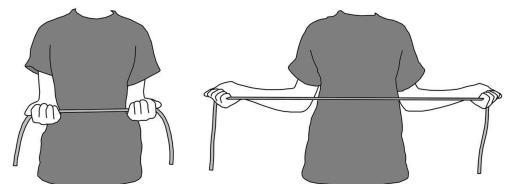
Target: scapula retractors

Grasp a short length of tubing with palms fully supinated (thumbs pointing away from the body).

Set the shoulder blades in the in and downwards '6 o'clock' position, and then perform slow external shoulder rotation.

Return and relax the shoulder blades. Repeat.

10-20 REPS



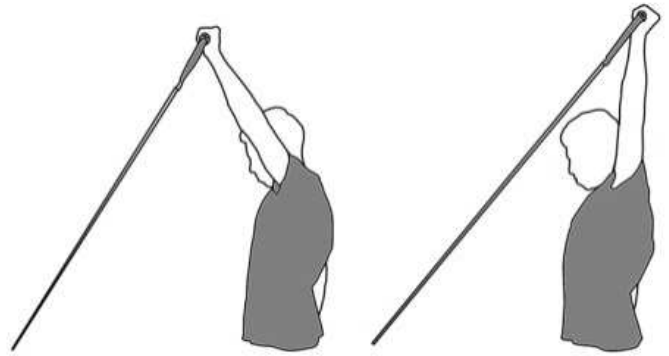
1arm overhead (o/h) flexion:

Target: lower fibres of trapezius muscle

Stand with a straight arm overhead, 30-40deg forward from the vertical line of your body.

Brace your core (pull your belly button in) and extend your arm as far back as possible. Keep the arm straight throughout and do not rotate your shoulders to add more force to the pull.

10-20 REPS/SIDE



Press-up plus (p/u+):

Target: serratus anterior muscle

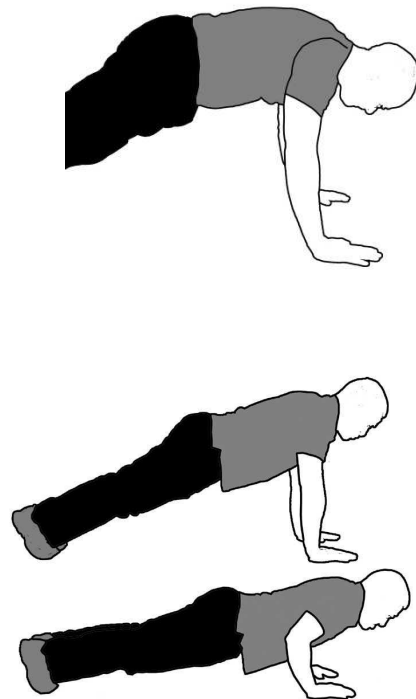
Set in a stable press-up bridge with your hands directly under your shoulders.

Perform a small controlled press-up. It is important that the shoulders remain over your hands throughout. Maintain the shape and position of your lumbar spine: avoid collapsing your pelvis anteriorly (arch in the lower back).

A plus is performed by slowly pushing your shoulder blades further apart and returning them in a controlled fashion to the neutral position – don't let them go all at once.

Note that a plus movement should not involve elevating or shrugging the shoulder blades but is a small protraction motion. Return to the neutral starting position.

6-10 REPS



STRETCHES:

Sleeper stretch:

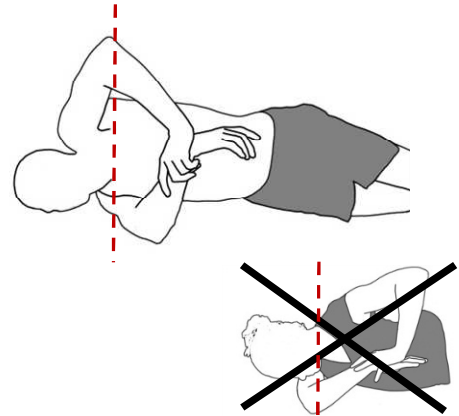
Target: tissues affected by internal shoulder rotation

The shoulder under stretch (at bottom) must be blocked throughout by the weight of your body on top of it.

Gently rotate the lower arm downward to the barrier point.

This stretch is essential for tennis players, swimmers, and throwing sports.

HOLD FOR 45s EACH SIDE

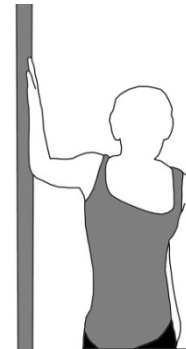


Pec major stretch:

Target: pec major muscle

Place your arm on the wall, as shown, and then gently rotate your body away from the wall until a stretch is felt in the upper chest near the shoulder joint.

HOLD FOR 45s EACH SIDE





Seated torso rotation:

Sit up tall with your legs and hips facing forward. Slowly rotate your torso and reach around with your arms to the barrier point of the stretch.

HOLD FOR 45s EACH SIDE



RELATED READING:

-  *Posture and sport*
-  *Essential exercises for children and sports people*

These and other resources are available free to all at: <http://sportperformance.co.nz/resources.html>