

50+ Scapula Functionality

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Today's blog article is another topic that is prevalent in most gym settings today – the development of the back musculature (which controls the scapula) and what typically gym goers do wrong when trying to develop back strength (which ultimately leads to shoulder impingement issues).

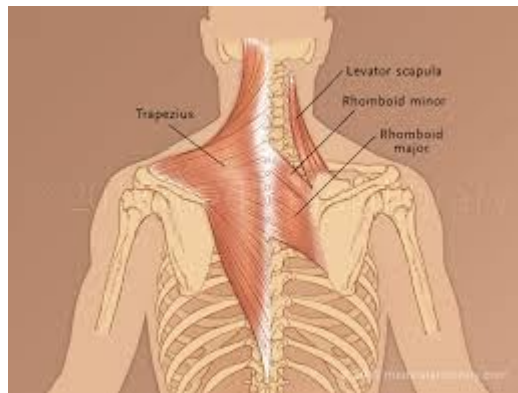


When performing a row exercise (Seated or otherwise), there are three main joints involved in the movement:

1. Elbow flexion (you bend at your elbow as you pull the handles towards you).
2. Shoulder Extension – this is the movement whereby the humerus moves in the sagittal plane down to the anatomical position.
3. Scapulae retraction – the often forgotten 3rd joint movement – and arguably the most important of the three for good shoulder function.

The main technical fault we see with this exercise and other related movements is that the exercise can be completed without the 3rd joint movement (scapulae retraction). It is possible to keep the scapula largely stationary whilst you pull back with your arms – this requires the latissimus dorsi & teres major to take the brunt of the movement (which ultimately can result in over tightness in these muscles (the teres in particular) which can then change the anatomical position of the head of the humerus in the scapula glenoid fossa which then places additional stress upon the rotator cuff muscle groups resulting in tendonitis/tendonosis & mobility issues in the shoulder.

SCAPULA RETRACTORS



The muscles that don't get worked appropriately with this modified technique are the scapulae retractors – the Trapezius, Rhomboid Major and Rhomboid Minor. What can also happen is that the scapula protractors (eg serratus anterior) muscles can then begin to pull the scapulae away from the midline of the body resulting in a poor humeral head position leading to tender shoulders (tendonitis) and limited range of motion (ROM) issues (particularly arms above your head).

The scapula retractors need to be trained in two contraction types – Isometrically (for instance, when trying to complete a heavy deadlift), you don't want your scapulae protracting, you need to hold these two bones isometrically in position to allow you to effectively complete the lift.



The second movement is the concentric contraction of the traps and rhomboids to bring the two scapulae together. This is an extremely important movement as your scapulae should have a large ROM which increases your shoulder ROM and most importantly reduces the potential stress on the

shoulder joint (if you don't have good scapulae ROM, then you often reduce the acromion/humeral head gap when moving your arm and this can lead to impingement of several of your rotator cuff muscles and even the long head of your biceps).



An every day example of the importance of good scapula retraction movement is to try to place your hands behind your head without retracting your scapulae? It is impossible to do!! By not activating your scapulae in retraction you are limiting your ROM in what should be an easy to complete movement.

I recently worked with a client who told me that he could no longer put his tie on for work every day – he couldn't get his hands far enough behind his head to be able to put the loop of the tie over his head. I had him try to scapula retract and he was unable to complete this movement – too many years of shoulder ROM with limited scapula ROM had resulted in him becoming quite limited in shoulder functionality.

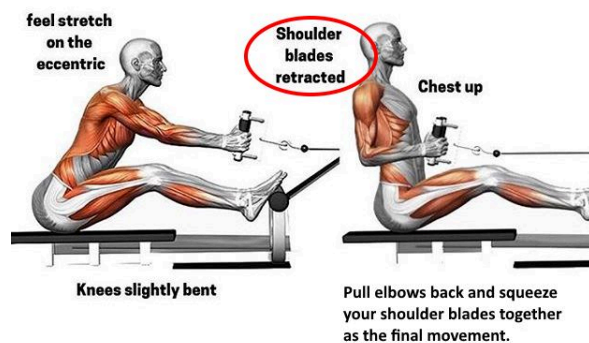
The SOLUTION:



In the above example, I had the client spend some time learning how to scapula retract – this was achieved by having him stand with both arms straight out in front of him and he was to try to bring his shoulders back without bending his elbows.



Secondly I then had him hold onto a band with both hands (arms straight) and he had to horizontally extend his arms without bending elbows until the band pushed against his chest (requiring a high level of scapula retraction).



Finally, with all future rowing exercises, I start with scapula retraction followed immediately by shoulder extension and then elbow flexion (finishing with the client pulling elbows back and squeezing their scapulae together as hard as they can).

This order of joint movements ensures that the client is maximising their capacity to scapula retract which maximises ROM through this important joint.

This program often leads to quick success with clients whom have shoulder impingement issues commenting that their shoulder issues quickly start to reduce as soon as we start them on a scapula retraction program (the results can be even quicker if we add basic rotator cuff band work to the program).

SUMMARY:

1. We often forget to train all our joints to their full capacity.
2. Without training all joints to their full ROM, we limit our future capacity to be functional.
3. Scapula retraction training will not only assist with any shoulder issues but also helps improve your posture as your scapulae will be sitting on your upper back where they are supposed to be, and not creeping forward/up leading to rounded shoulders and poor posture.

REFERENCE:

For a great site that shows a variety of scapula stabilisation exercises - check out [Physio Logic's Exercises to Improve Scapula Stability](#).