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UPPER BODY REHAB ESSENTIALS

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In this article I outline the essential exercise rehabilitation exercises that we use for upper limb injuries and rehabilitation. Each exercise will be detailed step by step to help you understand why they are used, how to do them and what to look for including technique cues, cautions and how to advance the exercises as well as alternatives. This is the essential set of exercises for anyone starting out on shoulder rehab, or needing a solid foundation for scapula and rotator cuff stability and strengthening and wishing to increase their knowledge in the field of rehab.

ITS ALL ABOUT THE MOVEMENT

With all upper limb rehab exercises the emphasis needs to be on making sure your shoulder blade, shoulder joint and arm are all moving correctly and in the right movement sequence. Without this 'scapula-humeral rhythm', most people will struggle to improve with any shoulder injury, or at best, never get to 100%.

After pain or injury, messages to the brain from tissue damage and inflammation activate a 'threat messaging system'. This is interpreted as pain and quickly inhibits the stabilising muscles for the shoulder blade and the shoulder joint. Your brain then starts to compensate with other muscles to get the arm moving. This in turn creates an irregular movement pattern, where without you being that aware, your pulling and pushing movements start to change. If you don't rehabilitate the postural and stabilising muscles early, you can get stuck in a incorrect movement pattern and returning to normal gym exercise and sport proves difficult. Other common problems in rehabilitation that people face are muscle tightness, muscle and tendon weakness and differences in strength and stability left and right. Many people are also doing the wrong exercises, or doing the right exercises incorrectly!

SCAPULAR STABILISATION EXERCISES FIRST

The exercise program needs to start with exercises that activate the stabilising muscles of the shoulder blade, slowly building strength and stability for the shoulder. As the program progresses the focus is on the rotator cuff stability, strength and control. The key is as the exercises get harder and more advanced, to maintain the scapular stability all the way through, and then continue this principle into your overall training regime.

It is crucial to make sure you are performing these exercises correctly for the activation and stabilisation of the shoulder blade.

PRONE SCAPULAR PRESS



This is used for serratus anterior activation, to stop winging, and to build strength in scapula neutral setting, protraction awareness and pressing control. Firstly push down through your hands and push your ribs into your shoulder blades to flatten your scapula. Make sure you get full

protraction without hunching your shoulders or arching your thoracic spine.

If you have wrist tightness in this position you can try it in standing against a wall. To progress try a single arm press against the wall or progress to the arm and leg raise exercise. I would choose this exercise over an open chain serratus ball press.

SINGLE ARM SKYDIVE



This is great for isometric lower trapezius activation, building strength in a scapula depression setting, retraction and depression awareness, and pulling control. You need to watch that you don't do too much retraction or over use the rhomboid or upper trapezius muscles, being

careful of any neck pain or upper trap spasm.

Slowly pull your shoulder off the floor, moving down and back to the opposite hip. Hold this position and rotate your arm outwards and upwards. To make it easier you can try this is sitting and to make it harder position your arm out at 90 degrees.

4 POINT ARM AND LEG RAISE

This works both the scapular muscles as well as activating the rotator cuff muscles isometrically. Start in the prone scapular press exercise position. Once you get into the full protracted position, slowly put all your upper body weight into one arm, being careful not to move away from centre. Think of pushing the ground away from you. Raise the opposite arm forward. Hold this position and make sure you stay fully protracted at the shoulder blade. Next, slowly slide the opposite leg backwards, so your body weight is even between the leg and the arm. Hold this position for 10 seconds.



Alternatively if this exercise is too difficult and you cannot maintain a neutral core or balance evenly, try raising the arm only or try it in standing against wall. To progress add in a theraband around the arm and or perform in a full press up position.

To see this important exercise as a video [click here](#) or go to www.physiofitness.com.au/arm-leg-raise-shoulder-rehab.htm

SINGLE ARM ROW



I would choose this exercise over single arm dumbbell rows and any form of seated row. Preferably use a theraband rather than the cable machines. This exercise promotes and helps correct the scapulo-humeral rhythm, strengthening the lower trapezius and posterior

rotator cuff, and teaches you eccentric retraction control of the shoulder blade. Slowly pull your shoulder down and back first with straight arm, then pull through with arm bending the elbow, squeezing shoulder blade down and back. On the return of the arm, hold the shoulder blade back. Think - "shoulder-blade arm, arm, shoulder-blade". Be careful that your shoulder doesn't go into too much elevation and to don't bend your elbow before movement of shoulder blade, as well as not losing the eccentric holding of the shoulder blade on return. If you have shoulder impingement I suggest you lower the attachment of the band to a more horizontal position.

ROTATIONS



This is the classic Physiotherapy exercise for the rotator cuff and still one of the best. What most people don't know is also teaches isometric scapular stability during the dynamic rotation movement of the shoulder joint. When done correctly it builds isokinetic lateral and medial rota-

tator cuff strength. Keep your arm slightly away from your body,

but don't let your elbow move during the rotation. Your scapular must remain set wide and stabilised (still) through the movement. Be careful not to pull your shoulder blade back, hitch it or let it roll forward. Using a theraband is much more effective for the muscle than cable, or dumbbells. To advance this exercise, use heavier bands and then perform the exercise with your arm abducted out at 80 degrees from both internal and external rotation movements.

BOSU PUSH UP



Once you have mastered the arm & leg raise, you can begin building protraction strength of serratus anterior in scapula dynamic setting by using the BOSU in a push up. It also teaches you protraction awareness and pressing control, and increases the rotator cuff isokinetic

strength. You must be able to do this exercise before returning to any dumbbell press or bench press exercises.

Set your shoulder blades in the same way as the prone scapular press. On the downward movement slowly let your shoulder blades come together, to push up think of pushing the ground away from you and your body to the ceiling, moving your shoulder blades apart. Watch for the position of your head position, upper trap overactivity, and always keep your lumbar spine in neutral. You have to fully protract and flatten your shoulder blades at the top of the movement. If you struggle you can try this on your knees to lessen the load. Alternatively you can try this using a box instead of a BOSU or against a wall.

FURTHER EXERCISES

Once you get through all these exercises, I recommend you seek advice on progression exercises from one of our Physios to help you increase your scapular and rotator cuff muscle strength.

Tim is presenting this topic as an educational workshop at the annual FILEX Fitness Industry Convention on the 27th April 2012. For more info [click here](#) or go to:

<http://www.filex.com.au/filex2012/physio.html#2>



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Tim has over 14 years experience in Physiotherapy and the Fitness Industry. He is also an exercise rehabilitation expert, clinical educator and regular FILEX convention presenter.

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