



## Rotator Cuff

The rotator cuff (RC) group of muscles is the most important stabilizing mechanism acting at the shoulder. Traditionally the RC is trained with exercises emphasizing external rotation (see page 86). These IT exercises have been designed to more accurately train the stabilizing function of the RC. Instead of training muscles which move the shoulder, these train the stability function of the RC.

Set up as Lindsay demonstrates in the upper photo. Keep your elbow exactly straight so that your body weight is supported entirely at the shoulder. Do not allow your elbow to bend at all. Lean into the ball rather than push into the ball - this is critical as your shoulder must become the primary supporter of your body weight - more so even than your feet. In supporting your body weight, the RC is forced to function as a stabilizer, not a mover, of your shoulder.

With your weight supported by your shoulder as you lean into the ball, keep your shoulder blade flat against your back and held slightly downward. Try to prevent your shoulder blade from moving too much during the exercise.

Move the ball from your shoulder using very small movements - circular, elliptical or up and down motions that originate in your shoulder. Again, do not bend at all in your elbow. If your elbow bends, your triceps will become the major muscle supporting your arm and the RC will not be trained.

Perform these small motions until the shoulder feels fatigued. Alternate sides and perform 2 or 3 'sets' on each side. Progress the exercise by:

- standing on one foot
- standing on one foot on a balance board
- closing your eyes
- working with the ball higher on the wall as in the bottom photo



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Similar to the previous two exercises, this is performed using both hands on the ball.

Set up as per the instructions for the previous two exercises. The only difference with this version is that the ball is moved via motion originating in both shoulders simultaneously.

Keep the movement of the ball very small and controlled. Keep your shoulder blades as still as possible - do not let them lift away from your upper back (aka, 'winging'). Progress this exercise as per the previous two on the facing page.



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## Shoulder Girdle Stability

In a 'front walk-out' position, draw your shoulder blades slightly downward and fix them against your upper back - do not let them lift or 'wing' off your torso. Concentrate on your shoulder blades staying firm against your torso as you slowly and carefully shift your weight from side to side. Move your entire body relative to your hands as if it were a solid, unbendable rod. Move slowly over your hands - stop as soon as you feel your shoulder blade begin to lift away from your body. Stop when you feel any fatigue in your shoulder region.

The exercise can be made easier by starting with the ball under your hips; working with your eyes closed or with one foot off the ball makes the exercise more challenging.





## Shoulder Girdle Muscle Imbalance Correction

The next two exercises were developed by Dr. Shirley Sahrmann, a physical therapist whose clinical and research focus has been the relationships between muscle length & strength in multiple muscles acting at joints such as the hip and shoulder.

This is a very useful exercise to maintain good muscle balance around the shoulder girdle. It trains good function in the stabilizing muscles of the shoulder blade and appropriate flexibility in the latissimus muscles.

Lindsay is an ideal model for this exercise as she has some muscle imbalance problems around her shoulder girdle. Her latissimus muscles are very short; this changes the posture of her shoulder joint putting her at increased risk for rotator cuff problems.

Set up as Lindsay demonstrates in the upper photo. The key to this exercise is in keeping the lower back fixed against the wall. To do this, 'pelvic tilt' so that your lower back presses firmly into the wall. Maintaining this posture, slowly raise your arms, keeping your hands **exactly** shoulder width apart. Do not allow your arms to rotate outwards as you approach the top of the movement and do not try to force more movement. Pause for 5 seconds then lower your arms.

If your latissimus is short, you will be unable to place your hands on the wall over your head AND keep your low back fixed to the wall. The bottom photo shows Lindsay's final position. If she keeps her low back against the wall, she can go no further than this. She is limited here by her short latissimus muscles.

Repeat this movement 10 - 15 times and do this up to 5 times each day. If there is any pain associated with this exercise, stop until you have been examined by a licensed physical therapist.

