

# ROTATOR CUFF REMEDIES

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**W**hat are the chances you have had shoulder pain during exercise in the past? A 2006 study from the *British Medical Journal of Clinical Evidence* reported that over 20% of the general population is affected by shoulder pain. Within this group, clinicians found approximately 70% of individuals were in pain from rotator cuff (RTC) issues. Strengthening the RTC can reduce shoulder injuries and improve performance in a sport like squash that places heavy demands on the shoulder.

**WHAT IS THE RTC?** The term RTC is a reference to four muscles that help create a sense of stability within the shoulder joint. Two of the four muscles (infraspinatus and teres minor) work to provide external rotation, stabilizing the back of the joint. Another muscle (subscapularis), stabilizes the joint with internal rotation and compression from the underside of the joint. The fourth muscle (supraspinatus) also provides compression, but from the top of the joint.

**WHAT IS STABILITY?** Imagine a golf ball sitting on a tee. We have a convex object placed perfectly in a concave cup. The deeper the cup is, the more stable the golf ball will be. A shallower cup would create less stability, potentially allowing the golf ball to roll off. This is an analogy commonly used to describe the shoulder and hip joints. The hip has a much deeper cup, creating much more inherent stability. The shoulder, on the other hand, is very shallow which allows for excellent mobility overhead but poor inherent stability. By adding compression via rotator cuff muscle involvement, the joint is much more stable during exercise and activities of daily life.

The rotator cuff also creates shoulder stability by balancing the tone of the joint. The front of the shoulder is often over-developed, particularly in adult males, relative to the backside of the joint. If one side of a joint has more tone, or neural activity, the joint will ultimately be pulled in that direction—creating further asymmetry. A metaphor for this, while an over-simplification, would be trying to place a golf ball on a tee that is not completely vertical. The shoulder should be both mobile and stable. Though these two characteristics can be contradictory, the RTC provides the necessary balance to allow optimal biomechanics of the joint.

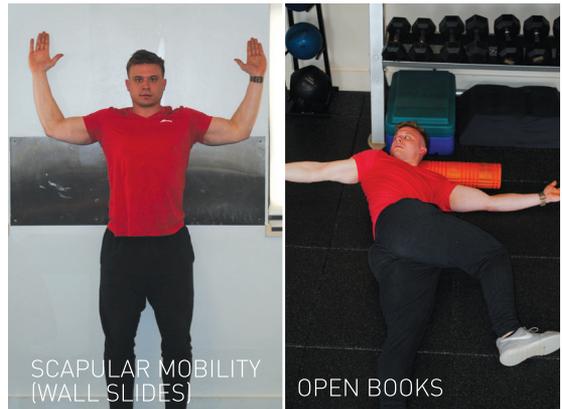
Below are a few exercises and cues worth focusing on to retain the necessary mobility and stability for ideal shoulder hygiene.

**MOBILITY:**

- ▶ **SCAPULAR MOBILITY (WALL SLIDES)**
  - **Cues:** Place the lower back to head flat on the wall; the wrists then slide up and down the wall reaching overhead.
- ▶ **OPEN BOOKS**
  - **Cues:** The knee stays on the floor, follow the thumb the with your eyes, the thumb stays to the floor rotating through the mid-back.

**STABILITY / STRENGTH:**

- ▶ **ASSISTED PULL UPS**
  - **Cues:** Pull your elbows to the floor, big chest at the top, shoulder blades slide down and together.
- ▶ **BAND W'S**
  - **Cues:** Elbows tight, thumbs point behind you, shoulder blades pinch and depress.
- ▶ **TRX ROWS**
  - **Cues:** Bottom of shoulder blades pinch, pull the elbows wide, maintain a straight neck/spine.




**Zarett Rehab & Fitness**, opened in 1989 by Joe Zarett, MPT, is the renowned Philadelphia physical therapy facility specializing in orthopedics, fitness training and racquet sports rehabilitation. Zarett Rehab & Fitness is the official physical therapy provider for US Squash.  
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