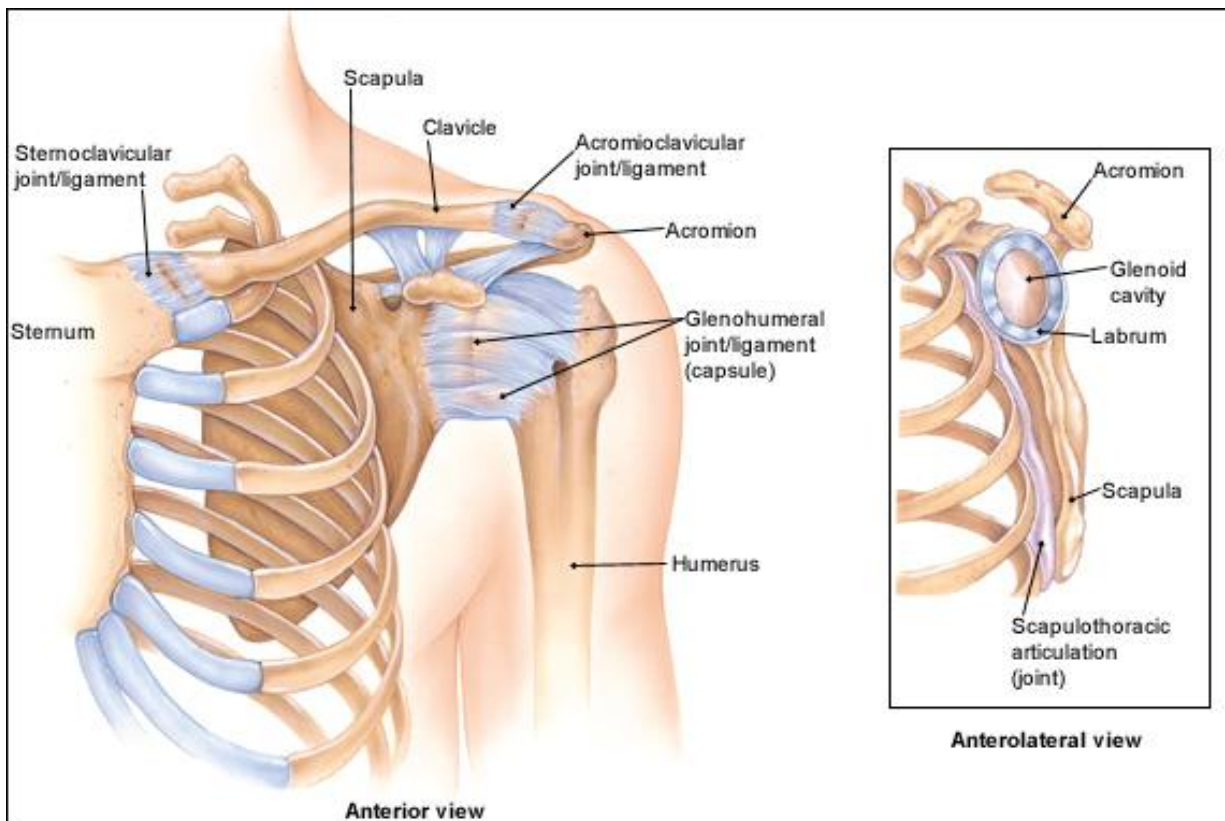
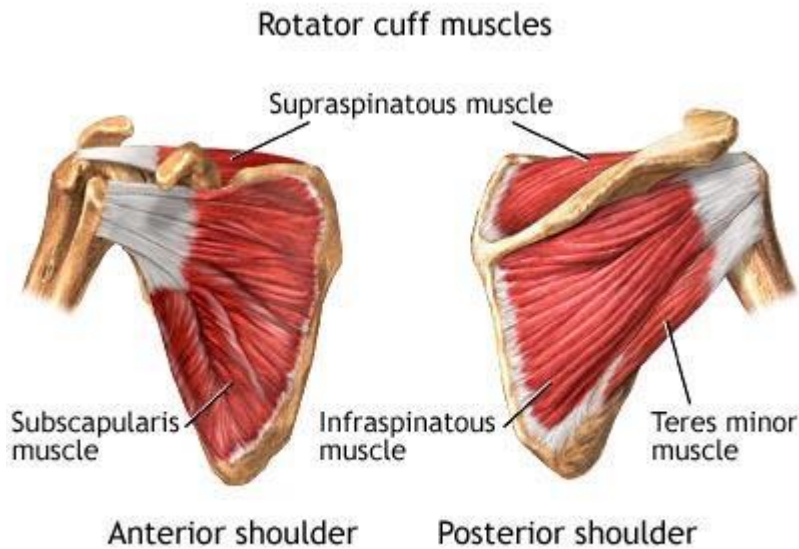


Shoulder Rotator Cuff Syndrome

One of the most common injuries in a variety of sports is rotator cuff syndrome of the shoulder. This injury results from pressure on the rotator cuff muscles from a part of the shoulder blade as the arm is lifted. The rotator cuff is made up of 4 muscles that work together to hold the ball of the shoulder into the joint. These four little muscles have a tough roll fighting the strong deltoid muscle, as its main roll is to pull the ball of the shoulder in the opposite direction.

ANATOMY:



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CAUSES:

Rotator Cuff Syndrome is an over-use injury. Meaning, it does not typically occur as a result of one incident. Young athletes who use their arms overhead for swimming, baseball, volleyball, softball, basketball, and tennis are particularly vulnerable. Pitchers, quarterbacks and swimmers are your most prone.

SIGNS & SYMPTOMS:

In the beginning, symptoms are mild. Most athletes complain of minor pain that's present both with activity and at rest, pain radiating from the front of the shoulder to the side of the arm and sudden pain with lifting & reaching motions. Athletes in overhead sports may have pain when throwing or serving.

You may notice local swelling and tenderness in the front of the shoulder and pain and stiffness when you attempt to lift your arm. There may also be pain when you lower the arm from an elevated position.

As the problem progresses, you may have pain at night and you may lose strength and motion. You may have difficulty with activities that place the arm behind the back, such as buttoning or zippering. In advanced cases, loss of motion may progress to a "frozen shoulder." In acute bursitis, the shoulder may be severely tender. All movement may be limited and painful.

PREVENTION & TREATMENT:

As far as rehabilitation for the injured shoulder, your gold standard of REST, ICE, ANTI-INFLAMMATORIES, & STRENGTHENING EXERCISES are the best key to getting you back to play faster.

Prevention will include, making sure you work on strengthening the rotator cuff muscles. Also, if you concentrate on building strength too much in the chest & shoulder muscles (pectoralis & deltoid), you will create an imbalance and be more likely to develop rotator cuff problems.

Checking out local physical therapy offices & seeing if they offer rotator cuff strengthening programs or sports conditioning programs will also be a good way to prevent a rotator cuff injury. Many athletes need to invest in a good strength & conditioning program in their off-season. The reason for this is because physical therapist will work in conjunction with certified athletic trainers or strength & conditioning specialist to design programs for athletes to make them not only faster & stronger, but to also prevent injuries from occurring. Proper shoulder & core strength is the best preventative measure an athlete can take.

EXERCISES:

Stretching/Range of Motion: (PHASE I)

Wand Flexion

Bring wand directly over head, leading with the unaffected side. Reach back until stretch is felt. Hold 5 seconds. Repeat 10 times. Do 1-2 sets per session and 1-2 sessions per day.

Wand Abduction

Holding the wand with the injured hand palm up, push wand directly out to side, leading with other hand palm down, until stretch is felt. Hold 5 seconds. Repeat 10 times. Do 1-2 times per day.

Wand Extension (Standing)

Stand holding the wand behind your back. Raise arms as far as possible, keeping your torso up tall. Hold for 5 seconds. Repeat 10 times. Do 1-2 times per day.

Towel Stretch (for interior rotation)

Pull the affected arm up behind the back by pulling the towel up with the other arm. Hold 10 seconds. Do 10 times. Do 1-2 times per day.

Wand External/Internal Rotation

Holding the wand with the injured arm palm up, push out from body with the other hand, palm down. Keep both elbows bent. When stretch is felt, hold for 5 seconds. Repeat to the other side, leading with the same hand. Keep elbows bent. Repeat 10 times. Do 1-2 times per day.

Arm Sliding (standing)

Stand against wall, upper arms at shoulder level, elbows bent to 90°. Raise arms over head, keeping arms against wall. Repeat 10 times. Do 1-2 times per day.

Isometric Strengthening: (PHASE II)**Isometric Flexion**

Using wall for resistance, press affected fist into ball or pillow using light pressure. Hold 10 seconds. Do 1-2 times per day.

Isometric Extension

Using wall for resistance, press back of affected arm into ball using light pressure. Hold 10 seconds. Repeat 10 times. Do 1-2 times per day.

Isometric Abduction

Using wall for resistance, press affected arm into ball using light pressure. Hold 10 seconds. Repeat 10 times. Do 1-2 times per day.

Isometric Adduction

Using body for resistance, gently press affected arm into ball using light pressure. Hold 10 seconds. Repeat 10 times. Do 1-2 times per day.

Isometric External Rotation

Using wall to provide resistance, and keeping affected arm at side, press back of hand into ball using light pressure. Hold 10 seconds. Repeat 10 times. Do 1-2 times per day.

Isometric Internal Rotation

Using door frame for resistance, press palm of affected hand into ball using light pressure. Keep elbow in at side. Hold 10 seconds. Repeat 10 times. Do 1-2 times per day.

Progressive Resistance Training: (PHASE III)**Resisted Flexion (tubing)**

Hold tubing with affected arm at side. Pull forward and up. Move shoulder through pain-free range of motion. Repeat 10-30 times per set. Do 1-2 sets per session. Repeat 1-2 times per day.

Resisted Abduction (tubing)

Hold tubing with affected arm across body. Pull up and away from side. Move through pain-free range of motion. Repeat 10-30 times per set. Do 1-2 sets per session. Repeat 1-2 times per day.

Resisted Extension (tubing)

Hold tubing in affected hand, arm forward. Pull arm back, elbow straight. Repeat 10-30 times per set. Do 1-2 sets per session. Repeat 1-2 times per day.

Resisted Adduction (tubing)

Hold tubing in affected hand, arm out. Pull arm toward opposite hip. Do not twist or rotate trunk. Repeat 10-30 times per set. Do 1-2 sets per session. Repeat 1-2 times per day.

Resisted Horizontal Abduction (tubing)

Hold tubing in affected hand, elbow straight, arm in, parallel to floor. Pull arm out from side through pain-free range. Repeat 10-30 times per set. Do 1-2 sets per session. Repeat 1-2 times per day.

Resisted Horizontal Adduction (tubing)

Hold tubing in affected hand, elbow straight, arm out, parallel to floor. Bend elbow 90° then pull arm across body through pain-free range. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Resisted Shoulder Retraction (tubing)

With the band looped around each hand, and arms straight out in front, stretch the band across the chest & pull your shoulder blades together. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Resisted External Rotation in Neutral (tubing)

Sit or stand, tubing in both hands, elbows at sides, bent to 90°, forearms forward. Pinch shoulder blades together and rotate forearms out. Keep elbows at sides. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Resisted Functional Throwing (tubing)

Hold tubing behind, with affected hand. Pull forward as though serving in tennis or throwing a ball. Slowly bring back to starting position. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Scapular Protraction at 90° Flexion (dumbbells or soup cans)

Hold 1-10 pound weights, attempt to push arms up toward ceiling, keeping elbows straight and back against floor. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Resisted External Rotation – Side-lying (dumbbells or soup cans)

Holding a 1-10 pound weight, towel under armpit, elbow at 90°, raise affected forearm toward the ceiling, keeping that 90° angle in elbow. Lower slowly to starting position. Keep pressure on towel at all times & elbow by side. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Resisted Internal Rotation – Side-lying (dumbbells or soup cans)

Holding a 1-10 pound weight while lying on your affected side, and elbow is bent at 90°, raise affect forearm toward body, keeping elbow at side and bent at 90°. Repeat 10-30 times per set. Do 1-2 sets per session and 1-2 times per day.

Resisted Extension – Prone (dumbbells or soup cans)

Hold 1-8 pound weights, arms back, forehead on a rolled hand towel, raise arms from floor, keeping elbows straight. Repeat 20-30 times per set. Do 1-2 sets per session and 1-2 sessions per day.

Resisted Scapular Retraction – Prone (dumbbells or soup cans)

Holding 1-8 pound weights, keep arms out from sides and elbows bent. Pull elbows back, pinching shoulder blades together. Repeat 20-30 times per set. Do 1-2 sets per session and 1-2 sessions per day.

Resisted Horizontal Abduction – Prone (dumbbells or soup cans)

Holding 0-8 pound weights, raise arms out from sides, pinching shoulder blades. Keep elbows straight, thumbs up (if that increases pain, point thumbs down). Repeat 20-30 times per set. Do 1-2 sets per session and 1-2 sessions per day.

Resisted Scapular Flexion – Prone (dumbbells or soup cans)

Holding 0-8 pound weights, raise both arms forward. Keep elbows straight & shoulder blades pulled down. Repeat 20-30 times per set. Do 1-2 sets per session and 1-2 sessions per day.