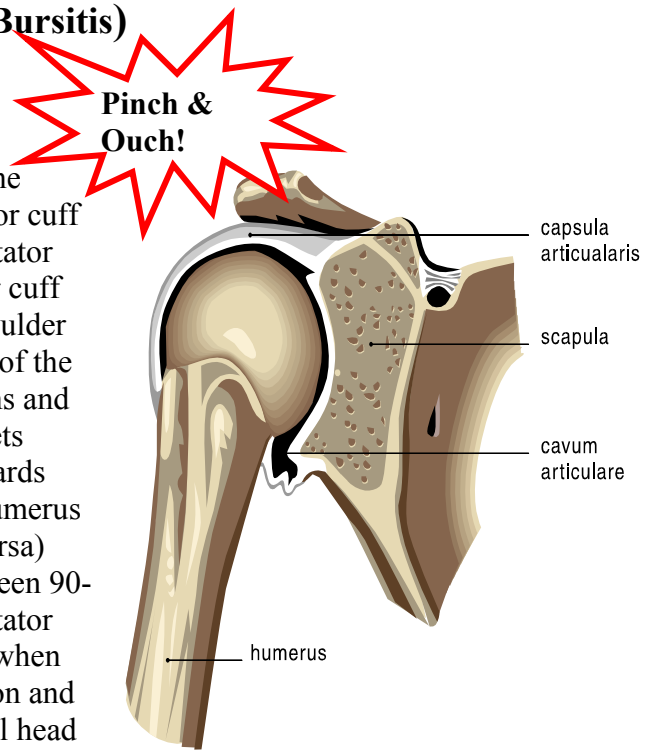
SHOULDER IMPINGEMENT SYNDROME
(Rotator Cuff Tendinitis, Bursitis)



♦ What is it?

Impingement syndrome is characterized by pain in the shoulder due to inflammation of the tendons of the rotator cuff or the bursa (subacromial bursa) that sits between the rotator cuff and the roof of the shoulder (acromion). The rotator cuff consists of four muscles that surround the ball of the shoulder (humeral head). The subacromial bursa sits over the top of the cuff, and functions to reduce friction between the tendons and the bone of the acromion. Normally the humeral head gets closer to the acromion when the shoulder is moved upwards overhead. The subacromial space (space between the humerus and acromion containing the rotator cuff tendons and bursa) decreases significantly when the arm is elevated to between 90-120 degrees (to shoulder level and above). When the rotator cuff becomes inflamed because of injury or overuse, or when the bursa becomes inflamed, then both the swollen tendon and swollen bursa may become pinched between the humeral head and the acromion, resulting in pain.

♦ Signs and Symptoms of this Condition

- Pain in the shoulder that often refers out into the deltoid muscle/upper arm.
- Pain that is worse with reaching overhead or lifting.
- Pain in the shoulder when sleeping on the side of the painful shoulder.
- Tenderness over the shoulder just off the edge of the acromion bone.
- Loss of strength.
- Limited motion of the shoulder, especially reaching behind (such as to back pocket or to unhook bra) or across your body.
- Crepitus (crackling, popping, grinding sound and feeling) when moving the arm.

♦ Causes

- Repetitive overhead motions (overhead weight lifting activities such as military press, lat pull-downs, lateral raises, etc. also activities such as over head painting, lifting, and other types of overhead work).
- Strain from sudden increase in amount or intensity of activity.
- Direct blow or injury to the shoulder from falling on an outstretched arm.
- Aging, degeneration of the tendon with normal use.
- Acromial or AC joint bone spurs.

What Can I do to Prevent Shoulder Impingement?

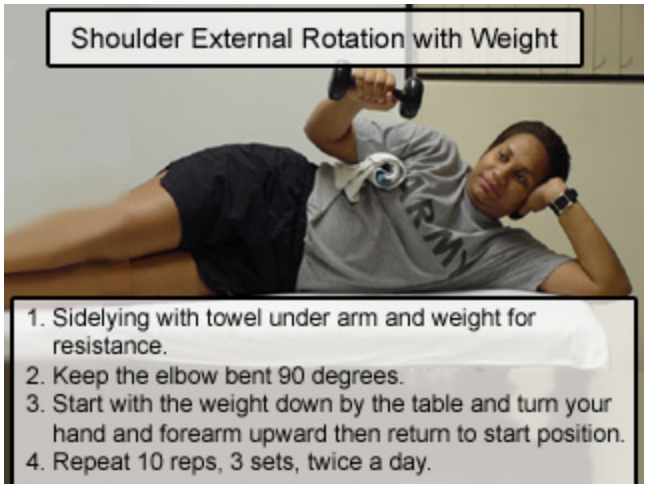
- Appropriately warm up and stretch before practice or competition.
- Allow time for adequate rest and recovery between practices and competition.
- Avoid overhead weightlifting (military press, lat pulldowns, overhead tricep strengthening, etc.)
- Avoid repetitive overhead work/lifting.
- Maintain appropriate conditioning:
    - Cardiovascular fitness
    - Shoulder flexibility
    - Muscle strength and endurance
- Use proper technique when lifting weights.

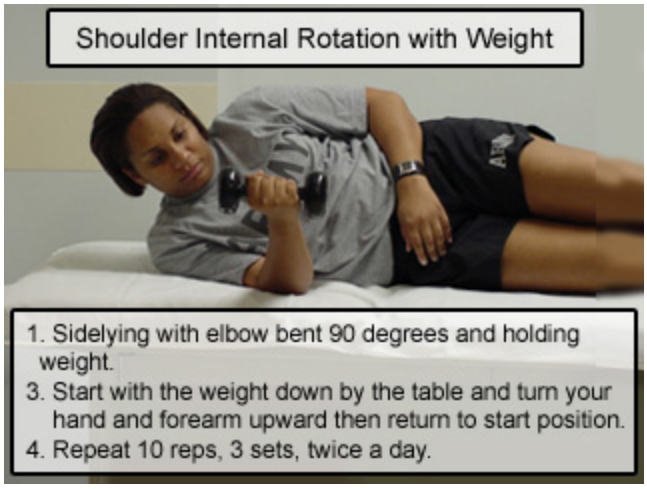
Prognosis

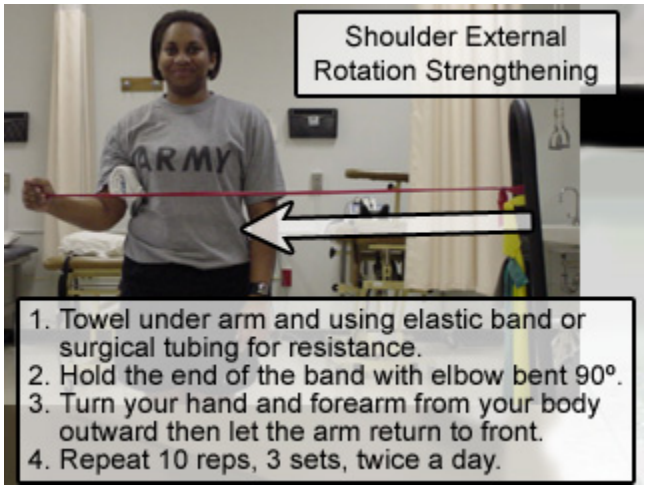
- This depends upon how long it has been going on
    - Acute cases identified and treated appropriately (described below) can resolve in 6-8 weeks.
    - Chronic cases that have been allowed to continue for months or years in an attempt to "work through" the pain can take many months (6-8 months or more) to resolve and may require more invasive measures to resolve the symptoms such as steroid injection or surgery.

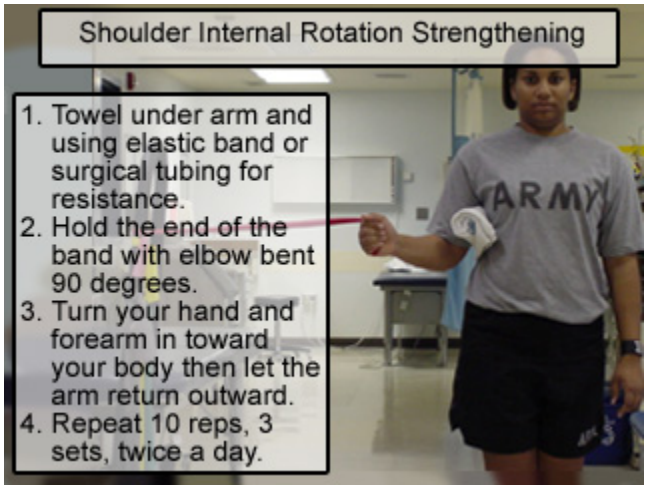
Treatment

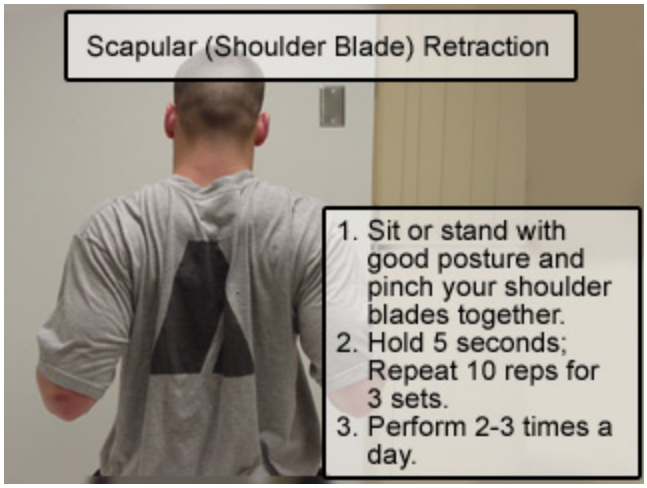
- Rest – avoid overhead motions or any motion that is painful; avoid weightlifting, push-ups or pull-ups.
- Ice over the shoulder 15-20 minutes 1-2 times per day.
- Anti-inflammatory medication (aspirin, ibuprofen, etc) may be helpful in reducing both pain and inflammation.
- Rotator cuff exercises and scapular (shoulder blade) muscle exercises. **See Below** These should be performed PAINFREE.


Shoulder External Rotation with Weight
1. Sidelying with towel under arm and weight for resistance.
2. Keep the elbow bent 90 degrees.
3. Start with the weight down by the table and turn your hand and forearm upward then return to start position.
4. Repeat 10 reps, 3 sets, twice a day.


Shoulder Internal Rotation with Weight
1. Sidelying with elbow bent 90 degrees and holding weight.
3. Start with the weight down by the table and turn your hand and forearm upward then return to start position.
4. Repeat 10 reps, 3 sets, twice a day.


Shoulder External Rotation Strengthening
1. Towel under arm and using elastic band or surgical tubing for resistance.
2. Hold the end of the band with elbow bent 90º.
3. Turn your hand and forearm from your body outward then let the arm return to front.
4. Repeat 10 reps, 3 sets, twice a day.


Shoulder Internal Rotation Strengthening
1. Towel under arm and using elastic band or surgical tubing for resistance.
2. Hold the end of the band with elbow bent 90 degrees.
3. Turn your hand and forearm in toward your body then let the arm return outward.
4. Repeat 10 reps, 3 sets, twice a day.


Scapular (Shoulder Blade) Retraction
1. Sit or stand with good posture and pinch your shoulder blades together.
2. Hold 5 seconds; Repeat 10 reps for 3 sets.
3. Perform 2-3 times a day.