

SHOULDER IMPINGEMENT SYNDROME

(ROTATOR CUFF TENDINITIS, BURSITIS)

DESCRIPTION

Pain in the shoulder due to inflammation of the tendon(s) of the rotator cuff and/or the bursa (subacromial bursa) that sits between the rotator cuff and roof of the shoulder (acromion). The rotator cuff is a series of 4 muscles that surround the ball of the shoulder (humeral head). The subacromial bursa sits over the top of the cuff allowing for the cuff tendons to slide near the roof of the shoulder without undue friction. Normally, the humeral head gets closer to the acromion when the shoulder is moved, particularly as you reach overhead. When the rotator cuff becomes inflamed due to 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. This may be a grade 1 or 2 strain of the tendon. A *Grade 1 strain* is a mild strain. There is a “slight pull” without obvious tearing (it is microscopic tendon tearing). There is no loss of strength and the tendon is the correct length. A *Grade 2 strain* is a moderate strain. There is tearing of fibers within the substance of the tendon or where the tendon meets the bone or muscle. The length of the whole muscle-tendon-bone unit is increased, though there usually is decreased strength. A *grade 3 strain* is a complete rupture of the tendon. (see Rotator Cuff Tear).

FREQUENT SIGNS AND SYMPTOMS

- Pain about the shoulder, often at the outer portion of the upper arm. The pain is worse with shoulder function, especially when reaching overhead or lifting.
- Occasionally aching when not using your arm. Often there is pain that awakens you at night.
- Occasionally tenderness, swelling, warmth and/or redness over the of the shoulder.
- Loss of strength
- Limited motion of the shoulder, especially reaching behind (back pocket, bra) or across your body
- Crepitation (a crackling sound) when moving the arm
- Biceps tendon pain, inflammation (in the front of the shoulder), worse with bending the elbow or lifting

CAUSES

- Strain from sudden increase in amount or intensity of activity
- Direct blow or injury to the shoulder.
- Aging, degeneration of the tendon with normal use
- Acromial spur

RISK INCREASES WITH

- Contact sports such as football, wrestling, boxing
- Throwing sports, such as baseball, tennis or volleyball
- Weight-lifting and body building
- Heavy labor work
- Previous injury to rotator cuff, including impingement
- Poor physical conditioning (strength/flexibility)
- Increasing age
- Spurring of the acromion

EXPECTED OUTCOME

Usually curable within 6 weeks if treated appropriately with conservative treatment and resting the affected area. Healing is usually quicker if caused by a direct blow (versus overuse).

POSSIBLE COMPLICATIONS

- Healing time will be prolonged if not appropriately treated or if not given adequate time to heal
- Chronically inflamed tendon causing persist pain with activity that may progress to constant pain (with or without activity)
- Shoulder stiffness, frozen shoulder or loss of motion
- Rotator cuff tendon tear
- Recurrence of symptoms, especially if return to activity is too soon, with overuse, direct blow, or poor technique.

GENERAL TREATMENT CONSIDERATIONS

Initial treatment consists of medication and ice to relieve the pain, stretching and strengthening exercises and modifying the activity which initially cause the problem to occur. These all can be carried out at home, though referral to a physical therapist or athletic trainer may be recommended. An injection of cortisone to the area around the tendon (within the bursa) may be recommended. Surgery to remove the chronically scarred bursa and spur from the acromion may be necessary and usually only considered after at least 3 months of conservative treatment. Surgery may be performed arthroscopically or open. Return to full activity usually requires 3 months.

MEDICATION

- Non-steroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take if surgery planned in 7 days or less), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact him/her immediately if any bleeding, stomach upset or an allergic reaction occurs.
- Pain relievers are usually not prescribed for this condition. If prescribed by your physician, use only as directed and only as much as you need.
- Cortisone injections reduce inflammation, and anesthetics temporarily relieve pain. There is a limit to the number of times cortisone may be given because it may weaken muscle and tendon tissue.

HEAT AND COLD:

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 - 15 minutes every 2-3 hours for inflammation and pain, and immediately after any activity which aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used prior to performing stretching and strengthening activities prescribed by your physician, physical therapist or athletic trainer. Use heat pack or a warm soak.

NOTIFY OUR OFFICE IF

- Symptoms get worse or do not improve in 4-6 weeks despite treatment
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.