

## Impingement Syndrome

Impingement syndrome is a name for many conditions that affect the structures of the shoulder. Other names describing this syndrome are rotator cuff tendonitis, bursitis or painful arc syndrome. In this condition, the rotator cuff tendons, the biceps tendon and subacromial bursa may be inflamed. All of these structures can be “impinged” or pinched during overhead motions between the upper arm bone (humerus) and a portion of the shoulder blade (scapula), called the acromion. Impingement causes a repetitive microtrauma to the surrounding tissues, resulting in inflammation to the structures involved. It is a common overuse injury in sports such as baseball, softball, tennis, golf and swimming.

### Signs and symptoms

- Pain in front or on the top of the shoulder during and/or after overhead activity
- A painful arc of shoulder motion
- Shoulder weakness with overhead activity
- Pain that awakens one at night

### Causes

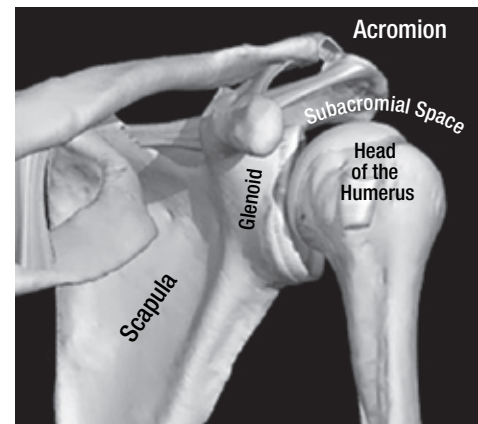
- Chronic, repetitive overhead activities related to sports or occupation
- Sudden increases or changes in overhead activities
- Tight shoulder muscles that limit shoulder movements
- Fatigue of shoulder muscles during prolonged overhead activities
- Acute trauma to the shoulder area that initiates an inflammatory process

### Treatment

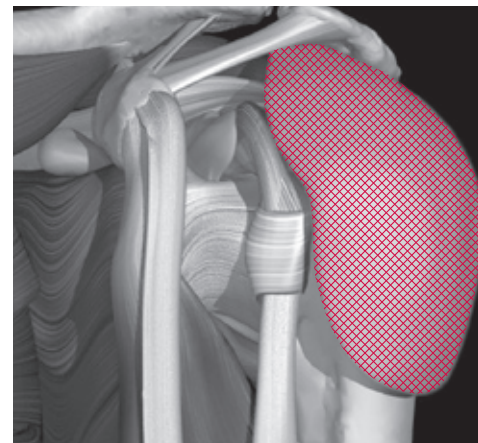
- Decrease, modify or rest from overhead activities
- Thorough warm-up and stretching prior to activity
- Ice applied to the shoulder after activity for 15-20 minutes
- Anti-inflammatory medication as prescribed by a physician
- Appropriate therapeutic exercise

### Rehabilitation

- Resistance exercises for weakened muscles
- Stretching of the shoulder and upper body muscles
- Changes in activity technique



*The articulation of the upper arm (humerus) and the shoulder blade (scapula) create the glenohumeral joint. Note the subacromial space below the acromion or outcropping of the shoulder blade.*



*In this illustration, the subacromial bursa is identified in red. This bursa, or fluid filled sac, can become inflamed when pinched or impinged in overhead positions.*