



# ***ANTERIOR SHOULDER INSTABILITY***

## **DESCRIPTION**

Injury to the shoulder joint so that the upper arm (humerus) is displaced from its normal position in the center of the socket (glenoid) and the joint surfaces no longer touch each other. The most common dislocation is anterior (over 90%), where the humerus is in front and below the glenoid. Because the shoulder has more motion than any other large joint in the body, it is the most commonly dislocated large joint. The shoulder is like a golf ball on a golf tee. A few of the many factors that provide shoulder stability include the cartilage rim (labrum) that helps provide depth to the socket, the capsule with thickenings which are the ligaments of the shoulder, and the muscles of the rotator cuff which surround the shoulder. To dislocate the shoulder, the rotator cuff muscles need to be stretched or torn, the capsule and ligaments need to be stretched, and often the labrum is pulled off the glenoid. Subluxation of this joint is also common in sports and is where the ball of the humerus does not stay centered in the socket with shoulder motion and feels like it wants to slip out of place. Subluxation of the shoulder causes overuse of the rotator cuff muscles trying to keep the shoulder in the center of the socket resulting in rotator cuff symptoms. Further, with fatigue of the rotator cuff muscles, as the deltoid muscle contracts, this may push the humeral head up to the roof of the shoulder, pinching the subacromial bursa and supraspinatus tendon (part of the rotator cuff).

## **FREQUENT SIGNS AND SYMPTOMS**

- Severe pain in the shoulder at the time of injury
- Loss of shoulder function and severe pain when attempting to move the shoulder
- Feeling like your shoulder wants to slip out of place
- Tenderness, deformity (fullness in the armpit and prominent roof of the shoulder), and swelling
- Pain with moving the shoulder, especially reaching overhead, heavy lifting, pain that awakens at night, loss of strength
- Numbness or paralysis in the upper arm and deltoid muscle from pinching, stretching or pressure on the blood vessels or nerves
- Crepitation (“crackling”) feeling and sound when the injured area is touched or with shoulder motion
- Decreased or absent pulse at the wrist because of blood vessel damage (rare).

## **CAUSES**

- Direct blow to the shoulder or backward force on an extended arm or elbow
- Repetitive throwing motion or swimming
- End result of a severe shoulder sprain
- Congenital (born with) abnormality, such as a shallow or malformed joint surface
- Powerful muscle twisting or violent muscle contraction.
- Some people can willfully produce a recurrent dislocation

## **RISKS INCREASES WITH**

- Contact sports (football, wrestling and basketball)
- Sports that involve repetitive overhead activity such as baseball, volleyball, swimming
- Sports that require forceful lifting, hitting or twisting
- Previous shoulder dislocations or sprains
- Shoulder fracture
- Repeated shoulder injury of any kind
- Poor physical conditioning (strength/flexibility)

## **EXPECTED OUTCOME**

With appropriate reduction (repositioning of the joint) and immobilization for 3 - 6 weeks, healing of ligaments can be expected in 6 weeks. The potential for repeated shoulder dislocations depends on the amount of trauma necessary to cause the first dislocation, age at the time of injury (younger age at the time of first dislocation has higher risk of recurrent dislocations - if under 18 years old at first dislocation, more than 90% risk of another dislocation of the same shoulder), and associated shoulder injury. If customary treatment does not prevent a recurrence, then athletic activities should be modified until surgery can be performed to cure the problem.

## **POSSIBLE COMPLICATIONS**

- Damage to nearby nerves or major blood vessels causing temporary or permanent weakness, paralysis, numbness, coldness, and paleness
- Fracture or joint cartilage injury due to the dislocation or reduction of the dislocation.
- Prolonged healing or recurrent dislocation if activity is resumed too soon
- Rotator cuff tear (usually after age 40 at time of first dislocation)
- Repeated shoulder dislocations, particularly if the previous dislocation is not healed completely or appropriately rehabilitated. Most recurrent dislocations are caused by repeated injury, though with increasing number of dislocations, less force is necessary to cause a dislocation.
- Unstable or arthritic shoulder following repeated injury, or if there is associated fracture.

## **GENERAL TREATMENT CONSIDERATIONS**

After reduction (repositioning of the bones of the joint) by trained medical personnel, treatment consists of ice and medications to relieve pain. Reduction usually can be performed without surgery, though surgery is rarely needed to restore the joint to its normal position, as well as to repair ligaments. Immobilization by sling or immobilizer for 3-8 weeks is usually recommended to protect the joint while the ligaments heal. After immobilization, stretching and strengthening of the stiff, injured and weakened joint and surrounding muscles (due to the injury and the immobilization) is necessary. This may be done with or without the assistance of a physical therapist or athletic trainer. Surgery is uncommonly recommended after the first dislocation to tighten the shoulder ligaments and repair the labrum. Surgery is usually reserved for those who have recurrent dislocations despite appropriate rehabilitation. This can be done arthroscopically or through a standard incision.

## **MEDICATION**

- General anesthesia or muscle relaxants may be used to help make the joint repositioning possible
- 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.
- Strong pain relievers may be prescribed as necessary. Use only as directed and only as much as you need.

## **COLD THERAPY:**

Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 - 15 minutes every 2-3 hours for inflammation and pain after injury and later, immediately after any activity which aggravates your symptoms. Use ice packs or an ice massage.

## **NOTIFY OUR OFFICE IF:**

- Pain, tenderness or swelling worsens despite treatment
- You have a recurrent (another) dislocation
- You experience pain, numbness, or coldness in the arm
- Blue, gray or dusky color appears in the fingernails
- New, unexplained symptoms develop. Drugs used in treatment may produce side effects.

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