STANFORD
SCHOOL OF MEDICINE
Stanford University Medical Center

DEPARTMENT OF ORTHOPEDIC SURGERY
SPORTS MEDICINE
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POSTERIOR 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. This uncommon dislocation is posterior, where the humerus is behind 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. Posterior subluxation of the shoulder is more common than dislocation and both are much less common than anterior dislocation. Subluxation 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.

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 in the back of the shoulder, deformity (fullness in the back of the shoulder), and swelling
- Inability to turn arm outward
- Numbness or paralysis in the upper arm and deltoid muscle from pinching, stretching or pressure on the blood vessels or nerves
- Decreased or absent pulse at the wrist because of blood vessel damage (rare).

CAUSES

- Direct blow to the shoulder or backward force on an outstretched arm (such as blocking in football)
- 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, (epileptic seizure or electrocution).
- Some people can willfully produce a recurrent dislocation

EXPECTED OUTCOME

With appropriate reduction (repositioning of the joint) and immobilization for 3 - 6 weeks, healing of ligaments can be expected in 6 weeks. Repeated shoulder dislocations depends on the amount of trauma necessary to cause the first dislocation, age at the time of injury, and associated shoulder injury (bony defect). Recurrent dislocation is less common than after anterior dislocation. If customary treatment does not prevent a recurrence, then athletic activities should be modified until surgery can be performed to cure the problem. Non-operative treatment is successful in 70% - 90% of patients

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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 if activity is resumed too soon
- Rotator cuff tear
- Repeated shoulder dislocations, particularly if the previous dislocation is not healed completely or appropriately rehabilitated. Most recurrent dislocations are caused by repeated injury
- 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 necessary to restore the joint to its normal position, as well as to repair ligaments. Immobilization by brace or cast or immobilizer for 6-8 weeks is 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. Seventy to 90% of patients with posterior subluxation have relief with non-operative treatment. 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 6 months of appropriate rehabilitation. This can be done arthroscopically or through a standard incision. Surgery is not as successful as for anterior dislocations

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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