SHOULDER, KNEE & SPORTS MEDICINE

Shoulder Dislocations and Bony Bankart Lesions

The shoulder is the most mobile and the most commonly dislocated large joint in the body. Dislocation means that the joint is moved out of position, such that the joint surfaces at the ends of the bones are no longer in contact. In the shoulder, most dislocations are anterior (moving forward from the body); however, they can occur in several directions. When a dislocation occurs, the soft tissues that stabilize the shoulder can be torn and the bone that forms the socket can also be broken at the same time.

Traumatic dislocations of the shoulder can result in a Bankart lesion (tear). The head of the humerus (ball of upper arm bone) is held in proper relation to the glenoid (socket of the shoulder joint) by the rotator cuff muscles, labrum, and ligaments. Ligaments run from the glenoid to the humeral head and they blend with fibrous tissue called the capsule that encloses the entire joint. When the humeral head is forced forward in a dislocation, the soft tissues stretch or tear. In some cases, bone is fractured off the glenoid rim, resulting in a bony Bankart lesion.



X-ray of a patient with a bony Bankart facture of the glenoid (socket), secondary to shoulder dislocation.



3-D scan of the same patient more clearly demonstrating the fracture.



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Frequent Signs and Symptoms

- Severe pain in the shoulder at the time of injury
- Loss of function and pain with shoulder motion
- Apprehension, feeling like the shoulder is going to "pop out"
- Occasionally, aching when not using the arm
- Tenderness and swelling
- Occasional loss of strength or difficulty raising the arm
- Occasional numbness and tingling in the arm after injury

Etiology (Causes)

- Direct blow to the shoulder or force on extended arm
- Powerful, violent muscle contraction
- Force applied to the arm in overhead position, pushing it behind the plane of the body

Risk Factors

- Participation in contact sports (football, wrestling, basketball, etc.)
- Activities with increased risk of falls and/or injury
- Previous shoulder dislocations or injuries
- Poor physical conditioning (strength and flexibility)

Prevention

- Appropriately warm up and stretch before activity
- Allow time for adequate rest and recovery between bouts of exercise
- Proper preseason conditioning that is task specific (overhead throwing or hitting, etc.)
- Maintain appropriate conditioning:
 - Cardiovascular fitness
 - Shoulder flexibility
 - Muscle strength and endurance, particularly of the rotator cuff and scapular muscles
- Use proper technique
- If participating in contact sports, wear properly fitted protective equipment

Outcomes

Younger patients with shoulder dislocations have a higher incidence of a repeat injury. It is possible to use conservative measures to let the shoulder recover and increase muscular



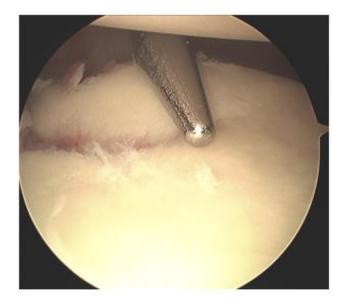
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stability through exercises; however, if the bony Bankart fracture is significant in size, the shoulder will remain unstable without surgical repair. Dr. Chudik may recommend an arthroscopic procedure to address the bony Bankart lesion and any other injuries that may have occurred with the dislocation. Post-operatively, the patient will be immobilized in a sling for six weeks to allow healing of the repaired tissue. Most patients experience full recovery and return to activities within four to six months after surgery.



Arthroscopic view of bony Bankart fracture being reduced

Potential Complications

- Reinjury and repeated dislocations, particularly if not repaired
- Injury to nerves and blood vessels can occur with dislocation
- Bone fracture or cartilage injury with dislocation or reduction process
- Instability or post-traumatic arthritis
- Surgical risks/complications:
 - Infection (rare)
 - Continued pain or re-injury
 - Stiffness/loss of motion
 - Arthritis (post-traumatic)
 - Inability to return to previous level of competition or activity



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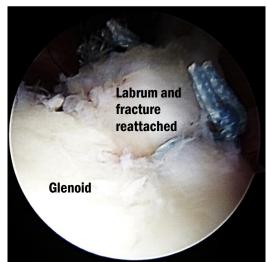




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Treatment Considerations

After the joint is reduced (put back into place) by trained medical personnel, treatment consists of ice, medications, and early mobilization if the fracture is small. MRI or CT scans may be necessary to determine the size of the fracture and the need for surgery. Displaced large bony Bankart fractures require surgery to reposition and stabilize the fragments. Most fractures require open surgery to be treated effectively, however, Dr. Chudik developed special instruments and techniques to repair these bony fractures arthroscopically and improve patient outcomes.





Dr. Chudik's special bony Bankart repair guide

Operative image, left, of a bony Bankart fracture and labrum reattached to the glenoid.







Operative images of new glenoid bone block and labrum reattached to glenoid







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Possible Medications

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (DO NOT take
 within seven days before surgery), or other minor pain relievers, such as acetaminophen,
 are infrequently recommended. Take these as directed by your physician. Contact your
 physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur
- Pain relievers are usually not prescribed for this condition
- Steroid injections reduce inflammation can be helpful in certain cases but should be used with proper discretion

Modalities (Cold Therapy)

Cold is used to relieve pain and reduce inflammation. Cold should be applied for 15 to 20 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.

Notify my Office if Symptoms Worsen



