

Shoulder Dislocations, Labral Tears and Bankart Tears

Shoulder Anatomy, good and bad.

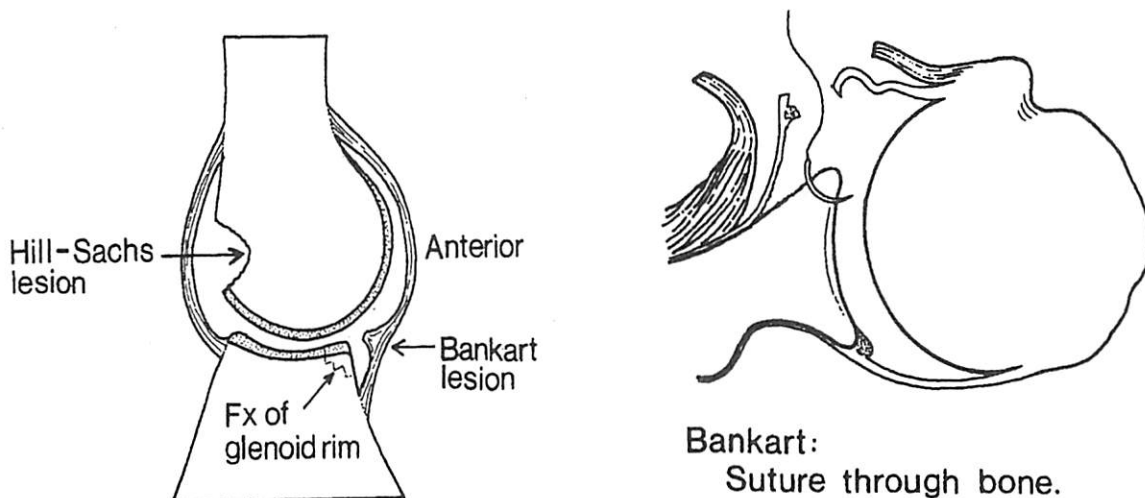
The shoulder has a very shallow bony socket compared to most ball and socket joints in our body like the hip joint. If the hip is like a bowling ball sitting in a salad bowl, the shoulder is more like a bowling ball on a dinner plate. The advantage of the shallow socket is that the arm has a much greater range of motion than the leg, the disadvantage is that the shoulder ball can slip out of socket much more easily because it is held in place by ligaments instead of a bony socket. The attachment of the shoulder ligaments to the socket is called the labrum, and this labrum can be torn when forces are applied to the shoulder.

What is the labrum?

The labrum is a ring of cartilage that sits on the edge of the glenoid (shoulder socket). It provides a little extra depth to the shallow glenoid, thereby increasing shoulder stability. The labrum also acts as the attachment point of the shoulder ligaments to the socket. So labral tears are associated with shoulder looseness or instability.

What is a Bankart lesion?

Labral tears can happen anywhere around the circumference of the shoulder socket. If the shoulder dislocates backwards, the labrum tears in the back of the shoulder. If the shoulder dislocates down and to the front, the labral tear and attached ligaments are termed a 'Bankart lesion'. Sometimes a piece, or pieces, of bone are chipped off by the dislocating humeral head, in which case it is termed a 'bony bankart'. This is the most common type of labral tear, and usually occurs after a traumatic event. Repeated dislocations can cause increasing bone loss of the socket, and the more bone that chips off the socket, the less stable the shoulder is and the more likely it is to dislocate again.



Who needs Surgery?

Some people have one dislocation or injury, but after a healing period and rehabilitation, never have a problem again. Clearly these patients do not require surgical repair of the torn ligament or labrum because in their shoulders the rotator cuff muscles and other remaining ligaments are strong enough to hold the shoulder in place and the labral tear is not painful.

Many other patients either have pain or repeated episodes of shoulder looseness or 'instability'. These are generally the patients that benefit from surgical repair of the torn labrum. Patients that have tears in the front of the shoulder are most at risk for repeat dislocations when the arm is up in the throwing position (like grabbing a rebound or throwing a ball), those with tears in the back have a problem when pushing straight in front (offensive tackle locked up with defensive lineman)

Are there risks to delaying surgery?

I see two types of patients that have poorer results after surgery because of delayed repairs. First, patients that have numerous dislocations (more than 2) can lose bone stock from socket (glenoid) because each dislocation can chip more socket off leaving an inadequate socket to hold ball in. It's like a chipped golf tee, tough to keep the golf ball on it because the tee doesn't have enough surface area to hold the ball. The second complication of multiple dislocations prior to repair is 'post- instability shoulder arthritis'. Multiple dislocations in a twenty year old can lead to shoulder arthritis when you are 40. It doesn't always, and we don't understand why it happens in some patients and not others.

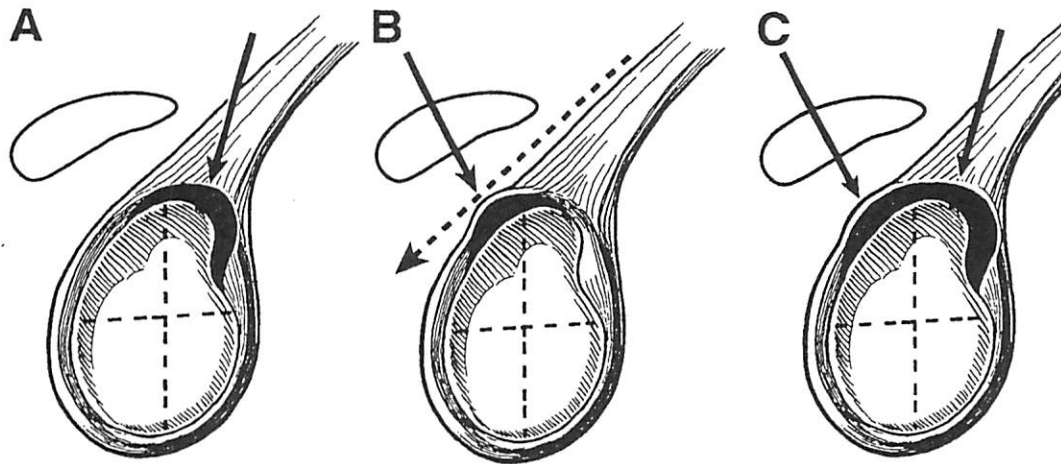
The surgery

The labrum/ligament repair is done arthroscopically and takes about 45 minutes. It is an outpatient surgery. I ask the patient to wear a sling for between 3 and 6 weeks, and physical therapy starts about 3 weeks after surgery and lasts about 2 months. Most repairs heal in 3 months, and return to sports is at 3 months. Success rate is about 92%. The complications are two; too loose and too tight. For most repairs, patients can drive and return to office work about a week after surgery, but no heavy lifting or repetitive work for three months.

S.L.A.P. Tears

What is it?

S.L.A.P. stands for Superior Labrum Anterior Posterior, and refers to a tear of the superior part of the labrum. The labrum is a cartilaginous ring that sits on the edge of the socket (or glenoid) and functions to give the socket more depth thereby giving the shoulder more stability. The biceps tendon attaches to the superior labrum.



How do SLAP Tears occur?

SLAP Tears occur from repetitive trauma such as may occur in a throwing athlete, or from sudden violent trauma such as might happen in a car accident. In older patients with rotator cuff weakness, repetitively lifting the arm up can cause the ball (humeral head) of the shoulder joint to ride up against the superior labrum, and that can also create SLAP lesions.

How do we diagnose SLAP Tears?

The most reliable way to diagnose SLAP tears is with a good history and physical exam. The best test is called an MRI Arthrogram. I will sometimes order this test to confirm the diagnosis. This test is done by a radiologist, and involves injecting a contrast dye into the shoulder and then doing an MRI. However, there are a lot of false positives (test shows a tear but there really is no tear) with an MRI arthrogram, so the results need to be interpreted carefully.

Treatment Options

A patient may either chose to live with the tear, or may chose to have it surgically repaired. Physical therapy will not cause the tear to heal, but may reduce the pain associated with a SLAP Tear. If therapy fails, surgery is recommended.

What is involved with surgery?

I repair SLAP Tears through the arthroscope. The surgery is done through two or three small ½ inch incisions, and takes about one hour. General anesthesia is used, and is supplemented with a nerve block in the shoulder to aid with post-op pain control. The surgery is outpatient, so you go home the same day. If associated rotator cuff tears are found, these are also repaired. Success rate for SLAP repairs is 85-90%.

Recovery

I will have you wear a sling for three weeks. Physical therapy starts the next day, and concentrates on gently moving the arm so you wont develop post-operative stiffness. Healing time for a SLAP repair is 3 months. Throwers wont throw well for a year.

Complications

The most common complication is stiffness, so we move the arm early to prevent that. Many throwers develop tightness in the back of the shoulder as a precursor to the SLAP Tear (posterior capsular contracture), so an important part of the pre-op and post-op treatment includes stretching the ligaments of the shoulder out to help restore the normal throwing mechanics.

The Day of Surgery.

Your age and medical health dictate whether or not you will require pre-operative blood tests and/or ECG or Chest X-rays. You will be notified several days prior to your surgery if that is required. You will be called the evening before surgery to tell you what time to come to the hospital. Please just block out the entire day for the process and don't get exited about time changes.

The day of surgery you will be admitted to the pre-operative holding area, and a nurse will place an I.V. in your arm. I personally will put my initials on your shoulder to identify the correct one. The anesthesiologist will give you some medicine to make you relax, and then give you the nerve block in your shoulder. I will discuss the findings of the surgery with your family, and will check on you after your surgery. You will likely not remember much of that part due to the medications you receive during your surgery. Then you go home and relax. You do need someone to drive you home. Please be sure to ask your family members to stay at the hospital while you are having your surgery.