What structures are torn when the shoulder dislocates?

The shoulder has the greatest range of motion of all the joints. The humeral head is a ball which sits in a shallow, relatively small, cup shaped socket called the glenoid fossa. The glenoid is made deeper by a rim of fibrocartilage called the glenoid labrum.

Three main ligaments are incorporated into a loose capsule that attaches to both the humeral head and the glenoid, and each ligament tightens at different arm positions to hold the shoulder joint together. In addition, the rotator cuff muscles and tendons wrap around the humeral head to pull it more firmly into the glenoid fossa to improve the stability of the shoulder joint. Instability occurs when the labrum is torn, the ligaments are torn or stretched, or when there are problems with the rotator cuff or the bones of the shoulder.
What happens when the shoulder dislocates?

Most commonly, the humeral head is forcefully levered out of the front (anterior) of the glenoid fossa and ends up forward and below the glenoid in the dislocated position. Shoulder dislocations occur most often when the arm is wrenched backward, pulling the humerus out of the glenoid socket.

Occasionally, the humeral head can be dislocated to the rear (posterior) of the glenoid fossa. This can happen from a fall on an outstretched arm or from a direct blow to the front of the shoulder.

How is the shoulder joint “relocated”?  

Sometimes, you can use your own muscles to “pull” the humeral head back into the socket. However, after the shoulder joint has been dislocated, the muscles of the shoulder will spasm and not allow any movement of the dislocated humerus.

The dislocated humerus needs to be returned (relocated) to the glenoid fossa or socket as soon as safely possible. In most instances, you will need to be taken to an emergency facility. A physician will give medication to relax the shoulder muscles and then manually relocate the shoulder. Treatment after dislocation consists of the use of a sling or shoulder immobilizer to rest the injured limb.

Will my shoulder dislocate again?

Unfortunately, once you have dislocated your shoulder, the chances of it happening again are greater, especially if you are active in sports. Ligaments and tendons may stretch during a dislocation, making the shoulder unstable.

- 90-95% Recurrence if less than 20 (Rowe, McLaughlin, Hovelius, Arceiro)
- 60-85% Recurrence if less than 30 (Hovelius)
- 95% if Bankart lesion present
- Depends on age, athletic activity, fractures and bony lesions, underlying pathology

(Boileau, 2006)
When is surgery necessary?

Surgery is indicated when the shoulder instability becomes a disability for the patient. The need for surgery depends upon the functional demands of the patient and the degree of instability present. Typically, surgery is not done unless a conservative program of exercise has failed. Patients who have repeated shoulder dislocations are the usual candidates for surgical repair.

What does the surgery involve?

Surgery attempts to restore an anatomical balance to the joint and address the problems that are causing the instability. The surgical repair focuses upon the tightening of the stretched capsular ligaments and/or the repair of the glenoid labrum, which were torn at the time of injury. In some situations, arthroscopic techniques may be used, but in many situations, open repair is the favored technique.

The goal of surgery is to restore stability while maintaining mobility and restoring pain-free functional use of the shoulder in daily activities as well as sports and recreational activities. Typical success rates for open surgery for shoulder instability vary from 90 to 95%.