

# Evaluation and Treatment of the Unstable Shoulder



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Shoulder instability is one of the leading causes of shoulder pain and limited function in adolescent and young adult athletes. The shoulder has the responsibility of positioning the hand in space and, to accomplish this goal, it is imperative that the shoulder joint allows a considerable degree of motion. This comes at the cost of having limited inherent bony stability. The shoulder is traditionally thought of as a ball-and-socket joint. In actuality, the bony anatomy of the shoulder joint is more analogous to a golf ball on a golf tee. That is, the head of the arm bone (humeral head) is much larger than the surface on which it rests, or the glenoid. There are numerous contributors to stability of the shoulder joint, and these include the tissue lining the bone as well as multiple muscles and ligaments.

A shoulder can be unstable in one direction or in multiple directions. Instability in one direction most often occurs after a shoulder dislocation, where the two bony surfaces lose contact with each other. The arm usually needs to be put back in place by an athletic trainer or other medical professional. This injury disrupts the tissue within the shoulder and can lead to recurrent dislocations. Athletes with this injury typically are aware of a shoulder position that makes them feel like the shoulder is going to “pop out” and will avoid this position.

Instability in multiple directions usually presents with a vaguer onset of symptoms, and a specific injury is less common. People with this condition can have a history of having excess joint laxity (a.k.a. being loose-jointed). They are often athletic and may participate in sports that

involve strenuous shoulder activity, such as swimming, gymnastics, weightlifting, or overhead sports. Symptoms include a feeling of instability, but pain with or without mechanical symptoms (grinding, popping, or clicking) with activity is more common. Other symptoms include pain with overhead activity or pain with pressing activities like bench-press and push-ups. This condition affects both shoulders in approximately 20% of cases, but symptoms in both shoulders may not occur simultaneously.

Athletes who have clinical signs and symptoms suggestive of instability in multiple directions, without a history of a traumatic injury, are treated initially with physical therapy and rehabilitation. It is important to understand that deconditioning of a shoulder with laxity can lead to pain and instability, and focused rehabilitation can help return a “loose” shoulder to a healthy, functional state. Rehabilitation restores stability to the shoulder joint through improved function of the surrounding muscles. Anti-inflammatory medications can diminish symptoms. As strength and control improve, functional and sport-specific training are incorporated in preparation for return to sport or work activity. Many patients with this condition (65% to 90% in current studies) will improve following an appropriate trial of rehabilitation, but improvement may take up to three months.

## SURGICAL TREATMENT IS CONSIDERED FOR:

- (1) a person who fails to improve with appropriate rehabilitation and
- (2) a person with a shoulder dislocation who wants to decrease the chance of recurrent dislocation.

For the latter group, age at the time of a first shoulder dislocation has been shown to be the strongest predictor of recurrent dislocation. For example, several studies have indicated that a person younger than 20 years of age at the time of his or her first shoulder dislocation has a greater than 90% chance of having another dislocation of the same shoulder!

Most commonly, the surgical procedure can be done with arthroscopy: Three to four small incisions are made around the shoulder and a video camera and specialized instruments are used to fix the tissue within the shoulder joint. After surgery a sling is used for four to six weeks, but exercises to maintain motion are started within a couple weeks. Patients can return to non-contact sports at 6 months. Collision and contact athletics is permitted after six to nine months provided the shoulder has full range of motion and full strength.