

AthletiHINTS



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Shoulder Dislocation

Introduction

The shoulder is the most frequently dislocated major joint in the body. In some sports, shoulder joint dislocations are more common than all other joint dislocations combined. Anterior, or forward, dislocations account for between 80 percent and 95 percent of all shoulder girdle dislocations. Shoulder instability can range from a vague sense of shoulder dysfunction, resulting in non-traumatic instability, to traumatic dislocation.

Mechanism of Injury

If the arm is externally rotated and abducted (moved away and upward from the body) this force pushes the arm beyond the limits of the capsule and the ligaments surrounding the shoulder joint. The greater tuberosity of the humerus is levered against the acromial process and the coracoacromial ligament. This tears the inferior shoulder ligaments, the anterior capsule and perhaps the labrum. The humeral head slips out, commonly in a downward and forward direction. When the arm is dropped to the side, the head usually comes to rest under the coracoid process.

Symptoms

The athlete usually knows that the shoulder has dislocated and is very alarmed and apprehensive. There is intense pain with initial dislocation (though recurrent dislocations may be much less painful). There may be tingling and numbness down into the hand.

Diagnosis

Immediate recognition of an anterior dislocation is often possible due to the characteristic position of the athlete's arm.

- There is a sharp contour of the affected limb in comparison to the opposite side.
- There is a prominent acromion process.
- The humeral head is below the coracoid process.
- The athlete is resistive to any attempt to lift the arm out to the side or internally rotate the arm (i.e. the arm can not be brought across the chest).

At the scene of the injury, it is important to examine the sensation of the arm, the strength (this may be difficult due to pain), the radial pulse, and peripheral circulation.

Complications

1. Damage to the nerves around the shoulder joint.
2. Rotator cuff tears in conjunction with an anteroinferior dislocation, even in young athletes.
3. Fractures of the humeral head and glenoid — relatively frequent in the older athlete. The greater tuberosity is the area most commonly fractured, due to its shearing against the acromion process and the coracoacromial ligament.

Over

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Management

The ideal time to reduce a shoulder dislocation is immediately after it occurs. If there is a delay before the shoulder is reduced, pain and involuntary muscle spasm can make reduction difficult.

Reduction should be done by a physician, and an evaluation of the neurological and vascular structures should be performed and recorded before reduction. If possible, X-rays should be taken before reduction is attempted; post-reduction X-rays should always be taken.

In the acute phase of an injury, if a physician is not present to reduce the injury, the athlete's shoulder should be splinted and supported with bandages. Ice should also be applied at this time to reduce swelling, inflammation and muscle spasm. The athlete should then be transported to the emergency room.

For anterior dislocation, after closed reduction, the shoulder is immobilized with a sling. In the first two weeks after reduction, a program of strong isometric shoulder work is instituted to minimize muscle wasting. From two to six weeks after injury, the sling is removed for exercises several times a day. The emphasis is still on isometric activities, with shoulder medial and lateral rotator isometric exercises being added. Concentric exercise through a limited range is permitted, as long as the movement is controlled.

Treatment progression is aimed at further restoration of range of motion, continued

strengthening of the appropriate muscle groups, increasing speed of movement activity to functional levels, improving control of shoulder mechanics, increasing endurance, and continuing to restore proprioceptive control. As shoulder function improves, the athlete may work up to heavier weights or begin using various exercise devices, such as Nautilus or isokinetic machines, elastic tubing, pulleys, a broomstick or T bar routine. Plyometrics and use of medicine balls are helpful in later stages of rehabilitation to teach functional stabilization and control.

If the problem is one of recurrent shoulder instability, the rehabilitation process follows a similar path, ensuring especially that exercises demonstrate activation of the appropriate muscle or muscle groups and that the proper functional control is achieved. Surgical repair may be necessary in cases of recurrent dislocation.

Conclusion

Shoulder dislocation is a common problem among athletes. In this review we have focused on the most common form of dislocation, anterior dislocation. Return to sports and activities is definitely the goal of rehabilitation. Complications can best be avoided by following the correct procedures at the onset of the injury. The rehabilitation process is tailored to each individual athlete and sport. If managed correctly, most can return to prior function.