

Shoulder Dislocations – Return to play after a serious injury

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Most are familiar with the thrilling story of Duane Wade, the professional basketball player for the Miami Heat who sustained a shoulder dislocation and continued to play until it could be repaired in the off-season. Shoulder dislocations are serious injuries that can occur with most contact sports like football, wrestling and hockey. In many cases shoulder dislocations can be treated non-operatively and surgical repair can be delayed until after the season.

Most shoulder dislocations occur when the athlete's arm is forced upward and outward behind the athlete's body, dislocating the humeral head (ball of the upper arm bone) out the front of the glenoid (shoulder socket) (Figure 1a). When a shoulder dislocates, the ligaments that connect the humeral head (ball) and glenoid (socket) and keep the shoulder stable are typically torn off the front of the glenoid with its labrum (tissue thickening surrounding the glenoid) (Figure 1b). This tear of the labrum with the ligaments from the glenoid is referred to as a "Bankart Lesion" (Figure 2). Fractures to the bone of the humeral head ("Hill Sachs Lesion") and glenoid, tears of the rotator cuff, and stretch injuries to nerves to the arm can also occur during a dislocation.

When a shoulder dislocation occurs on the field, team athletic trainers are usually the first ones on the scene. The athletic trainers, often with the assistance of the team physician, act quickly to take a brief history of the injury, examine the athlete, insure no other injuries have occurred, and reduce ("pop") the shoulder back in place. The reduction is usually performed by placing a significant traction force on the arm to unlock the dislocation while pushing the humeral head, which is typically down in the front of the armpit, back into place. Often, another person is needed to provide counter-traction by holding the torso down with their body or a sheet. This quick response from the medical team is important to restore blood flow to the dislocated humeral head and to reduce the shoulder atraumatically (without further injury) before the shoulder muscles start to spasm and tense up.

Following the reduction, early evaluation by a sports medicine physician is important to determine the extent of the injury. Physical examination, x-rays, and an MRI are performed to rule-out neurovascular (nerves and blood

vessels) injuries, fractures, and ligament or rotator cuff tears. Some fractures and tears to the rotator cuff require early surgery. Fortunately, in younger athletes (<40 years of age), most dislocations only result in tears to the ligaments and surgery can be delayed.

Typically, the sports medicine physician will refer the athlete to a physical therapist to restore the motion, strength, proprioception (position sense) and function of the shoulder. Following several weeks in an appropriate rehabilitation program, some in-season athletes may return to play; however, most contact sports require bracing to help prevent further dislocations. Braces restrict motion and may hinder performance and preclude return to certain positions and sports (throwing arm in Quarterbacks and wrestling).

Without surgery to repair (re-attach) the ligaments in the shoulder, athletes less than 25 years of age have an 80 to 100% chance of repeat dislocation. More recent studies also suggest that early surgery to repair the ligaments may result in a better outcome as related to recurrent dislocations, development of later arthritis, and patient satisfaction. Surgery to repair the labrum and ligaments can be performed with specialized arthroscopic instruments through two small, less than 1/2 to 1 cm incisions (Figure 3). Surgery is followed by six weeks of immobilization in sling and a specific rehabilitation program with a physical therapist. Return to activities and contact sports is typically allowed after 4 months. Success rate and patient satisfaction are high with less than a 5% chance of repeat dislocation.

Shoulder dislocations are serious injuries to the shoulder which can result in injury to the cartilage, bone, ligaments, and rotator cuff of the shoulder. Fortunately, if treated properly with an expert medical team of athletic trainers, physical therapists, and primary care and orthopaedic sports medicine physicians, athletes with shoulder dislocations can return to play.

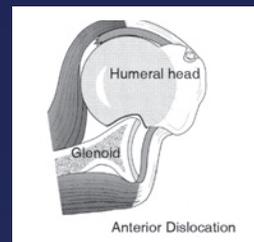


Figure 1A

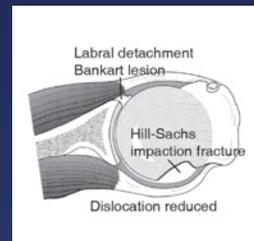


Figure 1B

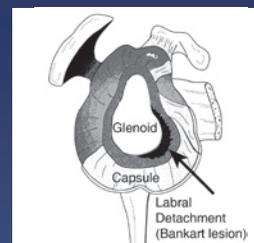


Figure 2

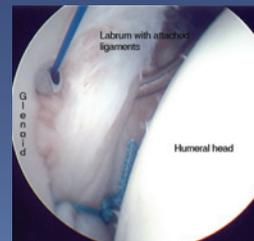


Figure 3A



Figure 3B

The practice of athletic trainers is governed by stringent qualifications set by their national organization, the National Athletic Trainers' Association, and each certified athletic trainer must graduate with a bachelors degree from an accredited program, maintain current certification and a state license. Athletic trainers often practice under the supervision of a team physician, providing prevention, diagnosis, treatment, and rehabilitation of acute and chronic sports-related injuries. You will often see one or more athletic trainers on the sidelines at practices and games where their duties

will range from lifesaving such as managing heat illness, concussions, and neck injuries to more the routine such as providing taping, care for sprains and strains and post-surgical rehabilitation.

Many athletes and their parents are often unaware of the presence and availability of athletic trainers and athletic training facilities in their own athletic programs. Fortunately, most collegiate and high school athletic programs offer a seasonal orientation program that provides a great opportunity for student-athletes and their parents to ask ques-

tions about the availability of the athletic trainers and the hours of operation for the athletic training room. Athletic trainers are board-certified and licensed medical professionals who have the athletes and their athletic programs best interest in mind. They do not provide steroids or other banned substances and can be an invaluable resource with regards to sports medicine information (nutrition, hydration, care for injuries, physician referrals) and hands-on diagnostic and therapeutic care.