



Tips From the Training Room

For more information contact the athletic training staff at Towson Sports Medicine, 410-828-4TSM (4876).

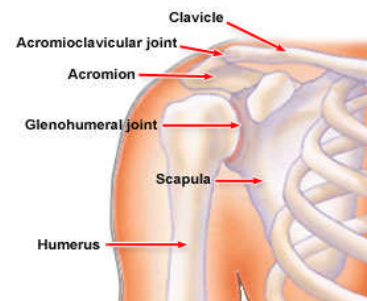
Football Injuries and Prevention

Football is one of the most popular sports in the United States, with one of the highest rates of school sports injuries. In 2007, the U.S. Consumer Product Safety Commission stated that more than 920,000 people under the age of 18 were treated for football-related injuries in clinics, doctors' offices, and hospital emergency rooms.

Shoulder Dislocation vs. Separation

Shoulder Anatomy:

- Glenohumeral Joint- ball of the upper arm bone (humerus) and the socket (glenoid)
- Acromioclavicular Joint- collarbone (clavicle) meets the highest point of shoulder blade (acromion)
- Sternoclavicular Joint- the connection of the breast bone (sternum) to the collarbone (clavicle)



AAOS:<http://orthoinfo.aaos.org/topic.cfm?topic=A00394>

Shoulder Dislocation:

- The humeral head (ball) comes completely out of socket either forward or backward
- Anterior (forward) shoulder dislocations occur 95% of the time. The elbow is away from the body and the shoulder is outwardly rotated. This commonly occurs when a person falls on an outstretched arm or hit from behind.
- Signs and symptoms may include deformity, sudden pain, swelling, inability to move arm and shoulder, and numbness or tingling in shoulder, arm, and hand.

Shoulder Separation:

- Separation of where the clavicle (collarbone) meets the highest point of the acromion (shoulder blade).
- The injury commonly occurs when a person falls onto the shoulder
- Signs and symptoms include pain over the top of the shoulder, a prominent bump on top of the shoulder, and a feeling of shifting or something sticking up on the shoulder.

Stinger vs. Cervical Spine Injury

Burners and Stingers:

- Injury to nerve supply of the upper arm, either at the neck or shoulder
- Head is forcefully pushed to the opposite side and shoulder is pushed down
Radiating pain or burning sensation down one arm, possible numbness or weakness, a warm sensation feeling
- Key point: Athletes with burners have full and pain free neck range of motion
- Athlete is not allowed to return to sport until all symptoms are completely gone

Acute Cervical Disk Herniations:

- C-Spine Injuries can occur from a compression force down the spine when the head is slightly bent forward- this is the classic spearing hit
- Acute paralysis of the upper, lower, or all four extremities
- Loss of pain and temperature sensation also occurs at the location of the lesion
- Very painful and limited motion of the neck
- Typically athlete is spine boarded and taken to the local hospital

ACL vs. MCL Injury

Knee Anatomy:

The knee joint is formed by the femur, tibia, and the patella. There are four main ligaments within the knee that connect the femur to the tibia.

- Anterior Cruciate Ligament (ACL)
- Posterior Cruciate Ligament (PCL)
- Medial Collateral Ligament (MCL)
- Lateral Collateral Ligament (LCL)

Anterior Cruciate Ligament (ACL):

- ACL runs diagonally through the middle of the knee making a cross with the PCL
- ACL prevents the tibia from moving forward, as well as providing rotational stability to the knee
- 70% of tears occur from rapid change of direction, deceleration and pivoting, awkward landing from a jump
- 30% occur from a direct blow

- Signs and Symptoms including hearing a “pop” sound, pain, large amount of swelling, unstable feeling, and a loss of motion while bending the knee or straightening the knee out

Medical Collateral Ligament (MCL):

- MCL is located on the inside of the knee
- MCL restricts the tibia from hinging outward in relation to the femur
- Typically occurs from a direct blow to the outside of the knee
- Signs and Symptoms include pain on the inside of the knee, swelling over the ligament, and an unstable feeling in the knee

Lateral Ankle Sprain vs. High Ankle Sprain

Ankle Anatomy:

Three bones make up the ankle joint

- Tibia- shin bone
- Fibula- small bone located on outside of ankle
- Talus- a foot bone

Inversion (Lateral) Ankle Sprain:

- Typically the anterior talofibular ligament is injured
- Ankle is rolled so the foot turns inward- this can occur from contact, cutting or changing directions, or landing awkwardly
- Signs and Symptoms include pain, swelling, bruising, and loss of motion.

Syndesmosis (High) Ankle Sprain:

- Area between the tibia and fibula that is held together by ligaments
- Injury can occur by turning the foot out (external rotation) - this can occur from a direct blow to the outside of the leg or from a direct hit to the outside of the knee while foot is turned out and the athlete’s body rotates in the opposite direction.
- Signs and Symptoms include pain, swelling, possible bruising, and pain when putting weight on the foot
- Takes longer to heal than a lateral ankle sprain.

Heat Illness and Concussions are also very prevalent in football. Please refer to each of these tips from the training room to learn more.

Prevention of Football Injuries:

- Have a Pre-Season Physical before practicing
- Perform a proper warm up and cool down at every practice
- Strength training and Stretching programs
- Adequate hydration before, during, and after every practice and game
- Stay active in off-season
- Wear proper fitted and conditioned equipment, such as helmet, shoulder pads, mouth guards, and shoes/cleats

- Learn proper tackling methods
- Contact a sports medicine provider or athletic trainer with any injury concerns or prevention strategies
- All concussions should be seen by an appropriate medical professional before returning to play

Websites:

CDC Heads Up: Concussion in High School Sports:

www.cdc.gov/concussion/headsup/high_school.html

American Youth Football and Cheer:

www.americanyouthfootball.com

Pop Warner:

www.popwarner.com

Stop Sports Injuries:

www.stopsportsinjuries.org/football-injury-prevention.aspx

American Academy of Football Injury Prevention:

<http://orthoinfo.assos.org/topic.cfm?topic=A00113>