



Sports Injuries

By: Dr. Howard W. Harris txortho.net

Questions often arise in Sports Medicine regarding shoulder and knee injuries in athletes and the best treatment options for these injuries that will allow them to get back into their sport quickly. To understand the most common injuries among athletes, it is important to know the anatomy of the knee and shoulder and how injuries affect these joints.

The knee is the largest and one of the most injured joints in the human body. Typically in athletes the most common knee injuries are: ACL (anterior cruciate ligament) tears, MCL (medial collateral ligament) sprains and meniscal (cartilage) tears. ACL injuries typically occur when an athlete changes direction rapidly when running, has contact from another athlete while the foot is planted on the ground, or when landing off-balance from a jump. MCL injuries are typically caused by a direct blow to the outside of the knee, while a torn meniscus can occur with twisting, cutting, pivoting, decelerating or being tackled. These injuries can be isolated or a combination of injuries can occur at the same time. This can make the medical evaluation of a knee injury more complicated and require an X-ray or MRI in addition to an exam by an orthopedic surgeon.

Many knee injuries can be treated conservatively, but some may require surgical intervention. Most knee surgeries can be performed with minimally invasive techniques including: knee arthroscopy; ligament reconstruction or repair and meniscus and cartilage injury repair. These minimally invasive procedures consist of the physician using an arthroscope to look inside the joint to identify the torn structures and repair them without having to make large incisions. These techniques reduce surgical time, scar tissue and potential complication risks for the patient.

The shoulder is the most flexible joint in your body; however, this flexibility makes the shoulder susceptible to injury and instability. Shoulder injuries vary depending on athletic activity, and are frequently caused by repetitive, overhead motion such as lifting or throwing. Shoulder injuries frequently involve the muscles, ligaments and tendons, and less commonly the bone. Typically, athletes involved in overhead activities such as swimming, swinging and throwing can experience shoulder injuries. Shoulder problems often seen in athletes are: instability, inflammation or tendonitis and cartilage or ligament tears. Instability can result in dislocation or partial dislocation of the shoulder and is accompanied by pain and can feel like your shoulder has slipped out of place. Inflammation and tendonitis are commonly a result of the shoulder rubbing against the scapula or part of the shoulder blade, and usually occurs during excessive overhead arm motion. Cartilage and ligament tears occur from repetitive use or dislocations and are accompanied by popping, clicking and pain. Rotator cuff injuries can also occur in athletes, as the rotator cuff is one of the most important components for movement of the shoulder. The rotator cuff is the deep layer of muscles around the shoulder joint and provides the shoulder with critical stability and control for almost every activity that requires motion of the shoulder joint, from shooting hoops to swinging a bat.

Many shoulder injuries can be treated conservatively with activity modifications, physical therapy or medication. When shoulder surgery is required, it almost always can be performed through arthroscopy—a minimally invasive surgical procedure similar to that used in the knee. The physician uses the arthroscope and specialized instruments to identify and repair structural injuries to the shoulder and surrounding tissue.

With most knee and shoulder injuries that require surgery, physical therapy may be prescribed prior to surgery to increase strength, range of motion and improve the patient's chance of a better outcome. Physical therapy is also commonly prescribed after surgery to strengthen the muscles around the joint, increase range of motion and teach the patient any activity restrictions. Patients are also given a home program of strengthening and specific activities to avoid reinjury to provide the best chance for a successful recovery and a return to full activities.

Some shoulder and knee injuries are potentially preventable by following some simple guidelines with athletic activity. Proper equipment, warm-ups and stretching prior to and after physical activity and recognition of early signs of pain, swelling and discomfort will all help with prevention of sports injuries. Timely medical attention by a physician allows for diagnosis and treatment of these and other shoulder, knee and sports related injuries.