COMMON KNEE INJURIES IN SOCCER

Due to the many cutting and pivoting demands to the body, it should be no surprise that the knee is one of the most often injured joints in soccer players. One study following Major League Soccer players over a season found that over 20% of injuries were to the knee, higher than any other joint. Results from this study also showed that knee injuries caused more missed time from the sport and the need for surgical intervention (Morgan, B & Oberlander, M., ‘An Examination of Injuries in Major League Soccer,’ The American Journal of Sports Medicine, Vol. 29(4), pp.426-430, 2001).

Muscle strains and ligament sprains make up the majority of knee injuries in soccer players, with ligamentous injuries often resulting in the need for surgery. In order to fully understand common knee injuries, it helps to know some of the basic anatomy of the knee joint.

The knee is a hinge joint consisting of the femur and tibia bone with the patella (kneecap). Four ligaments, the ACL, PCL, MCL, and LCL provide the stability to the joint while still allowing the flexion/extension motion. In between the femur and tibia is cartilage and the meniscus, which is a disc shaped cartilage that provides cushion to the joint.

The muscles most affecting knee motions are the quadriceps over the front of the thigh and the hamstrings posteriorly. These muscles are responsible for doing the flexing and extending of the knee, along with providing stability and power for the leg with running and kicking motions.

Due to the space constraints of this article, we will limit the discussion to these structures as research shows us they are the most common sports and soccer related injuries.

Ligament sprains: A sprain of one or more of the above ligaments is likely to occur during soccer due to the quick change of direction required by the sport but could also be the result of a collision or hard tackle by another player. Sprains are graded based on the severity of the stretch to the ligament with the most severe being complete tears. A complete rupture of the ACL is most often talked about because it is the most common, but a full discussion of ACL tears, especially in female soccer players, requires a full article of its own. Treatment of a ligament sprain is dependent on which structure is affected and the degree to which damage has been done. Some will heal with rest and ice, while others may need physical therapy treatment, bracing or even surgical repair.

Muscle strains: Like a ligament sprain, an injury to the muscles surrounding the knee joint are graded based on the amount of damage to muscle tissue. The more severe strains will consist of more muscle tearing, bruising, and swelling. It is possible to tear the muscle off the bone at which time surgery is needed to reattach the tendon as this will not heal on its own. Milder versions of strains can be treated initially with rest, ice, compression, and elevation. Gradual addition of stretching and strengthening is then needed to regain the flexibility and strength to avoid further injury.

Meniscus tears: Damage to either the medial or lateral meniscus can occur during the twisting or cutting motions during soccer. Since these structures provide the cushioning in the middle of the joint, they are more susceptible to injury with twisting motions when the foot is planted. Like ligament strains, treatment is dependent on location and type of tear. Often surgery is needed to remove the torn portion to allow smooth motion in the knee. Some tears are able to heal on their own, and along with strengthening of the muscles surrounding the joint, it is possible to return to sports without surgery.

There are many other injuries that can occur at the knee joint, but the above gives some basic information and guidelines regarding recognition and management of some common injuries. If you injure your knee and would like a free injury evaluation or any other rehabilitation needs regarding a knee injury, please contact me at 414-272-9595 as I would be happy to help you get back on the field as soon as possible.

Information from acsm.org

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