



The American Orthopaedic  
Society for Sports Medicine

## SPORTS TIP

# Meniscal Tears in Athletes

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### What is the meniscus?

The human meniscus is a wedge shaped structure in the knee that consists of fibrocartilage, a very tough but pliable material. The medial meniscus is located on the inside of the knee (towards the middle of the body) and the lateral meniscus is located on the outside of the knee. Together, they act primarily as shock absorbers and stabilizers in the knee joint. They also help nourish the articular cartilage through their rich blood supply. This blood enhances the ability of the cartilage to repair itself.

### How is the meniscus torn or injured?

In young athletes, most injuries to the meniscus are the result of trauma. The menisci are especially vulnerable to injuries in which there is both compression and twisting applied across the knee. It is also common for the meniscus to be damaged in association with injuries to the anterior cruciate ligament.

In older athletes, many meniscal tears are the result of trivial trauma, like twisting the knee, squatting, or through repetitive activities like running, which stresses the knee joint. These tears happen because the meniscus has a tendency to degenerate as part of the aging process. This degeneration often takes place in conjunction with early arthritic changes in the knee joint.

### How is a meniscal tear diagnosed?

When a meniscus is torn, it will often produce pain, swelling and mechanical symptoms like catching or locking in the knee joint. An injury to the meniscus can be diagnosed based upon the history that the patient provides and a physical examination of the knee. The orthopaedic surgeon may also require further diagnostic studies like an MRI (magnetic resonance imaging) which provides a three-dimensional image of the interior of the knee joint. In some cases, surgeons may also recommend arthroscopic inspection of the knee joint, a minimally invasive surgical procedure.

### How is a meniscal tear treated?

Certain patterns of injury, especially in younger patients, may call for repair of the meniscus. The decision to repair is based on many factors, including: location and pattern of the tear, age of the patient, and predictability of whether the injury will be able to heal.

Other patterns of tears, especially in older patients, are not suitable for repair. If the patient is symptomatic and conservative treatment options like physical therapy are not working, surgery to remove the torn section is recommended. This surgery is called arthroscopic partial meniscectomy and is usually performed on an outpatient basis, typically in one hour or less.

Most patients ask, "What is the benefit of removing the meniscus? Isn't it an important structure in my knee?" Clearly,

the meniscus does play an important role in the human knee, but once torn and unable to be repaired, many of the beneficial effects of that structure are lost. If a tear is causing pain and impaired function, removal of that tear is the treatment of choice.

