Abstract:
The meniscus is a disc of cartilage located between the femur and tibia that acts as a cushion to redistribute the forces in the knee joint. Meniscal tears may result from an acute, traumatic injury to a young, healthy knee. In older patients, meniscal tears are often due to degenerative changes in the meniscus and daily wear and tear. Symptoms of a torn meniscus include pain, especially going up stairs, swelling of the knee, locking or clicking. Meniscal tears are diagnosed by physical exam or MRI. If meniscal damage is identified on physical exam, MRI is not needed before treatment. Treatment of acute tears is surgical resection or repair. Treatment of degenerative tears is more conservative with physical therapy and supportive measures being the focus of treatment. If conservative treatment fails, then the indications for surgery are reevaluated.
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Meniscal Injury AKA  
“Torn Cartilage”

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Knee Anatomy:  
The knee is the joint formed by the femur (thigh bone), the tibia (shin bone) and patella  
(knee cap). The knee contains two types of cartilage. The articular cartilage is a smooth  
rubbery material that covers the ends of the tibia and femur and the underside of the  
patella. Articular cartilage allows the bones to glide past each other smoothly. The  
second type of cartilage in the knee is a disc of fibrocartilage called the meniscus. The  
meniscus is composed of two rubbery discs, a medial disc and a lateral disc, that are  
attached to the tibia. The meniscus acts as a cushion and spreads out the force between  
the tibia and femur so that no one spot in the joint becomes excessively worn.

Meniscal Injuries:  
The meniscus is a commonly injured structure in the knee. There are two types of  
meniscal tears, traumatic tears and degenerative tears. Traumatic tears commonly occur  
in young individuals due to trauma. The patient commonly reports a discreet injury to the  
knee that often involves a twisting mechanism. In contrast, a degenerative tear is more  
common in older individuals and often the patient does not report a specific injury. As  
we age, the meniscus becomes weaker and tears more easily. In these cases the meniscus  
may have torn during daily activities such as squatting down or minor trauma that the  
patient doesn’t recall. It is possible for older adults to have traumatic tears as result of an  
acute injury as well.

Symptoms:  
The primary symptom that patients with meniscal tears complain of is pain. Patients may  
have pain along the joint line or diffusely involving the whole knee. Pain is often worse  
going up stairs. Some patients have swelling of the knee. This can make the knee feel  
stiff and decrease the range of motion. Swelling may worsen with activity. Some  
patients have mechanical symptoms such as clicking or locking of the knee joint.

Diagnosis:  
The first step in the evaluation of a meniscal tear is a careful history and exam by a  
physician skilled in musculoskeletal problems. During the exam, the clinician will first  
inspect the knee for swelling and signs of trauma. Then, the clinician will palpate for  
tender areas, evaluate range of motion and check for ligament stability. Finally, the  
clinician will evaluate specifically for meniscal injury with one or several exam  
maneuvers.
**Imaging:**
The meniscus is not visible on plain x-rays therefore MRI is the test of choice to image the meniscus. Not all patients need imaging for diagnosis. If the history and exam strongly indicate meniscal damage, it is reasonable to proceed to treatment without imaging.

**Treatment:**
Surgical removal or repair of the meniscus is indicated for traumatic tears that cause persistent symptoms. The orthopedic surgeon will determine if removal or repair is a better option. For degenerative tears, surgery is not immediately indicated. Often symptoms will improve with time and physical therapy to strengthen the muscles surrounding and supporting the knee. If symptoms persist after a trial of physical therapy and other conservative measures, surgery would be considered.