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Meniscus Tear

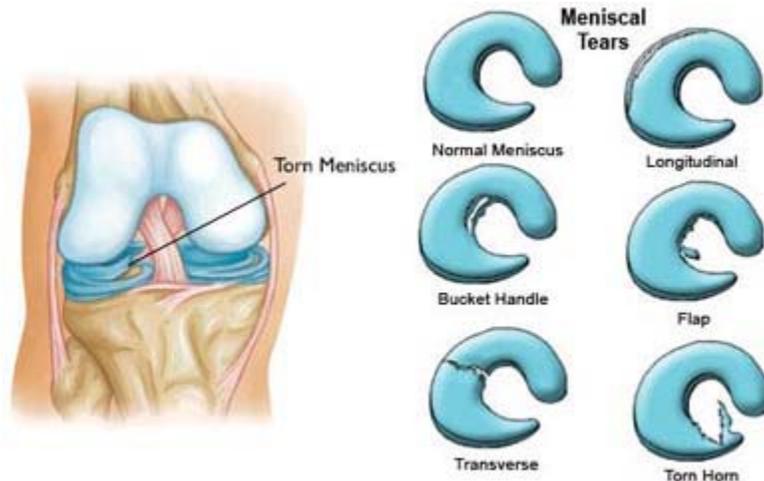
The meniscus is the rubbery, soft cartilage cushion in the knee. There are two of the C-shaped cushions in each knee, a medial (inner) and lateral (outer) meniscus. They sit between the two bones that form the knee joint, and function to cushion and support the knee. The meniscus can tear with injury or degeneration, or a combination of both. The medial meniscus is torn about 10X more frequently than the lateral meniscus. In young people, the meniscus usually tears with an injury. In older people, the cartilage can degenerate (weaken) with age, and can tear with or without an injury; spontaneous tears can occur. Meniscal tears can occur in association with other injuries to the knee.

Symptoms:

Pain is the usual symptom of complaint with a meniscus tear. There is often a noticeable “pop.” Swelling and stiffness can also occur. Mechanical symptoms are common—clicking, popping, and locking. Sometimes there is just a feeling that something is wrong inside the knee. Pain can be sharp, or can be dull and aching. Meniscus tears do not heal, but sometimes the symptoms dissipate. Chronic, intermittent symptoms is very common. Meniscal tears can cause a feeling of instability, or can cause the knee to buckle or give way.

Cause:

Injuries, particularly with sports, are a common cause of meniscal tears in young people. As people age, the meniscus tissue weakens through the normal degenerative process, and tears can occur spontaneously, or with simple activities, such as getting up from a chair, and changing direction while walking. A slip and twist of the knee is also a common cause.



Diagnosis:

A careful history and physical examination will often make the diagnosis. Plain x-rays are often obtained and can show associated conditions, such as arthritis. Ultrasound can sometimes visualize meniscal tears. MRI is sometimes needed to clarify the diagnosis.

Treatment:

Meniscus tears are typically surgical problems when they cause symptoms, particularly the mechanical symptoms of locking, catching, and popping. There are two main procedures: meniscus repair, where the torn meniscus is sutured together, and meniscectomy, where the torn cartilage piece is removed. Meniscus tissue has poor blood supply, particularly along the thin inner edge that is essentially devoid of blood supply. Tears in younger individuals, near the thicker periphery (outer edge) of the meniscus have healing potential, due to good blood supply, but often require surgical repair. Older individuals with degenerative type tears do not always require treatment, unless they have symptoms. Conservative treatment is recommended when the diagnosis is uncertain. This may include:

- Activity modification. Avoid the activities that worsen symptoms.
- For an acute injury, a brief period of RICE (rest, ice, compression, elevation).



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- Non-steroidal anti-inflammatory drugs (NSAIDs). May relieve pain and inflammation.
- Physical therapy. Can help to stretch and strengthen the affected joint.
- Steroid injection. Injection of a corticosteroid along with a local anesthetic may immediate relief. This procedure can be done in the office, often with ultrasound guidance.
- PRP injection. May help to stimulate healing of a meniscal tear, but there is no data to show its effectiveness. Other *biologicals*, such as AmnioFix, may also help to stimulate a healing response, but there is no firm data yet to show effectiveness.

Surgery

Surgery may be recommended for patients who have persistence or worsening of symptoms, or failure to improve with nonsurgical treatment. The arthroscopic procedure is done in an ambulatory surgery setting through two small, 1/4" incisions. The meniscus is examined, as are all the structures inside the knee, then the tissue is either repaired (young patients), or partially removed (older patients, and young patients with tears that cannot be repaired). Results are typically excellent. In unusual cases of young people with a severely torn meniscus that must be removed entirely, meniscus transplant surgery may be necessary at a later time.