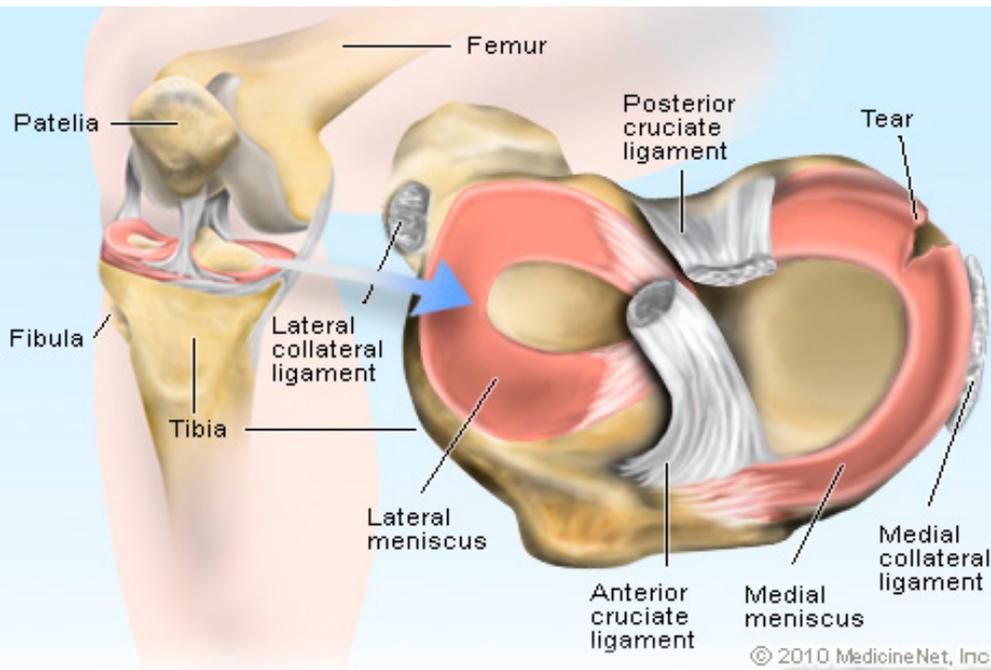


## Meniscus Injury



The meniscus, or meniscal cartilage is a wedge-like rubbery cushion that sits between the two major bones (femur and tibia) of the leg and prevents them from grinding against each other. It works as a strong stabilising tissue to help the knee joint carry weight, glide and turn in many directions. It is shaped like the letter “C”, curving at the inside and the outside of each knee and is one of the most commonly injured parts of the knee.

The meniscus can tear in a number of ways. People who play football or other contact sports may tear the meniscus by twisting the knee, pivoting, cutting or decelerating. In athletes, meniscal tears often happen in combination with other injuries such as a torn ACL (anterior cruciate ligament). Older people can injure the meniscus without any trauma. The meniscal cartilage weakens and wears thin over time and may result in a degenerative tear.

Many patients describe a “popping” sensation when the meniscus tears. Most people can still walk on the injured knee and many athletes keep playing. If the surrounding tissues become inflamed as a result of the tear, the knee can become painful and tight. There may be stiffness and swelling, tenderness around the joint, and swelling in the knee (“water on the knee”).

## IlioTibial Band

The iliotibial band is a superficial thickening of tissue on the outside of the thigh, extending from the outside of the pelvis, over the hip and knee, and inserting just below the knee. The band is crucial to stabilizing the knee during running. It moves from behind the femur (thigh bone) to the front while walking. The continual rubbing of the band over the bony prominence on the outside of the knee (lateral femoral epicondyle), combined with the repeated flexion and extension of the knee during running may cause the area to become inflamed. ITB friction syndrome is characterised by pain that is localised over the lateral femoral epicondyle (outside of the knee) that occurs during vigorous walking, hiking or running. The pain is usually relieved by rest and by walking with the knee held in full extension. However, when ambulation and knee flexion are resumed, symptoms return. Overuse may cause shortening of the ITB. The knee goes from flexion to extension and excessive pressure from the ITB causes friction over the lateral femoral epicondyle. This repeated motion produces inflammation of the underlying structures and causes pain. Pain localized over lateral femoral condyle (outside of the knee) that is made worse with activity. Initially it is relieved by rest.

## Treatment

The knee is actually composed two joints. A number of structures surround the area, and can all affect the knee. A holistic approach is therefore beneficial to managing knee injuries.

Treatment for knee problems first requires the correct diagnoses. Upon assessment, further investigations may be required such as an xray or scan such as an ultrasound or MRI, to assist with confirmation.

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## Conservative Treatment

Immediate treatment of a meniscal tear follows the basic RICE formula: rest, ice, compression and elevation. Nonsteroidal anti-inflammatory medications are effective for pain relief. If the knee is stable and does not lock, this may be all that is needed. Blood vessels feed the outer edges of the meniscus, allowing small tears to heal themselves with rest. Often with strengthening exercises the knee will settle down and gradual normal activity can slowly resume, with twisting and impact activities taking the longest. Low impact activities such as cycling and swimming are also great for the knee, especially where there is arthritic issues. If there is repeated locking or giving way, then surgery may be required. ITB patients generally respond to conservative management. Rest, ice, stretching, physiotherapy, and avoiding aggravating activities will all aid in recovery. Surgery is only used as a last resort when non-operative measures have failed. This is uncommon.

## Operative Treatment

If the meniscal tear does not heal spontaneously and the knee becomes painful, stiff or locked, surgical repair may be required. Arthroscopy (key hole surgery) can be effective in trimming the damaged pieces of cartilage from the meniscus and providing relief from symptoms. In young patients (generally less than 20yrs of age) the meniscus

may be repaired. The surgery offered depends on factors such as the type of tear, the presence or absence of an associated injured ACL, and the age of the patient. Arthroscopy is keyhole surgery of the knee joint. It allows the diagnoses and treatment of knee disorders by providing a clear view of the inside of the knee with small incisions, utilizing a pencil-sized fibre-optic camera called an arthroscope. The arthroscope contains optic fibers that transmit an image of the knee through a small camera to a television monitor. Most patients experience only mild discomfort when they wake up after a knee arthroscopy.

Recovery from knee arthroscopy is much faster than recovery from traditional open knee surgery. Still, it is important to follow the instructions carefully after returning home and have someone to check on you that evening. Wounds will be dressed with waterproof dressings under the outer bandage. The outer bandage may be removed 24hrs after surgery. The smaller dressing is to remain intact for 7-10 days. Bearing Weight Generally, patients can walk unassisted immediately after arthroscopy unless instructed otherwise. As discomfort subsides and strength returns in the leg, more weight can be taken on the leg. Exercises to Strengthen the Knee It is important to exercise the knee regularly for several weeks following surgery to strengthen the muscles of the leg and knee. A physiotherapist may help with an exercise program.