

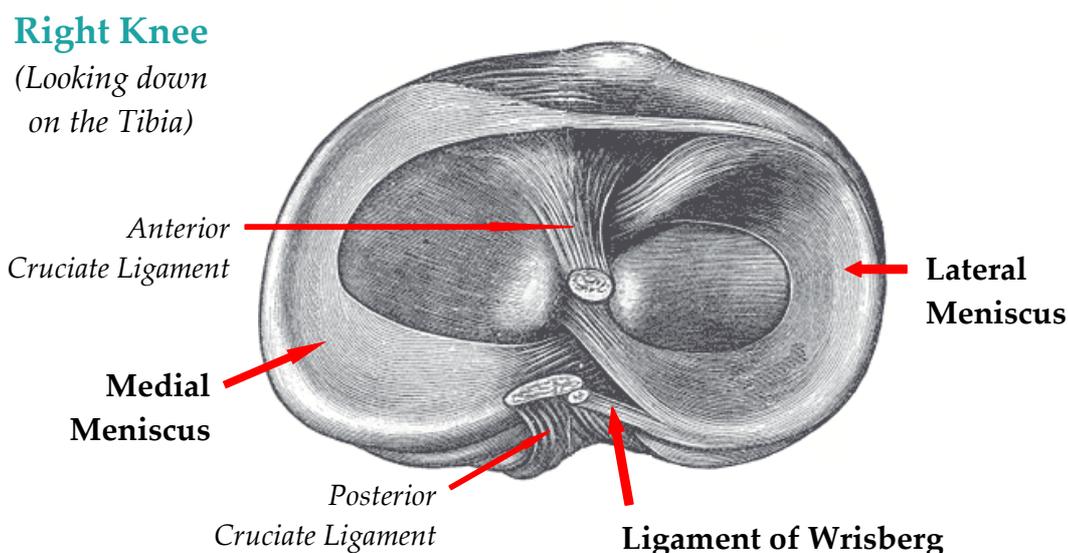
## Meniscal Tears of the Knee Joint

You have damaged one of the pieces of fibrous cartilage that act as a joint spacer and cushion in the knee joint.

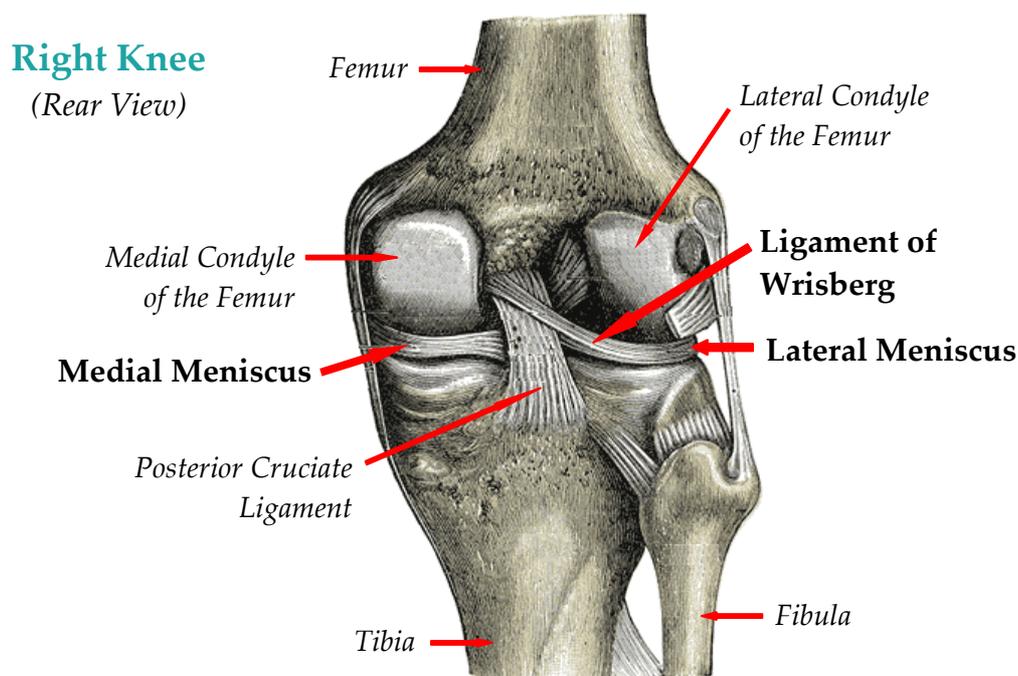
### (a) What are the Knee Menisci?

The *menisci* of the knee joint are composed of *fibrocartilage*. Each is semicircular in shape. The lateral meniscus is also called the *external semilunar fibrocartilage*, and similarly the medial meniscus may be called the *internal semilunar fibrocartilage*. These are what is being discussed when people talk about having surgery upon their knee cartilage. Figures 1 & 2 below show the basic anatomy.

**Figure 1: The Menisci of the Knee I**



**Figure 2: The Menisci of the Knee II**



## (b) How Does a Meniscus Tear?

Either the lateral or medial meniscus may tear if the knee is twisted. However tears of the *medial* meniscus are much more common than tears of the *lateral* meniscus. That may be because of the existence of the *Ligament of Wrisberg*. See Figure 2 on the previous page.

This ligament is a strong *fasciculus* (fibrous sliver), an extension of the lateral meniscus which attaches to the *medial condyle of the femur* immediately behind the *posterior cruciate ligament*. Like all ligaments, it provides *stability*, in this case probably preventing the lateral meniscus from sliding sideways out of the joint, and helping to stabilise it against possible tear.

## (c) Symptoms

Your practitioner may become suspicious of a meniscal tear if you present with the following:

1. Pain or soreness at a specific location along either the medial or lateral joint line. The joint line is where the upper leg bone (femur) and lower leg bone (tibia) meet.
2. The pain can be elicited by *either hyperextension* (over-straightening the leg) or *hyperflexion* (completely bending the knee) of the knee joint or both.
3. The joint may suddenly lock without warning because the free motion of the joint is limited or blocked by the torn portion of the meniscus.
4. Pain is elicited if, with the knee flexed at approximately 90°:
  - a. The foot is rotated *externally* or outwardly (medial meniscal tear),
  - b. The foot is rotated *internally* or medially (lateral meniscal tear).

## (d) Treatment

Conventional medical wisdom is outlined below.

1. If the tear is severe or the client is older than 40 years of age, surgery is most likely.
2. If the tear is relatively minor and the client is under 40 years of age, the injury may heal spontaneously, in which case the specialist may suggest a “wait and see” approach coupled with gentle rehabilitation movement and exercise.

A doctor will most likely refer to a specialist who will carry out an MRI scan to confirm the diagnosis. Treatment will depend on both the severity of the tear, and the age of the client.

However new information has come to light that physical therapy to restore joint function is just as effective as surgery for meniscal tears<sup>1</sup>. Moving the joint and light exercise may promote healing.

Discuss this with your practitioner.

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<sup>1</sup> Katz JN, Brophy RH, Chaisson CE, de Chaves L, Cole BJ, Dahm DL, Donnell-Fink LA, Guermazi A, Haas AK, Jones MH, Levy BA, Mandl LA, Martin SD, Marx RG, Miniaci A, Matava MJ, Palmisano J, Reinke EK, Richardson BE, Rome BN, Safran-Norton CE, Skonieczki DJ, Solomon DH, Smith MV, Spindler KP, Stuart MJ, Wright J, Wright RW, Losina E. “Surgery versus Physical Therapy for a Meniscal Tear and Osteoarthritis.” *New England Journal of Medicine*. 2013 March 18. [Epub ahead of print]. The abstract may be found at: <http://www.ncbi.nlm.nih.gov/pubmed/23506518>.