

The knee consists of three separate compartments:

1. Patello femoral compartment: This is the part of the joint between the back of the patella (kneecap) and the front of the upper leg (femur).
2. The medial tibio femoral joint: This is the joint, on the inside of the leg, between the bottom end of the upper leg (femur) and the top of the lower leg (tibia).
3. The lateral tibio femoral joint: This is the joint, on the outside of the leg, between the bottom end of the upper leg (femur) and the top of the lower leg (tibia).

The articular cartilage:

The opposing bone surfaces in all three compartments are covered with a 2-3 mm thick layer of articular cartilage - can be compared with the thread on a car tyre. This is amazing tissue that can, over many years, sustain loads that is often as high as 8 x body weight.

The menisci: (calling it cartilage is very confusing as it is different structure from articular cartilage).

The menisci are two C- shaped structures that lie on the outer rim of the joint between the upper leg (femur) and the lower leg (tibia). In a way it can be compared to a washer that decrease the loads on the opposing articular cartilage surfaces.

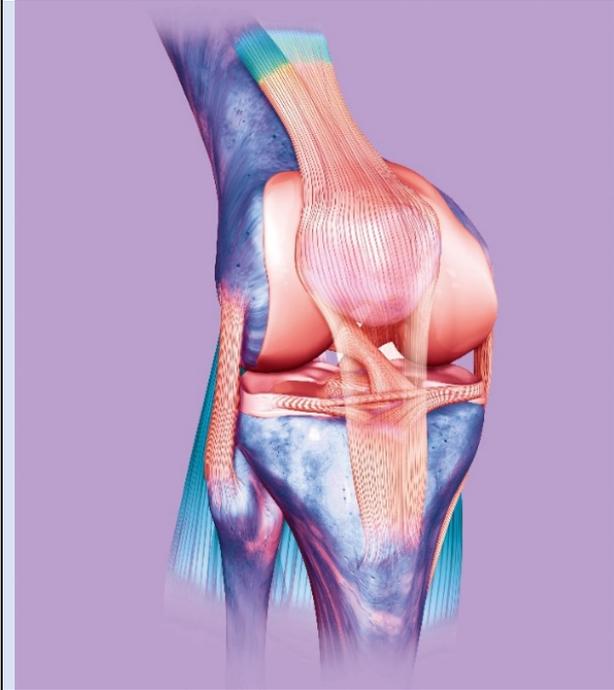
- a. Medial meniscus: This lies on the inner half of the knee joint between the articulating surfaces of the upper and lower leg.
- b. Lateral meniscus: This lies on the outer half of the knee joint between the articulating surfaces of the upper and lower leg.

The ligaments of the knee:

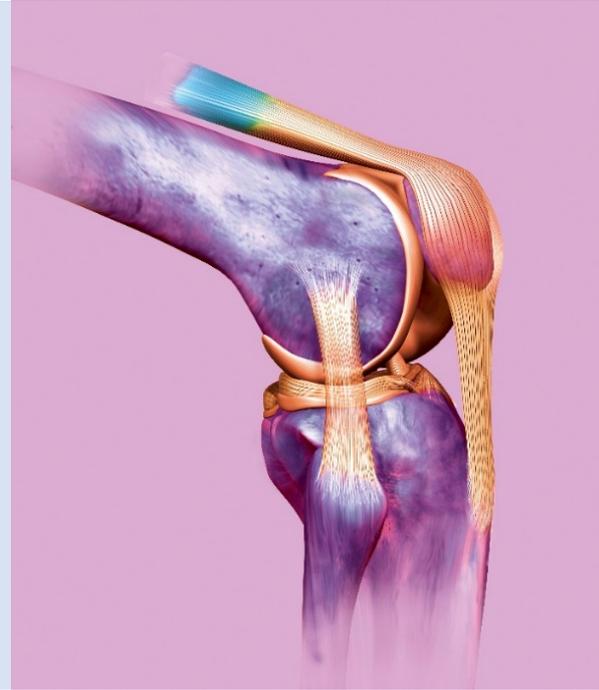
We can roughly say that there are five ligaments in and around the knee.

1. Around:
 - a. Medial collateral ligament (MCL): On the inside of the knee this ligament joins the bottom end of the upper leg (femur) with the upper end of the lower leg (tibia).
 - b. Lateral collateral ligament (LCL) : On the outside of the knee this ligament joins the bottom end of the upper leg (femur) with the upper end of the lower leg (tibia) and fibula).
 - c. Medial patello femoral ligament (MPFL): This ligament joins the inner rim of the kneecap (patella) with the inner side of the bottom of the upper leg (medial femur).
2. Inside the knee:
 - a. Anterior cruciate ligament (ACL): Joins the middle front of the upper lower leg (anterior tibia) with the bottom upper leg (femur).
 - b. Posterior cruciate ligament (PCL): Joins the middle back of the lower leg (posterior tibia) with the bottom of the upper leg (femur).

RIGHT KNEE INSIDE VIEW



Front view



Side view from the outer side

RIGHT KNEE LIGAMENTS



Anterior Cruciate (ACL)



Posterior Cruciate (PCL)



Lateral colateral (LCL)



Medial Colateral (MCL)