

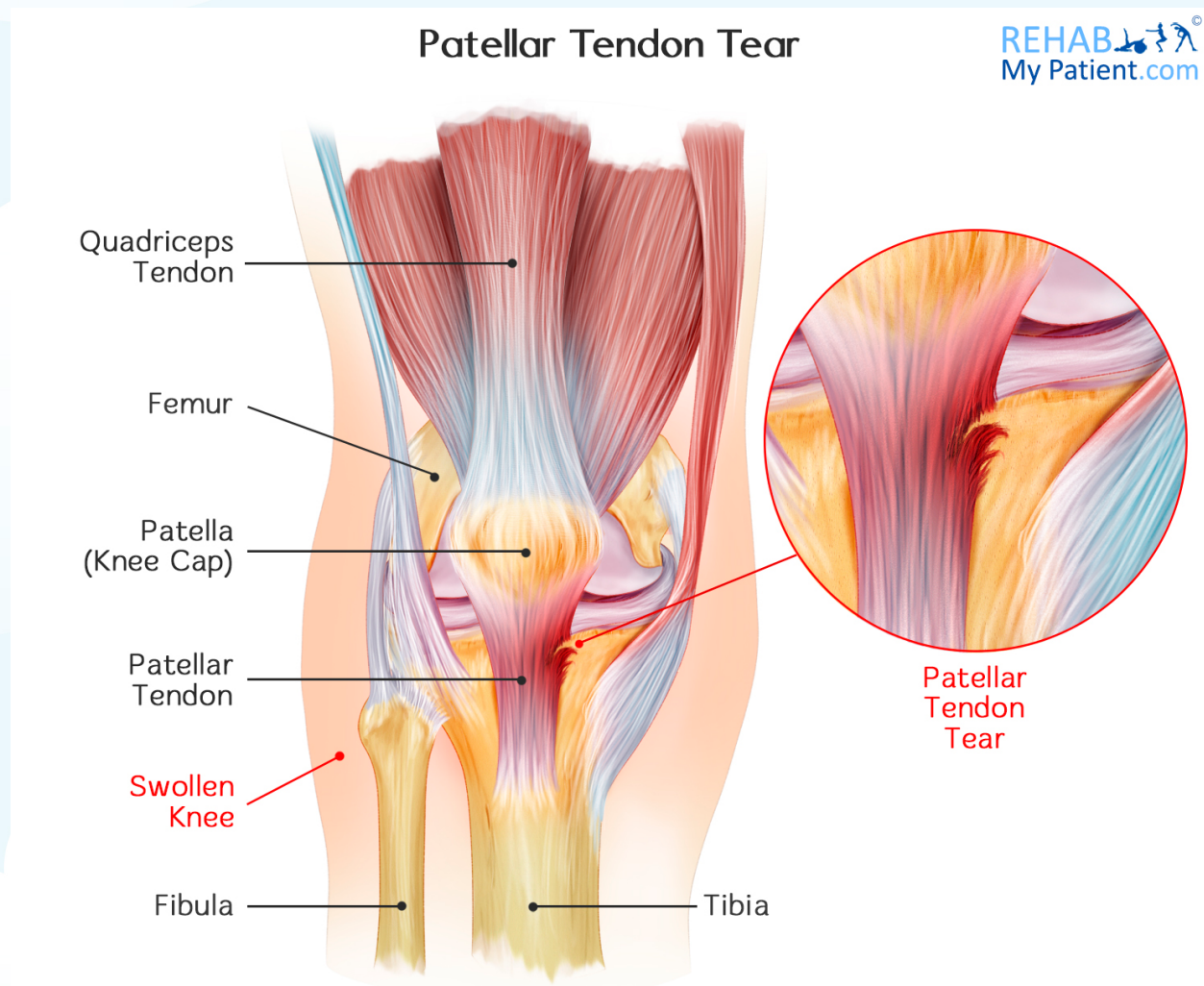
Patellar Tendon Tear

Patellar tendons work along with the muscles located in the front part of the thigh to help straighten the leg. Even though anyone could end up injuring the patellar tendon, tears tend to be more common amongst those who are middle-aged and who are involved in playing jumping or running sports. Complete tears result in a disabling and serious injury. It often requires surgery for you to be able to regain full function in the knee.

Tendons are responsible for attaching the bones and muscles together. The patellar tendon joins the top part of the shinbone and the bottom part of the patella together. It is essentially a ligament connecting the two bones together, the tibia and the patella.

For a tear to occur, the tendon must either be degenerate (so the tissues are naturally weaker), or the force must be significant. The tendon could tear slightly, or completely rupture. Tendinopathy is actually far more common, which is a chronic inflammation of the tendon. A tendon tear is rare. If you do happen to tear the tendon, you will be unable to weight bear on your leg and walking will be very limited without crutches.

Patellar Tendon Tear Anatomy



The knee is one of the biggest and most complex of all joints found in the body. It joins the shin bone and the thigh bone together. The smaller bone running alongside of the tibia and the patella are the two other bones that complete the knee joint. Tendons keep the leg muscles and knee bones connected to enable the knee joint to move. Ligaments join all of the knee bones and deliver stability to the knee.

The anterior cruciate ligament is the one that prevents the femur from sliding backward along the tibia. The medial and lateral collateral ligaments make sure the femur doesn't slide from one side to the other. It is the posterior cruciate ligament that prevents the femur from sliding forward along the tibia.

Another name for the patella tendon is the ligamentum patellae, because it's a very thick and strong fibrous ligament-like tendon. It holds the patella down while the knee extends (straightens). The quadriceps are incredibly strong muscles allowing us to squat, and stand up from a seated position. They also allow us to jump and run. So they need a very strong anchor point, and that's the attachment of the patellar tendon. So this tendon has to hold the patella down, which creates a fulcrum allowing a very high efficiency and lever-arm of the quadriceps.

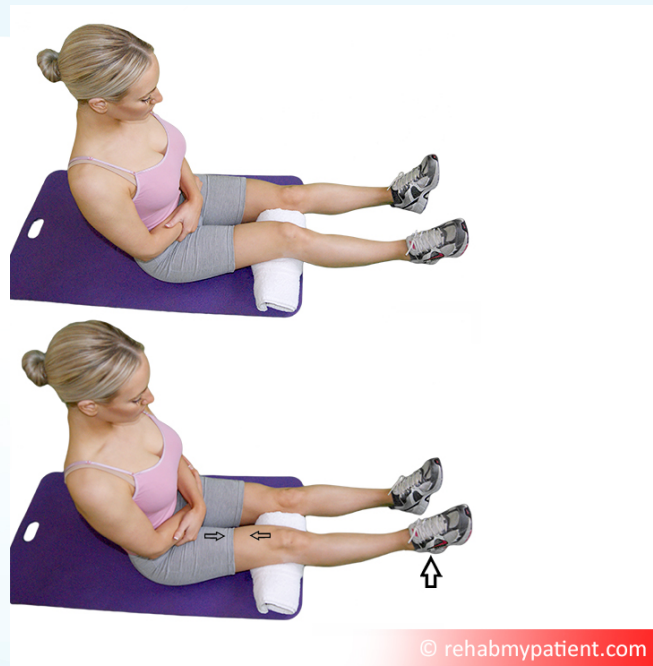
How to Treat a Patellar Tendon Tear:

1. Immobilization

The doctor might recommend that you wear a brace or knee immobilizer. This works to keep the knee straight while in the healing phase. You will probably need crutches during this time to make sure you avoid placing a great deal of weight on the affected leg. Expect the knee to be in the brace or immobilizer for around three to six weeks.

2. Physical Therapy

Specific exercises will help to restore movement and strength in the knee. While wearing the brace, the physical therapist might recommend a specific set of exercises that will strengthen the quads. Straight-leg raises are often chosen. As time progresses, the therapist or doctor will unlock the brace. This allows you to move freely with an increased range of movement. During the healing process, you will be provided additional strengthening exercises.



Tips:

- Direct impacts to the front part of the knee from a direct blow or fall are common causes of tears in the knee. Cuts are also known for causing this particular condition.
- If the knee is bent when the foot is planted, the patellar tendon can end up tearing. Use caution when jumping up or landing down from a jump.
- If the tendon becomes inflamed, it can cause it to weaken, thus resulting in small tears.
- Exercise caution when participating in activities involving jumping or running.
- Diseases disrupting the blood supply in the knee can also lead to tears in the patellar tendon.