

PATELLAR TENDINOPATHY (JUMPER'S KNEE)

What is patellar tendinopathy?

Tendons are strong bands of connective tissue that attach muscle to bone. When a tendon is acutely injured it is called a strain. Tendonitis is when a tendon is inflamed. When there are micro-tears in a tendon from repeated injury it is called tendinosis. The term tendinopathy refers to both inflammation and micro-tears.

Patellar tendinopathy, also called jumper's knee, is inflammation in the band of tissue (the patellar tendon) that connects the kneecap (patella) to the shinbone (tibia).

How does it occur?

The most common activity causing patellar tendinopathy is too much jumping. Other repeated activities such as running, walking, or bicycling may lead to patellar tendinopathy. All of these activities put repeated stress on the patellar tendon, causing it to be inflamed.

Patellar tendinopathy can also happen to people who have problems with the way their hips, legs, knees, or feet are aligned. This alignment problem can result from having wide hips, being knock-kneed, or having feet with arches that collapse when you walk or run, a condition called over-pronation.

The patellar tendon may sometimes tear completely, or rupture, during strenuous activity.

What are the symptoms?

Symptoms may include:

- pain and tenderness around the patellar tendon
- swelling in your knee joint or swelling where the patellar tendon attaches to the shinbone
- pain with jumping, running, or walking, especially downhill or downstairs
- pain with bending or straightening the leg
- tenderness behind the kneecap

If your patellar tendon is ruptured, usually you will have sudden severe pain and you will be unable to straighten your leg or walk.

How is it diagnosed?

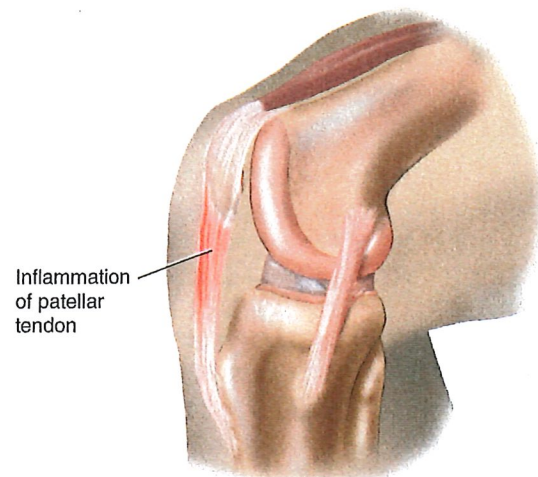
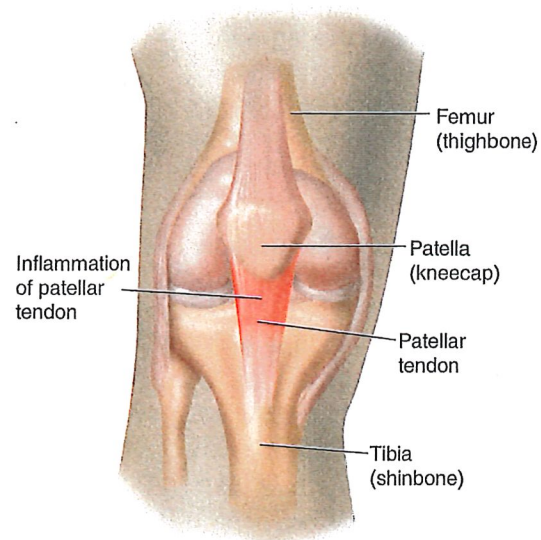
Your healthcare provider will examine your knee to see if you have tenderness at the patellar tendon. He or she will also have you run, jump, or squat to see if this causes pain. Your feet will be examined to see if you have a problem with over-pronation. Your provider may order X-rays or an MRI of your knee.

How is it treated?

Treatment includes the following:

- Place an ice pack on your knee for 20 to 30 minutes every 3 to 4 hours for the first 2 to 3 days or until the pain goes away.
- Elevate your knee by placing a pillow underneath your leg when your knee hurts.
- Take anti-inflammatory pain medicine, such as ibuprofen, as prescribed by your healthcare provider (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval).

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- Do the exercises recommended by your healthcare provider or physical therapist.

Your healthcare provider may recommend that you:

- wear shoe inserts (called orthotics) for over-pronation (you can buy orthotics at a pharmacy or athletic shoe store or they can be custom-made)
- use an infrapatellar strap, a strap placed beneath the kneecap over the patellar tendon.
- wear a neoprene knee sleeve, which supports your knee and patella.

While you are recovering from your injury, you will need to change your sport or activity to one that does not make your condition worse. For example, you may need to bicycle or swim instead of run. In cases of severe patellofemoral pain syndrome, surgery may be recommended. Your healthcare provider will show you exercises to help decrease the pain behind your kneecap.

When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your knee recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- Your injured knee can be fully straightened and bent without pain.
- Your knee and leg have regained normal strength compared to the uninjured knee and leg.
- Your knee is not swollen.
- You are able to jog straight ahead without limping.
- You are able to sprint straight ahead without limping.
- You are able to do 45-degree cuts.
- You are able to do 90-degree cuts.
- You are able to do 20-yard figure-of-eight runs.
- You are able to do 10-yard figure-of-eight runs.
- You are able to jump on both legs without pain and jump on the injured leg without pain.

How long will the effects it last?

The effects of patellar tendinopathy vary. A tendon that is only mildly inflamed and has just started to hurt may improve within a few weeks. A tendon that is significantly inflamed and has been painful for a long time may take up to a few months to improve. You need to stop doing the activities that cause pain until your tendon has healed. If you continue doing activities that cause pain, your symptoms will return and it will take longer to recover.

How can I prevent patellar tendinopathy?

Patellar tendinopathy is usually caused by overuse during activities such as jumping or running or biking uphill. It can best be prevented by having strong thigh muscles.

The following may also help prevent injury:

- When you exercise, wear shoes that fit properly and are right for the activity.
- Gently stretch before and after exercising.