

Patellofemoral Pain Syndrome

Kneecap Femur Ouch

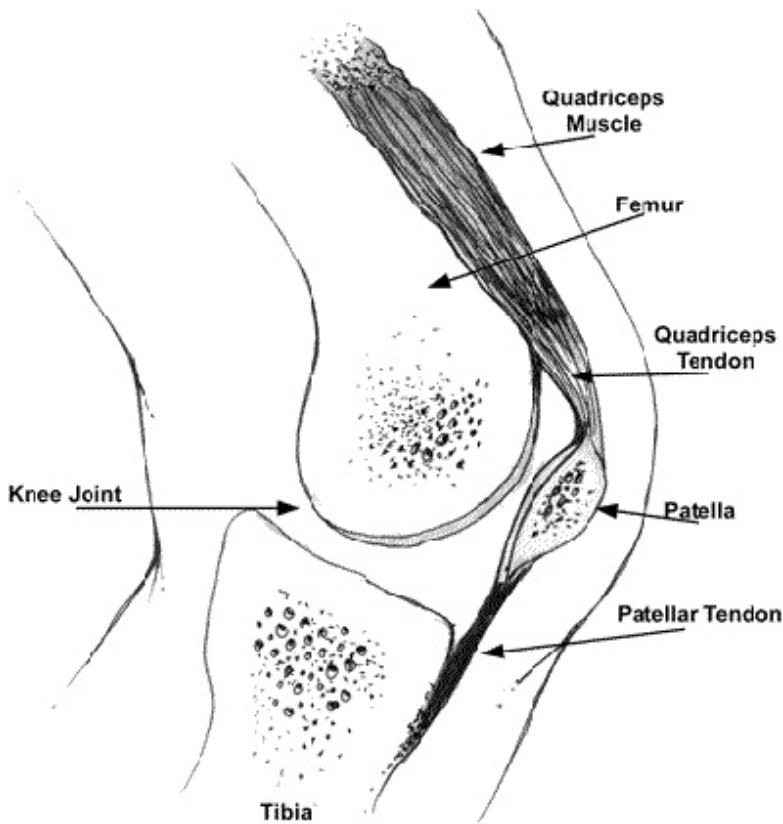


Figure II
Side View of Knee Joint

What is patellofemoral pain syndrome?

It is pain behind the knee cap or on the kneecap. It has been given different names, including patellofemoral pain disorder, patellar misalignment, runner's knee and chondromalacia.

How does it occur?

It can occur from over use of the knee in sports and activities such as running, walking, jumping or bicycling. The knee cap (patella) is attached to the large group of muscle of thigh called quadriceps. It is also attached to the shin bone by the patellar tendon. Repeated bending and straightening of the knee can irritate the inside surface of the knee cap and cause pain. Patello femoral pain syndrome can be the result of the way your hips, legs, knees and feet are aligned.

This alignment problem can be caused by your having wide hips or weak thigh muscles, being knocked knee or having feet with arches that collapse when walking or running (a condition called over pronation.)

What are the symptoms?

The main symptom is pain on the anterior aspect of your knee, behind the knee cap. You can feel pain around your knee cap or to the sides. You may have pain when you walk, run or sit for a long time with your knees bended. Pain is generally worse when walking downhill or down stairs. Your knee may swell a little at times. You may feel a snapping, popping or grinding in the knee.

How is it treated?

You can take an anti-inflammatory medication such as over the counter ibuprofen as needed for pain.

The most important treatment is physical therapy and exercises. You can start with these exercises but your doctor may recommend going to physical therapy for a couple of weeks to get you into the routine of doing these exercises daily. You do stretches before you do strengthening exercises.

1. **Standing hamstring stretch:** Place the heel of your leg on a stool about 15 inches high. Lean forward, bending at the hips until you feel a mild stretch in the back of your thigh. Make sure you do not roll your shoulder. Bend at the waist when doing this or you will stretch your lower back instead. Hold the stretch 30 to 60 seconds. Repeat 3 times.



2. **Quadriceps stretch:** Stand an arm's length away from the wall, facing straight ahead. Brace yourself by keeping the hand on one side against the wall. With your other hand, grasp the ankle and pull your heel up toward your buttocks. Do not arch or twist your back. Hold this position for 30 seconds. Repeat 3 times.



3. **Quadriceps set:** Sit on the floor with one leg straight out in front of you. Try to tighten up the muscles at the top of your thigh by pushing the back of your knee down into the floor. Concentrate on your contraction on the side part of your thigh. Hold this position for 5 seconds. Repeat 10 times. Do 3 sets of 10.



4. **Straight leg raise:** Sit on the floor with one leg straight and the other leg bent so the foot is flat on the floor. Pull the toes of one leg toward you as far as you can comfortably while tightening the muscles on the top of your thigh. Raise your leg 6 to 8 inches off the floor. Hold this position for 3-5 seconds and then slowly lower your leg. Repeat 10 times. Do three sets of 10.

