

PATELLOFEMORAL PAIN SYNDROME

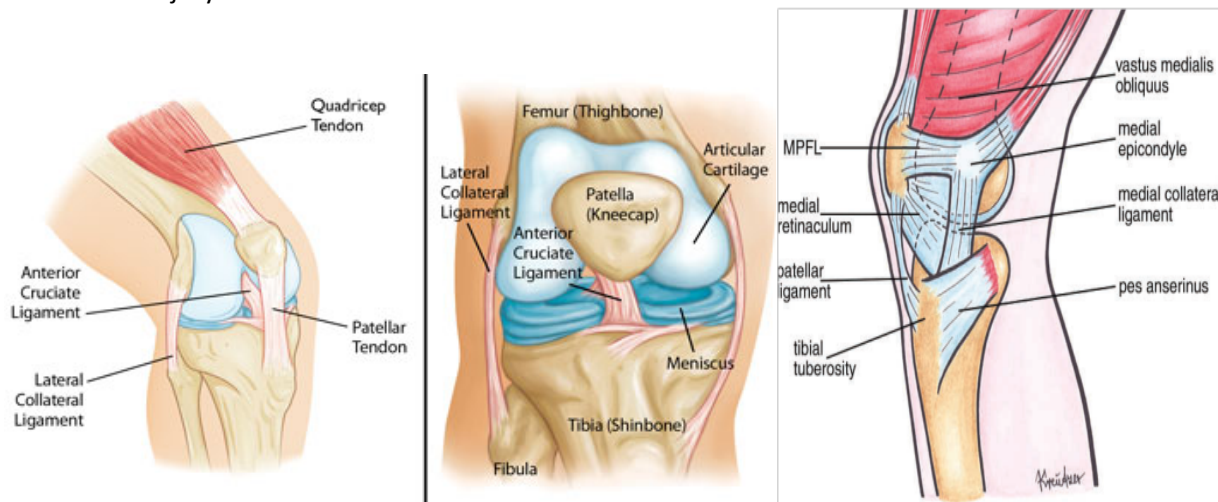
What is Patellofemoral Pain Syndrome?

Patellofemoral Pain Syndrome is a term used to describe pain in the knee. More specifically, the pain is mostly localized to the patella (kneecap) and the femur (thighbone). It is a very common problem, especially among active people.

What causes Patellofemoral Pain Syndrome?

There are several factors that contribute Patellofemoral Pain Syndrome. Everyone is different, you may have one or a combination of the following problems. Consult your provider regarding which of the following best categorizes your Patellofemoral Pain Syndrome:

- Malalignment of the knee cap- the knee cap does not correctly “track” in the trochlear groove, the groove of the femur in which the knee cap sits
- Patellar instability- the knee cap does not correctly track in the trochlear groove and dislocates to the outside at the top of the knee
- Chondromalacia of the patella (aka patellar osteoarthritis)- the knee cap is rubbing against the thigh bone, this leads to inflammation and break down of the articular cartilage, the smooth coding on the bottom of the femur
- Weakness/ tightness of quadriceps muscles (thigh muscle)- weak or tight muscles put more stress on the knee joint
- Inflammation or tightness of tendons surrounding the knee
- Injury



What are common symptoms of Patellofemoral Pain Syndrome?

Common symptoms include a constant, aching pain at the front of the knee. This pain is often increased with kneeling, prolonged sitting, going up and down stairs, and exercises that put increased stress on the knee such as running or jumping.

What are my treatment options for Patellofemoral Pain Syndrome?

There are several options to treat Patellofemoral Pain Syndrome; they can best be broken down into treatments that do not require surgery and treatments that require surgery. Be advised, not all of the below treatments are appropriate for your Patellofemoral Pain Syndrome. Your provider will decide which treatment plan is best for you.

- Conservative (Nonsurgical) Treatment

○ Anti-inflammatories

Patellofemoral Pain Syndrome is often related to inflammation, so anti-inflammatories are a key part of treatment. There are several different modalities:

▪ Cortisone Injection

These injections are done in the office with ultrasound guidance. Cortisone is a steroid that is injected into the capsule of the knee and is a potent anti-inflammatory. Relief of symptoms depends on the person, but can last up to 3-6 months.

▪ NSAIDs such as Naprosyn EC/Aleve, Mobic, Ibuprofen/ Advil/ Motrin

NSAIDs when used for anti-inflammation purposes are best used continuously for 2 weeks. When taking these medications, be sure to take with food to avoid irritating your stomach lining. Additionally, you should not take multiple types of NSAIDs at once.

▪ Topical NSAIDs such as Voltaren Gel, Flector Patches

Do **NOT** take any other NSAIDs while using a topical anti-inflammatory.

- Flector Patch is an adhesive that contains anti-inflammatory medication which last for 12 hours and can be worn continuously.
- Voltaren Gel also contains anti-inflammatory medication. It is applied and massaged into the affected area four times a day.

▪ Ice- very simple and very effective, especially after intense exercise.

○ Lidoderm Patch

Lidoderm patch is an adhesive numbing patch. It should be worn directly over the area of pain, alternating 12 hours on 12 hours off. If you have also been prescribed flector patch, we recommend wearing the Flector patch during the night while you are asleep and the lidoderm during the day.

○ Hylauronic Acid (HA) Injections

HA is an injectable, synthetic version of the fluid that naturally lives in your knee. It is used to treat cartilage conditions that cause knee pain. They are administered in the office as a series- once a week for three weeks.

- Obtaining HA injections can be a process. Our office will submit a request for authorization for the injections for private insurances. We may need to recruit you to communicate with your insurance company to help approve the authorization. Self paying patients, worker's compensation, no fault and medicare insurances may have different guidelines and you will be instructed how to obtain these authorizations by our office staff.

▪ Common brands : Euflexxa, supartz, orthovisc and synvisc

○ Physical Therapy and/or Braces

What are my treatment options for Patellofemoral Pain Syndrome? (continued)

- Surgical Treatments

Be advised, not all of the below treatments may be appropriate for you.

○ TTT

A tibial tubercle transfer (also known as a Fulkerson Osteotomy) is a surgical procedure that is used to correct for patellar instability or patellar malalignment. Another indication for a tibial tubercle transfer is patellar osteoarthritis. Depending on what anatomy needs to be addressed and corrected, there are a couple choices for repositioning. This will be determined through the use of physical examination and MRI calculations.

The procedure consists of an incision, which is made a few centimeters below the kneecap (patella) along the top portion of the shin bone (tibia). The patella is embedded in a tendon that inserts on a bony prominence at the shin bone, known as the tibial tuberosity. The patella is repositioned by surgically cutting and moving the attachment on the shin bone. Through the incision tools are used to cut the bone and it is strategically placed in a location determined by the surgeon based on your needs. The new position is held through the use of 2 metal screws. The fascia of the lower leg is released to prevent anterior compartment syndrome. Depending on your injury your surgeon may recommend additional procedures for cartilage damage or other ligamentous damage.

○ MPFL Reconstruction

The MPFL is a ligament that stabilizes the patella. It is disrupted when someone dislocates their patella. It helps to restrain your kneecap from displacing laterally. This procedure is done through a small incision made at the inside portion of the knee. The injured ligament will be replaced with a graft, usually a hamstring tendon from the same leg or a cadaver allograft. The graft is attached to the patella via small absorbable screws that hold the graft in place.

○ Patellofemoral Replacement (PFJR)

A Patellofemoral joint replacement (also known as a partial knee replacement) is a surgical procedure that is used to address patellar osteoarthritis. To be a candidate for a PFJR a patient would demonstrate arthritis primarily affecting the patellofemoral joint with well-preserved medial and lateral compartments. This will be determined through the evaluation of X-ray and MRI imaging. The procedure consists of an incision that extends across the front of the knee over the joint. It looks just like the incision of a Total Knee Replacement but is slightly smaller. Just like a total knee replacement, the surface of the bone is cleaned and then capped with metal and plastic implants. For more information about the specific implant used by Dr. Shubin Stein and Dr. Strickland please refer to the Zimmer website.