

Patellofemoral Knee Pain

What is Patellofemoral knee pain?

Patellofemoral syndrome (PFS) is pain in the front of the knee, or behind the kneecap. It may also be called patellar malalignment, chondromalacia patella, runner's knee, biker's knee, and patellofemoral stress syndrome. It is one of the most common causes of knee pain in active adults and teens. Females tend to have a higher risk of PFS than males.

What causes it?

Most often it comes from overuse of the knee in sports and activities, not a single injury. PFS can occur if there is too much movement in your kneecap. It may also come from the way the hips, knees, and feet are lined up. People who suffer from PFS often have muscle imbalances in their hips and thighs.



What are the symptoms?

The main symptom is pain behind the kneecap. The pain can occur in both legs. The pain is often related to activity. Squatting, sitting for a long time, or going up and down stairs can make the pain worse and may cause swelling. It does not cause a lot of swelling of the knee. There may be a grinding or popping sensation. Young people may describe that their knee "catches" or "gives way."

How is it diagnosed?

Your doctor will review your symptoms and do an exam of your knees to make the diagnosis. Often no tests are needed, but X-rays may be taken.

How is it treated?

Treatment of PFS is very personalized. It rarely requires surgery. The goal of care is to return you to your sport as quickly and safely as possible.

- Activity change is a must. You may not be allowed to climb stairs or run hills. You may also need to cut back on the amount of time spent in practice or training. As the injury improves, you can increase your activity level. Sometimes cross training by biking or swimming instead of running can keep you in shape while limiting your pain.
- It is important to ice massage your knee(s) several times a day for 10 to 15 minutes after exercise. Here's how to do an ice massage to help with swelling and pain:
 1. Fill several small styrofoam or paper cups with water and freeze them.
 2. Sit down on a chair or couch and put your knee up in a relaxed position.

Treatment (continued)

3. Peel the rim off the top of the cup so the ice is showing.
 4. Firmly rub the ice all around the knee for 10 to 15 minutes. Peel the rim off as needed.
 5. Put the cup in the freezer and use it again until it is gone.
- Ice the knee after activity to help reduce inflammation and discomfort. Here's how to ice the knee:
 1. Sit down on a chair or couch and put your knee up in a relaxed position.
 2. Take a ready made ice pack, plastic bag full of ice or a package of frozen peas or corn and cover it with a light towel or cloth.
 3. Put it over the area of the knee that is hurting.
 4. Keep it on for 10 to 15 minutes.
 5. Put the cold pack back in the freezer.
 6. Don't eat the frozen vegetables once they are used for icing.
 - Take anti-inflammatory medicine as prescribed by your doctor to reduce pain. Stop after 1 to 2 weeks if the medicine does not help.
 - Exercises the doctor and physical therapist recommend should help to make your hips and legs stronger. This normally lessens the pain and helps keep it from coming back.
 - You may need to wear a knee brace or shoe inserts (orthotics) to correct alignment problems.

What follow-up care might be needed?

Your doctor should check you in 4 to 6 weeks. You may need to be seen more often if you have pain and limited function.

When can I return to activity?

- In general, the longer you have symptoms before starting treatment, the longer it will take to get better. It may take several months to improve.
- You must have full strength and motion in your knee before returning to full activity.
- You must be able to sprint, jump, and cut without a lot of pain.
- Your sports medicine professional will help you decide when you can return to practice and competing.

ALERT: Call your doctor, nurse, or clinic if you have any questions or concerns or if you:

- Have pain that gets worse even with pain medicine.
- Are limping more.
- Have increased swelling or shooting pains in your legs.
- Have special health care needs that were not covered by this information.

This teaching sheet is meant to help you care for your child. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment, and follow-up.