

# PATELLOFEMORAL PAIN SYNDROME

Patellofemoral pain syndrome, or PFPS for short, is essentially pain under and around the kneecap. PFPS is a very common knee problem in physically active young adults, particularly women. It can occur in one or both knees and is one of a group of problems that we call “overuse injuries.” PFPS commonly occurs either when you are starting a new exercise program or accelerating your usual exercise, which leads to “overuse” of the knee(s) and causes inflammation and pain.



To understand what is happening, visualize the way that the kneecap moves as the knee is flexed and extended. Although your kneecap looks flat, it is in fact triangle-shaped on the under side. This triangle tracks back and forth in a groove between the two balls (condyles) on the bottom of your femur (thigh bone).

Think of a chicken drumstick, which is the chicken version of your thigh/femur. The two balls at the small end are the condyles. If the chicken had a kneecap, it would glide between these two condyles. Also, think about that white, smooth stuff that covers the condyles. That is cartilage, which we have in our knees, too. If the kneecap does not track smoothly between the condyles due to alignment issues (more common in women, due to a wider pelvis for childbirth purposes), or if that kneecap is overused (particularly in pounding and jumping sports like running, basketball, etc.), then the condylar cartilage and the cartilage on the underside of the kneecap get beat up and inflamed. Inflammation causes pain and thus patellofemoral pain syndrome.

There are a number of things that you can do deal with this problem. The first is pretty simple: if it hurts, don't do it. You will need to discontinue your running/pounding sports for a while, and substitute low-impact exercise like swimming or elliptical trainers. Ice is very helpful, particularly when it is massaged directly into the lower edge of the kneecap. Ask your clinical provider for instructions. Anti-inflammatory medications can also help, but be sure to seek the advice of your clinical advisor about dosage and frequency. Finally, therapeutic exercise can help retrain your patella to track more correctly, by changing the direction of pull of your quadriceps (thigh) muscle. You can find a set of excellent exercises to reduce your pain and rehabilitate your knee at the American Academy of Family Physicians patient information web site (familydoctor.org), at <http://familydoctor.org/x1590.xml> .

Michael J. Huey, MD, January 2004