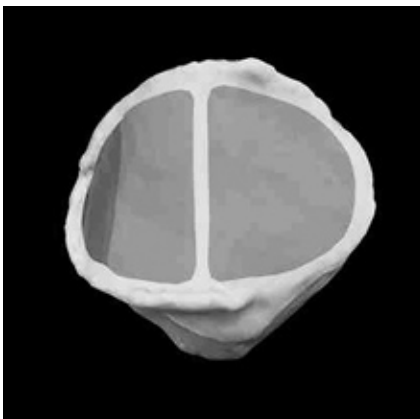


## Patellofemoral Stress Syndrome (PFSS)



Patellar motion throughout knee flexion and extension



Posterior view of the patella

Patellofemoral Stress Syndrome (PFSS) is a term used to describe anterior knee pain due to abnormal motion or pressure between the kneecap (patella) and thighbone (femur).

### Signs and symptoms

- Dull, achy pain in the front and/or sides of the kneecap
- Increased pain during and/or after activity (running, walking, aerobics, stair climbing, bicycling)
- Stiffness or soreness after prolonged sitting
- Knee pain that causes the muscle to feel weak or the knee to give out

### Causes

- Activities requiring repetitive use of the knee
- Quadriceps muscle group weakness, specifically the vastus medialis muscle
- Bony malalignment between the femur, patella and tibia
- Abnormal mid-foot pronation
- Training errors: rapid increases in activity, intensity or duration
- Inappropriate or broken down athletic shoes
- Muscle tightness, specifically the hamstrings, calf muscles and iliotibial band

### Treatment

- Eliminate daily activities that stress the knee and cause pain (stair climbing, kneeling, etc.)
- Temporarily rest or modify physical activities that cause knee pain
- Begin a specific strengthening and stretching program that targets lower extremity muscles (consult your athletic trainer or physical therapist for a plan)
- Ice your knee(s) after activity for 15-20 min.
- Anti-inflammatory medications as prescribed by a physician
- Correct abnormal foot pronation with arch supports or orthotics

It can be difficult to completely relieve the pain of PFSS due to its many causes. Treatment will usually reduce the amount of pain and allow an athlete to continue activity, though activities may need to be modified.

### Prevention

- Avoid sudden changes in training and gradually progress into new programs
- Maintain good lower extremity flexibility and strength
- Begin treatment early when symptoms first arise