

**Boulder Office**

5387 Manhattan Circle #200  
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940 Central Park Drive  
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## Patellofemoral Pain

### What is Patellofemoral Pain?

Patellofemoral pain (PFP) is pain at the front of your knee. It may happen when the kneecap (patella) moves differently than usual.

### What are the symptoms of PFP?

If you have PFP, you may feel pain behind or underneath your kneecap. The pain may be in one or both knees. It may become worse if you run, go up/down stairs, or sit with your knee bent for a long time (like in the movie theater or driving in the car).

### How is it treated?

It depends on the patient and the degree of damage to your kneecap. Usually, putting ice on your knee, changing your activities, and following a physical therapy program works best. This program may include exercises to make your muscles stronger and more flexible to allow the kneecap to track more normally. For those with low arches, using shoe insoles may help in reducing symptoms. It may take several weeks of exercise and use of insoles for the pain to go away.

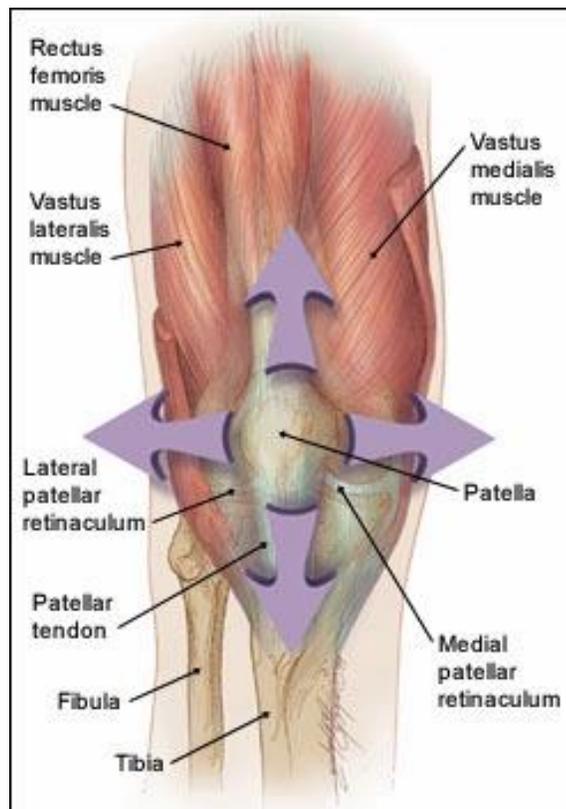


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## Home Exercises



### Quadriceps Stretch

Stand up straight and use a counter or chair back for balance. Pull your belly button to your spine. Lift your right leg off the ground, holding your ankle to your buttock with your knee pointed toward the floor, hips forward and level. Don't let the right hip drop or allow your back to arch. Keep the knee pointed straight down. Do not allow it to go out to the side. Hold the pose for 15 to 20 seconds. Repeat with the other leg.

As this stretch becomes too easy, try to place the bent knee on a surface at its height. Move the grounded leg forward to get a better stretch.



### VMO activation

Position yourself as shown. Contract your VMO muscle as demonstrated by your provider and hold for 10 to 20 seconds and then relax. Do the exercise 5 to 10 times. Repeat on the other side.



### Quadriceps Strengthening

Position yourself as shown. Raise your right leg several inches and hold it up for 5 to 10 seconds. Then lower your leg to the floor slowly over a few seconds. Do the exercise 5 to 10 times.

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**Clams:** Lie on your side with your hips and knees flexed. Keep your feet together and raise the upper knee without rotating our back or pelvis. Slowly lower. Repeat each side 10-15 times.



### Hip adductor strengthening



While sitting, squeeze a rubber ball between your knees. Hold the squeeze for 5 to 10 seconds. Do the exercise 5 to 10 times. (If you don't have a ball, put your hands or fists between your knees and then squeeze.)

**Squats:** Stand with your back, shoulders, and head against a wall and look straight ahead. Keep your shoulders relaxed and your feet 2 feet away from the wall and a shoulder's width apart. Place a soccer or basketball-sized ball behind your back. Keeping your back upright, slowly squat down to a 45-degree angle keeping the middle of your kneecap over your 2<sup>nd</sup> toe. Your thighs will not yet be parallel to the floor. Hold this position for a couple seconds and then slowly slide back up the wall. Repeat 10 times. Build up to 3 sets of 10 and increase time of the hold as the pain improves.



Wall squat with a ball