

Title: Exercise Therapy for Patellofemoral Pain Syndrome

Author: Mark Reiner

Date: 7/17/08

Key words: Patellofemoral pain Syndrome and Exercise Therapy

Abstract: Exercise Therapy is appropriate therapy for patellofemoral pain Syndrome. This PET gives a brief description of the syndrome and a series of exercises and stretches to help alleviate the pain.

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information

provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.

Patellofemoral Pain Syndrome  
Mark Reiner

What is Patellofemoral Pain Syndrome?

Patellofemoral Syndrome is a group of symptoms that often plague adolescents and young adults. It is associated with pain on the front of the knee surrounding and under the knee cap.

People with patellofemoral syndrome will often notice that they are having pain in the front of the knee when they are seated and also when they are walking up and down stairs. While it is not known exactly what causes this disorder, it is extremely common and likely has something to do with the way that the knee cap moves over the top of the knee joint. If your doctor tells you that you have this condition, there are things that you can do. Research has shown that strengthening the muscles around the knee helps to decrease pain.

What Should I do if I have this condition?

You should:

1) Decrease heavy activities like running, soccer, squatting. You should however increase things like swimming and walking.

2) Do these exercises to help strengthen your knee daily

1. Quadriceps strengthening: isometrics. Hold your right leg straight and flex the muscles on the front of your thigh for 10 to 20 seconds and then relax. Do the exercise 5 to 10 times. As this exercise becomes easier, try wall sits (leaning against a wall with your knees at a 90 degree angle and your feet on the floor) for 10-20 seconds, working up to 10-15 reps.

2. Quadriceps strengthening: straight leg lift. Lay on your back. Raise your fully extended 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.

3. Lateral thigh and buttock stretch While seated on the floor, twist your trunk to the right and use the back of your left arm to "push" your right leg. You should feel the stretch in your right buttock and the outer part of your right thigh. Hold the stretch for 10 to 20 seconds. Do the exercise 5 to 10 times.

4. Lateral thigh stretch standing - From the standing position, with your right leg crossed in front of your left leg, hold your hands together and move them toward the floor. Hold the stretch for 10 to 20 seconds. Do the exercise 5 to 10 times.

5. Hamstring stretch. While lying on your back on the floor, point your knee towards the ceiling. Grab your thigh with your hands to keep the thigh steady. Straighten your left knee and point your leg in the air until you feel a stretch. Hold

the stretch for 5 to 10 seconds. Do the exercise 5 to 10 times.

6. Middle thigh strengthening - While sitting, squeeze a rubber ball between your knees. Do this exercise for 5 to 10 seconds, then rest for approximately 10 seconds. Do the exercise 5 to 10 times.

7. Hip abductor strengthening: Position yourself standing on your left leg with the knee slightly bent. Slowly raise your right foot, with right knee slightly bent, to about 30 degrees, hold for a few seconds and then slowly lower the foot and straighten both legs. Do the exercise 10 times. Make sure that your pelvis stays level with the floor and that your knee stays aligned with your hip. The lateral hip should be strengthened also, by lying on your unaffected side with your unaffected leg bent and elevating the affected side from rest towards the ceiling and holding it for a count of

one. This should be done in three sets of fifteen.

8. Hip and buttock stretch. Position yourself with your left leg over your right leg, and place your hands over your left knee. Pull the knee gently toward your chest while sitting up very straight. Hold the position for 20 seconds and then rest for several seconds. Do the exercise 6 times.

9. Calf stretch. Pretend that you are going to push a wall over with your right leg forward, Keep your left heel on the ground to feel the back leg stretch. Hold for 10 to 20 seconds. Do the exercise 6 to 10 times.

3) Ice – Ice may also help decrease the inflammation that is causing your pain. It is recommended that you ice your knee for 15-20 minutes after strenuous activity. You may also take NSAID pain relievers such as ibuprofen, Tylenol, Naproxen, or Aspirin if your pain is persistent.

Do not take more than is directed on the bottle, and see your primary care doctor again if the pain is persistent.

It is important to note that this injury may take some time to recover and it is important to be consistent with you exercises and stretches

Sources

<http://www.aafp.org/afp/991101ap/991101b.html>