

Patellofemoral Pain Syndrome (Runner's Knee) Rehabilitation Exercises

You can do the hamstring stretch (exercise 1) right away. You can start doing exercise 2 as soon as it is not too painful to move your kneecap. When the pain in your knee has decreased, you can do the quadriceps stretch and start strengthening the thigh muscles using exercises 4 through 6.

1. Hamstring stretch: Stand with the heel of your injured leg resting on a stool that is about 15 inches high. Keep your knee straight. Gently lean forward from your hips, keeping your shoulders in line with your trunk, until you feel a stretch in the back of your thigh. Hold this position for 30 to 60 seconds. Return to the starting position. Do not round your shoulders and bring your head toward your toe. This will stretch your low back instead of your hamstrings. Repeat this exercise 3 times.



Hamstring stretch

2. Patellar mobility: Sit with your injured leg outstretched in front of you and the muscles on the top of your thigh relaxed. Take your index finger and thumb and gently press your kneecap down toward your foot. Hold this position for 10 seconds. Return to the starting position. Next, pull your kneecap up toward your waist and hold it for 10 seconds. Return to the starting position. Then, try to gently push your kneecap inward toward your other leg and hold for 10 seconds. Repeat these for approximately 5 minutes.

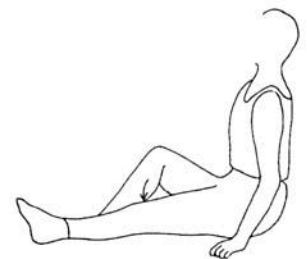


Patellar mobility



Quadriceps stretch

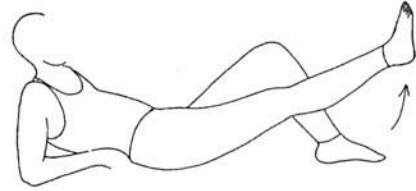
3. Quadriceps stretch: Stand an arm's length away from a wall, facing straight ahead. Brace yourself by keeping the hand on your uninjured side against the wall. With your other hand, grasp the ankle of the injured leg and pull your heel up toward your buttocks. Don't arch or twist your back. Hold this position for 30 seconds. Repeat 3 times.
4. Quadriceps set: Sit on the floor with your injured leg straight out in front of you. Try to tighten up the muscles at the top of your thigh by pushing the back of your knee down into the floor. Concentrate your contraction on the inside part of your thigh. It is very important to strengthen this part of your quadriceps muscle, called the vastus medialis, for your rehab to be successful. Hold this position for 5 seconds. Repeat 10 times. Do 3 sets of 10.



Quadriceps set

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5. Straight leg raise: Sit on the floor with your injured leg straight and the other leg bent so the foot is flat on the floor. Pull the toes of your injured leg toward you as far as you can comfortably while tightening the muscles on the top of your thigh. Raise your leg 6 to 8 inches off the floor. Hold this position for 3 to 5 seconds and then slowly lower your leg. Repeat 10 times. Do 3 sets of 10.



Straight leg raise

6. Weight lifting - leg extension: Do these if you have access to a weight lifting bench with a leg extension attachment. Sit on the bench with the weight attachment in front of your lower legs. Extend your knees by straightening your legs. Be sure your legs straighten completely. The last 15 degrees of extension are the most important. Use enough weight to cause fatigue but not pain. Do 3 sets of 10.