Patellofemoral Pain Syndrome

What causes patellofemoral pain?

The exact cause of patellofemoral pain is not known. Often, some muscles around the knee and hip are found to be weaker. This changes the way the kneecap (the patella) moves on the groove in the thigh bone (the femur), which may cause pain.

What can I do to control the pain in my knee and help it get better?

➢ Activities which put stress on the knee joint worsen patellofemoral pain. For this reason, sports which include jumping, running, and bending the knee completely (such as basketball, volleyball, squash, ballet) are not recommended.

➢ Try low-impact activities instead. Some examples of low-impact actitves include swimming, walking on a level surface, cross-country skiing.

➢ Put ice on your knee for 10 to 15 minutes after an activity that caused pain. A bag of frozen peas works well to surround the knee.

➢ Your doctor might have recommended a medicine like ibuprofen (brand names: Advil, Motrin and others). This can help reduce the inflammation in the knee.

➢ Doing the exercises and stretches illustrated in this handout will strengthen your thigh muscle and control the movement of your kneecap. This will help reduce the pain and stop it from re-occurring.

➢ Wearing proper supportive walking or running shoes can limit the pain in your knee.

➢ Be patient! The pain usually goes away with time. Patellofemoral pain can be hard to treat. It might take six weeks or even longer for your knee to get better. However, if pain persists longer than eight weeks, you may want to consult your physician to see if physiotherapy might work for you.

You'll be less likely to get this pain again if you stay in good shape, but don't make any sudden changes in your workouts.
All of these exercises can be done on your affected side and on your 'good' side. If you experience pain or discomfort while doing an exercise described on this handout, stop doing that exercise. If you find that doing an exercise 10 times is too easy, you can do 2 sets of 10, and if that is too easy, you can do 3 sets of 10 repetitions.

1. Quadriceps strengthening: Lie on your back or lean on your forearms as shown. Tighten your thigh muscle and straighten your leg. Hold your leg straight for 5 seconds and then relax. Repeat the exercise 10 to 15 times.

2. Quadriceps strengthening: Lie on your back or lean on your forearms as shown. Bend up one knee. Turn your other leg so that your toes are facing outward. Raise your affected leg straight up 8 to 10 inches. Keep your toes facing outwards. Hold it up for 5 seconds, then lower your leg to the floor slowly. Repeat the exercise 10 to 15 times.

Stretches:

1. Iliotibial band and buttock stretch (right side shown). Position yourself as shown. Twist your trunk to the right and use 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 30 seconds. Repeat this stretch 3 times.

2. Hamstring stretch: Position yourself as shown with your back against a wall. Push down with your knee so that you feel a stretch in back of your thigh. You can use your arms to "push" your leg straight and lean forward to help stretch as well. Hold the stretch for 30 seconds. Repeat this stretch 3 times.

3. Calf stretch. Position yourself against a wall as shown. Keep the heel of the back foot on the ground. You should feel the back leg stretch. Hold for 30 seconds. Repeat the stretch 3 times.