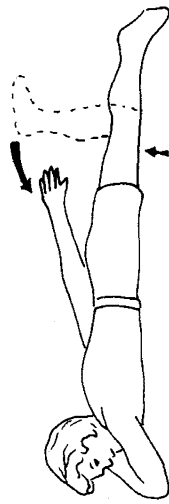


Patellofemoral Stretching Program

All stretches should be performed 10 times each with 10 seconds holds at least twice a day, and also before and after sports. Usually, the more the stretching is performed, the faster you will obtain relief of knee pain. It is also important to stretch when you first notice any discomfort. Doing quadriceps stretches (and the other exercises if so instructed) will often prevent increasing knee pain if done through the day.

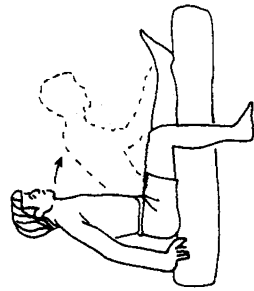


1. Quadriceps Stretch (preferably done lying on stomach)

- A. Lying on Stomach - Reach for your ankle and bend your knee, attempting to touch your heel to your buttock; hold. You should feel a pull on the front of the thigh. If possible, try to lift your knee without raising your hip. Alternate legs for this stretch.
- B. Standing - Balance by holding onto something and with the opposite hand bring your heel to your buttock and hold. Make sure your body is straight, the knee is hanging down straight and pushed back if possible, so a pull is felt on the front of the thigh.

2. Iliotibial Band (crossed leg) Stretch

Stand with your affected leg crossed behind the other. Bend at the waist with your fingertips toward the floor. Lean your hips toward the affected side until you feel a stretch down the side of the hip and thigh; hold.



3. Hamstring Stretch

Sit on edge of bed or couch with affected leg out straight and the other leg on the floor. Lean forward from the hips, keeping the back straight and chin up to stretch the back of the thigh. Keep the knee straight and the toes pointing upward so a pull is felt behind the knee; hold.

4. Heel Cord Stretch

Stand with hands on wall and affected leg behind the other, toes pointing toward wall and heels flat on the floor. Keeping the heels down, back and knees straight, lean the hips towards the wall until a pull is felt in the calf and hold.

ADDITIONAL INSTRUCTIONS:

If any medications have been prescribed, use as directed by your physician. If a brace is prescribed, use it for sports or any activities that normally cause knee pain. Ice helps to speed recovery by decreasing inflammation, so use an ice pack twice or more a day if your knee is swollen or painful, once a day if just achy.

ICE PACK

1. Combine: 1 gallon size, ziplock bag (double bag to prevent leaks)
3 cups of water
1 cup of rubbing alcohol
2. Freeze overnight - this will stay slushy
3. Wring a small handtowel out with water and use it to protect your skin from frostbite when you apply the ice pack.
4. Keep the ice pack on the affected area about 10 minutes, until it is numb and feels smooth and cold, no longer prickly.
5. Refreeze after use.
6. Repeat ice application as necessary. This ice pack may be used as directed for other painful or swollen joints or muscles too.

PRECAUTIONS:

1. The least painful position of the knee is usually comfortably straight with no muscles tensed. Avoid sitting with knees bent or crossed, especially for long periods or if feet are not touching the ground. Sit on an aisle or with your (car) seat pushed back enough to allow you to comfortably extend your legs.
2. Avoid squatting if possible. Lift from the ground by kneeling with the affected knee forward. Do things close to the ground (like gardening) with legs stretched out in front of you while you sit on the ground. Don't play baseball catcher.
3. Avoid weightlifting squats. Don't use any sitting knee extension machines. When your knees are painfree, if you continue weightlifting, have the weights supported so you never have to bend your knees to more than a right angle.

4. Avoid stairs or running until it is painless to do so. Climbing stairs, walking and bicycling are usually less bothersome if done at a brisk rather than slow pace (60 to 80 per minute is best). When your knees are painfree, try gradually resuming running by starting with a brisk walk-slow jog-brisk walk alternating progression until you can run or jog the whole time without pain.
5. Swimming and bicycling (on level surfaces) are usually the best exercise while your knees are recovering. Be sure to have your bicycle seat raised high enough that your leg is comfortably straight at the bottom of the pedaling cycle. Use resistance or higher gears only if you can do this without causing pain.
6. Once your knee feels better, it is still important to stretch before and after sports (this is true for any athlete). If you continue your stretches (especially quadriceps stretch) whenever your knees begin to bother you, you can probably prevent future knee pain.

Physical Therapy Department

Patellofemoral Stretching Program



KAISER PERMANENTE