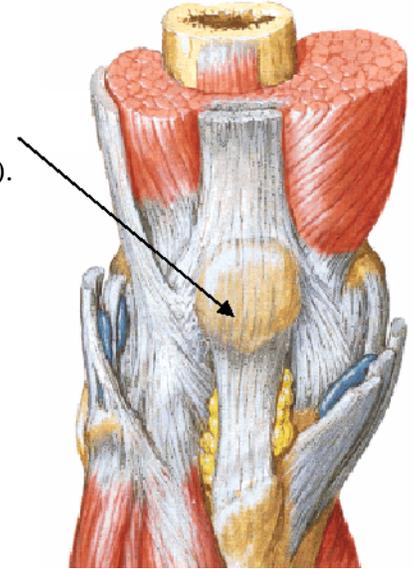


# PATELLOFEMORAL PAIN SYNDROME (KNEECAP PAIN – “RUNNER’S KNEE”)

## ◆ What is it?

- ◆ Patellofemoral pain syndrome (PFPS) is pain that occurs behind the patella (knee cap) and/or the soft tissue surrounding it. It occurs with overuse, excessive pressure on the patella (kneecap), or when the patella does not correctly track in the groove on the femur (thigh bone).



## ◆ Signs and Symptoms of this Condition

- Pain under, around, or on sides of patella
- Pain and stiffness under the patella after prolonged sitting. Pain with running, climbing stairs, deep knee bending, or squats
- Grating, grinding, cracking, popping, feeling under the patella with knee motion.

## ◆ Causes

- **Overuse** – too much, too often... running, high impact activities, excessive stairs.
- **Prolonged Pressure** – prolonged sitting with bent knees
- **Muscle Imbalance** – decreased flexibility and muscles weakness
- **Improper Footwear** – right shoe type for your arch and replacing shoes every 6 months

## ◆ What can I do to prevent this condition?

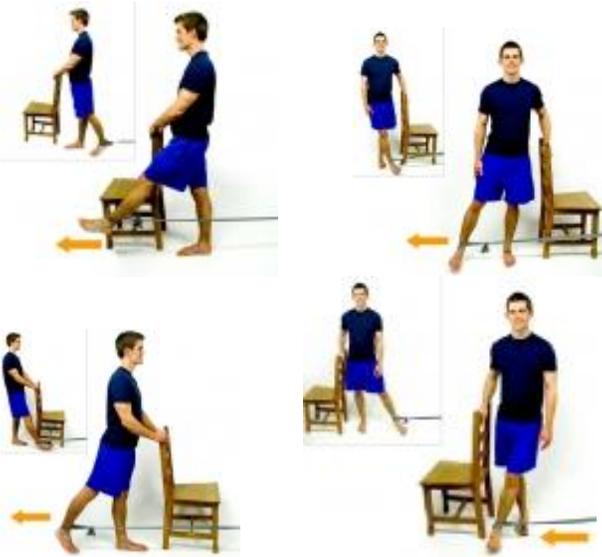
- Allow time for adequate rest and recovery between exercise sessions
- Ensure your exercise program includes strength, flexibility and cardio.
- Avoid the following activities: prolong sitting, deep squats, high impact
- Shoe Wear: replace your shoes often and get fitted for the right shoe

## ◆ Prognosis

Acute patellofemoral pain will normally resolve in 6-8 weeks given sufficient rest from aggravating activities and if a patient is compliant w/ home exercises. NSAIDs may assist during the initial stages of this condition. More chronic conditions may take 8-16 weeks to rehab due to muscles imbalances and the need for improved flexibility and strength in the lower extremities and core (abs, back and hip musculature).

## ◆ Treatment

- Replace your running shoe if older than 6 months
- Avoid deep squats and activities that reproduce symptoms.
- Start performing the exercises below and ensure good compliance to receive maximal benefits
- You may use an ice pack x 15-20 minutes to assist with pain and inflammation
- Your health care provider may prescribe Non-Steroidal Anti-Inflammatory Drugs (NSAIDS)



## STEAMBOATS

Loop two ends of theraband together and knot them. Place knot under door and slide loop end through to other side. Shut the door securing the theraband. Stand on the involved leg. Place theraband loop around non-involved leg.

With motion coming from hip (KNEE REMAINS STRAIGHT) quickly pulse the leg back and forth. Complete each direction for 30 seconds. You should feel that the stance leg gets fatigued more so than the moving leg. Try to progress in increments of 10 seconds up to 1 minute in each direction.

Complete all 4 directions 1x/day.

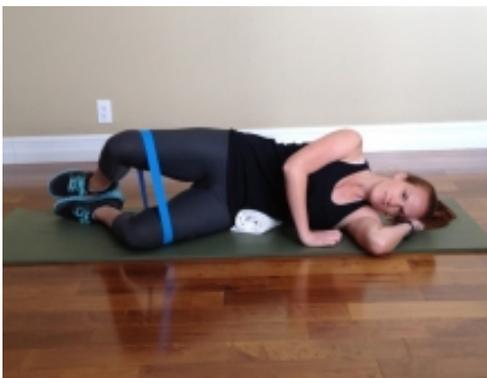


## WALL SQUATS/MINI SQUATS

Stand with your back against the wall or door (smooth surface) Walk feet in front of you approximately 12 inches and shoulder width apart.

Slide down the wall until you reach the onset of your pain or your knees are at 90 deg (buttock should not go lower than knees). Hold for 5-10 seconds then push back up the wall. Make sure knees do not go beyond your toes. Knees should also track through your second toe. Do not let the knees collapse inward.

Complete 3 sets of 10 repetitions 1x/day



## CLAMSHELLS WITH BAND

While lying on your side with your knees bent, place a band 2 inches above your knees. Slowly externally rotate your hip or open up your knees like a clam (picture showing end position of exercise). Slowly lower your upper leg to return to the closed position. Perform 15 reps x 3 sets; three times a week.

\*\*This exercise helps with stabilizing the hip in a single leg position.



## HAMSTRING STRETCH – QUAD STRETCH

For hamstring stretch, make sure you uninvolved leg is completely flat on the ground. Use a belt or towel to lift your other leg into the air until you feel a stretch. Hold each stretch for 30 sec and repeat 3 times; twice a day.

Quadricep Stretch: Pull your leg back to your buttocks. Make sure you leg is in line with your body. For an extra stretch, squeeze your buttock and push your hip forward. Hold 30 seconds x 3 reps; twice a day.