

## Patellofemoral Pain (PFP)

Pain caused by the patella (kneecap) rubbing on the femur (thigh bone). Often associated with pain at rest, running, and going downstairs.

The function of the joint between your patella and femur (patellafemoral joint) is to increase efficiency of the knee when it is straight or straightening. It is susceptible to overuse and wear and tear. A thorough assessment is required to determine exactly what structures are at fault and the severity of the injury. Typically, it is caused from imbalances between soft tissues that support the joint (ie: tight versus weak structures) and in chronic cases there may be changes to the bone structures.

### TREATMENT:

Treatment is aimed at reducing the pain and inflammation present and restoring balance through the patellafemoral joint and its structures. In order for treatment to be successful, the patella must be aligned in its groove and travel properly through the groove during movements. This often requires manual therapy, stretching and strengthening. In standing/walking, the knee is directly affected by foot positioning, therefore, there may be postural and footwear considerations.

A Physical Therapist can directly assist with decreasing inflammation and pain, aligning and mobilizing the patella, providing the appropriate stretches and strengthening exercise to restore balance. Attached are some basic stretching and strengthening exercises that emphasize balance in this joint.

**Notes:**

**1- Stretching hamstring** - Repetition:3 / Hold:30



Lie on your back, grab the back of your leg and pull your knee toward your chest. Gently straighten your leg while keeping your thigh straight until you feel a comfortable stretch behind the leg. Maintain the position and relax. Hold for the recommended time.

**2- Stretching quadriceps** - Repetition:3 / Hold:30



Stand in front of a chair and hold on to it with one hand. Grab the top of one ankle with one hand and pull your foot towards your buttock until you feel a gentle stretch in front of the thigh. Hold the stretch, keeping your lower back neutral and return to the initial position.

**3- Stretching quad./BIT** - Repetition:3 / Hold:30



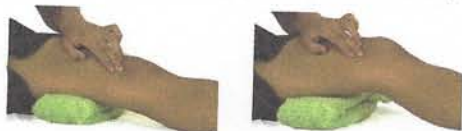
Lie on your side and grab your top ankle with one hand to pull your foot towards your buttock, keeping your lower back neutral. Place your bottom foot on the knee of the top leg, pulling your knee down until you feel a gentle stretch on the lateral side and the front of the elevated leg. Hold the stretch and return to the initial position.

**4- Stretching glutes** - Repetition:3 / Hold:30



Lie on your back with your knees bent, place one foot (affected side) over the opposite knee. Grab behind the leg that is on the ground with your hands and pull it toward you until you feel a gentle stretch. Maintain the position and relax. Push on your knee to increase the stretch. As an alternative, lie in front of a wall and use the wall to push your foot if you have trouble reaching the back of your leg.

**5- Isometric vastus medialis** - Sets:2 / Repetition:10 / Hold:10



Sit with a rolled towel under your knee. Activate the inside of your thigh and press your knee against the roll without activating the outside of your thigh. Hold the contraction and relax.