

Guide to Patello-Femoral Rehabilitation

Welcome to our Patello-Femoral Rehab video. The goal of this video is to minimize pain around the kneecap and maximize recovery. *These videos should not be used as a substitute for regular physical therapy visits and guidance from your physician.*

Patello-femoral pain is very common and occurs throughout all age groups. This program is designed for both:

1. **Patello-Femoral Syndrome**, which comprises Runner's Knee and Adolescent Anterior Knee Pain
2. **Patellar Instability**, which comprises patellar dislocation or subluxation (temporary, partial dislocation of the kneecap from its normal position in the groove in the end of the femur)

Please remember the following:

- Perform all exercises on both legs, as this will help prevent imbalance between the rehab and non-rehab knee.
- Utilize pain-relief modalities throughout this program to help limit discomfort and progress with the exercises. These include: anti-inflammatory medications [NSAIDs], topical NSAIDs or analgesic ointments, moist heat prior to exercise to loosen up stiffness, icing for 5-10 minutes after exercise to limit inflammation, and/or knee compression sleeves
- Avoid early biking, deep squats/lunges and exercises on a knee extension machine during rehabilitation, as they may aggravate inflammation and pain
- Equipment needed to perform these rehab exercises includes a jump mat or yoga mat and light dumbbells as you progress with strengthening. A stopwatch or timer can be used for some exercises.
- If you develop any questions or concerns regarding your condition while using this video, contact your physician.

Best of luck in your recovery.

STRETCHING

GOALS: Relieve excessive tension and pressure in the patello-femoral joint; allow for normal joint mechanics

KEY POINTS:

- Allow pain to guide intensity of exercises; reduce intensity of exercises if they are too painful
- Conduct stretching exercises 3 times daily; hold the stretch for 30 seconds then relax for 15 seconds and repeat; do 5 repetitions of each exercise

- Keep hips and thighs flat on floor during prone quad stretch; keep knees together during standing quad stretch

EXERCISES:

1. PRONE QUADRICEPS STRETCH
2. STANDING QUADRICEPS STRETCH
3. STANDING HAMSTRING STRETCH
4. STANDING HIP / IT BAND STRETCH
5. CALF STRETCH
6. PATELLAR MOBILIZATIONS

See video at <http://www.matthewboesmd.com/patello-femoral-rehabilitation/> to view the exercises.

STRENGTHENING

GOALS: Improve stability and function of the patello-femoral joint; decrease irritation and pain

KEY POINTS:

- Do not progress to strengthening exercises until knee is pain-free during stretching and most daily activities
- Conduct strengthening exercises once daily: 1-2 sets of 12-15 repetitions each exercise
- Ankle weights can be added to increase resistance
- Hold isometrics [wall squat] for 5 seconds
- Begin gentle cycling or exercise bike in this phase (if knee is pain-free)
- Continue twice daily STRETCHING
- Perform exercises on both sides

EXERCISES:

1. QUAD SETS
2. STRAIGHT LEG RAISE – LEG IN EXTERNAL ROTATION
3. HIP ABDUCTION
4. HIP ADDUCTION
5. HAMSTRING STRENGTHENING
6. LEG PRESS 0-90 DEGREES
7. DUMBBELL SQUATS
8. WALL SQUATS
9. CALF RAISES
10. LATERAL STEP UPS

See video at <http://www.matthewboesmd.com/patello-femoral-rehabilitation/> to view the exercises.

PLYOMETRICS

GOALS: Improve strength, muscle coordination, balance and stability

KEY POINTS:

- Plyometric exercises are done in later stages of rehab to help improve muscle coordination; avoid these exercises if they are too intense or if they cause pain
- Proper landing technique is important – land with knees over feet and knees flexed to cushion landing
- Land and hold single leg jumps for 2-3 seconds to improve balance

EXERCISES:

1. CONTINUE STRENGTHENING EXERCISES
2. IN/IN, OUT/OUT'S
3. POWER JUMPS – FRONT AND BACK
4. SINGLE LEG LAND AND BALANCE

See video at <http://www.matthewboesmd.com/patello-femoral-rehabilitation/> to view the exercises.

For more information, visit www.MatthewBoesMD.com