# Patellar Tendinopathy Exercises



The following exercises are designed for the self-treatment of patellar tendon issues. While the focus on the patellar tendon, you should also rehabilitate the remainder of the lower extremity, since many other parts of your lower limb contribute to the problem. Stretching the hip flexors, quadriceps (quads), hamstrings, and calves can be helpful in addition to these exercises. Upper hip and thigh strengthening can also help.

## Eccentric strengthening exercise on a 25° decline

## **BASIC EXERCISE**

- This exercise is done standing on a 25° decline. This can be done on a 25° decline board, a downhill slope, or a treadmill angled to a 25-30° incline and facing downhill.
- Initially, begin by slowly squatting with most of your weight on the exercising knee to a 60-70° knee bend. Then slowly return to a standing position using both knees. Do this for 15 repetitions, twice a day.
- Perform the exercise to a pain intensity level up to 6/10; if the pain exceeds 8/10, you will need to decrease the load or speed at which you do the exercise.





## **VARIATIONS**

- Once this becomes easier, progress the single-leg squat to a 90° knee bend.
- When this becomes easier after the first couple of weeks, increase the load by wearing weights in a backpack or weighted vest, and then try to perform the movement at little faster.
- If both of your knees are affected, you can use your arms and both legs to return to the starting position.



## **BALANCE EXERCISES**

## Single-leg balance

### **BASIC EXERCISE**

- Stand and try to balance on the exercising leg without any support (keep a chair next to the non-exercising leg to use for balance as needed).
- Hold this position for 30 seconds, then relax and take a deep breath. This is one repetition.
- Do 2 sets of 3 repetitions for each leg, a day.

### **VARIATIONS**

- Once the exercise becomes easier to do with the exercising foot flat on the floor, try lifting the heel slightly off the floor.
- Do this exercise with your eyes open at first. As it gets easier, try the exercise with your eyes closed.
- Once that gets easier, do this exercise while standing on a folded towel or pillow.

## Dynamic single-leg balance

## **BASIC EXERCISE**

- This is very similar to the single-leg balance exercise above, except while balancing on one leg, reach in front of you with the arm on the same side as the exercising leg and allow the exercising knee to bend.
- Balance, reach out, hold for 5 seconds, then slowly return to the starting position, relax and take a deep breath. This is one repetition.
- Do 2 sets of 10 repetitions for each leg, a day.

### **VARIATIONS**

• Once this becomes easier, try reaching across your body for the chair next to your non-exercising leg.

## **Hopping / Jumping**

## **BASIC EXERCISE**

- Once you can do the above exercises without much of a problem, try hopping (initially on both legs, then later only on one leg) across the room and back. Then repeat the exercise using the other leg. This is one repetition.
- Do 2 sets of 3 repetitions for each leg, a day.

## **WARNINGS**

- Make sure that the path you are taking is free of obstacles or loose carpeting or rugs.
- Make sure that you land softly, bending at both the ankle and knee.
- Avoid landing hard onto your feet and heels.

## **VARIATIONS**

• Once the exercise becomes easier, perform the exercise jumping as high as you can each time you move forward, as opposed to just hopping.







## Ballistic Jump-Squats (ONLY after cleared by provider to start this)

- Do this on a flat surface.
- Jump up in the air with both legs, and land as softly as you can, while bending both knees into a partial squat to a 60-70° knee bend.
- Then slowly return to a standing position using both knees.
- Do this for 15 repetitions, twice a day.



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