

Isometric Exercises for Patellar Tendinopathy

This handout gives step-by-step instructions to follow for isometric exercises to help ease pain caused by patellar tendinopathy.

What is patellar tendinopathy?

Patellar tendinopathy is an injury to the tendon that connects your kneecap (*patella*) to your shinbone (*tibia*). The injury causes inflammation and pain on the front of your knee. It is also called *patellar tendonitis* or “jumper’s knee.”

Anyone can get patellar tendinopathy. But it occurs most often in people who play sports that require a lot of jumping, such as volleyball and basketball.



The patellar tendon connects the kneecap to the shinbone. Retinacula tendons also help hold the kneecap in place.

What are isometric exercises?

Isometric exercises help strengthen muscles. But instead of moving the muscle, you simply tense (*contract*) the muscle and then release. For instance, instead of moving a weight up and down or back and forth, you hold it in one spot.

Many people with patellar tendon pain have felt relief right away when doing isometric exercises.

How do I do the exercises?

For each exercise in this handout:

- Hold the muscle tension for 45 seconds.
- Repeat 5 times. (Each of these is called a “rep.”)
- Rest for up to 2 minutes in between reps when doing exercises that cause knee pain.

Which exercises should I do?

Do the exercises that feel challenging but do **not** increase your knee pain during or after you do them. Closely watch how your body feels for 24 hours after doing an exercise. How it feels will tell you how your knee is responding to the exercise you did the day before. Your pain should lessen day by day. If your pain gets worse, stop doing the exercise that caused pain.

Exercises

Quad Set, Seated

- Sit upright on the floor. Extend your injured leg out in front of you. Keep the other knee bent.
- On your injured leg, lift your heel up and push your knee toward the floor.
- Hold for 45 seconds, then relax for up to 2 minutes.
- Repeat 5 times.



Bug Squash

- Lie on your back near a wall. Bend your knee. Position yourself so that your toes are against the wall.
- Lift your injured leg and place your foot flat against the wall. Bend your injured knee 60 to 90 degrees. Push into the wall as if you were squashing a bug.
- Hold for 45 seconds, then relax for up to 2 minutes.
- Repeat 5 times.



Wall Squats, Double Leg

- Stand with your back to a wall, with your feet slightly more than shoulder-width apart.
- Lean back against the wall. Bend your knees 60 to 90 degrees and rise up onto your toes.
- Make sure your knees are **not** bent past your toes. Keep your back flat against the wall.
- Hold this position for 45 seconds, then relax for up to 2 minutes.
- Repeat 5 times.



Wall Squats, Single Leg

- Stand with your back to a wall, with your feet slightly more than shoulder-width apart.
- Lift your healthy leg off the ground. Lean back into the wall. Bend your injured knee 60 to 90 degrees and rise up on your toes.
- Make sure your knee is **not** bent past your toes. Keep your back flat against the wall.
- Hold this position for 45 seconds, then relax for up to 2 minutes.
- Repeat 5 times.



Decline Squat

You will need a decline board, plate weight, or other sturdy support for this exercise.

- Stand with your heels on a support. It should feel like you are doing heel raises in a supported position.
- Slowly bend at your knees and lower into a squat position. Hold your arms out in front of you to help you stay in balance.
- Make sure to keep your toes pointing forward and your heels on the support. Do **not** let your knees bend forward past your toes or bend inward.
- Hold this position for 45 seconds, then relax for up to 2 minutes.
- Repeat 5 times.



Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UW Medicine Sports Medicine Clinic: 206.598.DAWG (3294) and press 2 during clinic hours:

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