HOW TO AVOID & TREAT RUNNER’S KNEE

BY STEPHAN PILL, MD, MSPT
Running is a highly beneficial form of cardiovascular exercise, but if it’s your only form of exercise, weakness of the knees and hips can lead to overuse injuries. Without strengthening and cross-training to complement the running, major muscle groups can get irritated and performance can dwindle.

The dreaded “runner’s knee” has many other names, including chondromalacia patella, anterior knee pain, and patellofemoral pain syndrome, but most often shows up as pain in the front of the knee. A common mistake for runners trying to enhance performance is to simply run harder and faster. If done in unbalanced fashion, the body’s muscles can get weak, increasing the risk of runner’s knee or other overuse injuries.

Some simple cross-training exercises can be added to your running workout to avoid and treat runner’s knee and other common running injuries. These exercises can be added to the daily workout or done on in-between days without much additional effort. Here are some of my favorites.

Do strengthening exercise 3x per week to start; 5x per week is permissible once leg strength can support that frequency. Perform 3 sets, the number of reps may vary based on your fitness level. Keep going until the legs feel fatigued, taking a short break in-between each set.

By working on just a few safe exercises, runners can strengthen their weaker major muscle groups in a shorter amount of time. Too many runners either ignore strengthening or spend too much time doing endless strengthening on expensive machines. A simple short list of a few exercises is typically all that is needed to improve and stay healthy.
Modified lunges – to help with quadriceps strength and balance

- Take a large step forward so that the knee stays above the ankle when lunging (avoid a small step, which can lead to strain on the kneecap and more injury)
- Return to the standing position; repeat on the other side.
- You can also raise to your toes just prior to lunging forward to further enhance balance and improve calf strength.
- Perform the lunges slowly and with control.
- Instead of staying in place, you can lunge reciprocally the length of a hallway and back, or 15-30 side steps per side.

Wall Squat – for quadriceps strength

- Lean against a wall or therapy ball. Lower into a squat keeping the knees centered over the ankles so your knees approach a 90-degree angle, hold, then return to standing.
- You can start with a smaller arc of motion until you have developed sufficient strength to squat deeper.
**Straight Leg Raises (Figure 3) – for hip strength and knee injury prevention**

- Lie on one side with toes facing forward and lift the leg, as the other leg remains on the floor. The range of motion should be comfortable.
- Maintain a strong contraction in the quadriceps by locking the knee in extension to further strengthen the knee.

![Straight Leg Raises](image)

**Side Shuffle (Figure 4) – for hip strength and knee injury prevention**

- For more advanced strengthening or as a continuation of straight leg raises, tie a resistance band in a circle and place it around the ankles.
- With slight knee bend, walk with 'sidesteps', being careful to take equal, smooth steps without the band snapping the legs together.
- You can walk the length of a hallway and back, or 15-30 steps per side.

![Side Shuffle](image)

*Stephan Pill, MD, MSPT specializes in hip and knee, shoulder and elbow and sports medicine in the Kernersville location of OrthoCarolina Winston.*