



## Your guide to three key exercises for reducing knee pain

Many adults in the United States and around the world suffer from long-lasting knee pain. This pain is a problem because it limits your mobility and can even make it difficult for you to stand up or sit down.

A significant contributing factor to knee pain is weak and stiff muscles in your legs. These muscles control your hips and knees. To do this, they must remain strong and flexible. When they're not, your knees and hips can begin to

suffer from strain and added pressure that cause pain and limit your mobility.

Since weak and stiff muscles contribute to knee pain, it's important that you exercise to help build up their strength and flexibility. The challenge with this is finding exercises that are gentle on your joints but effective enough to produce results. In this guide, we'll go over three exercises that are gentle on your body but effective in improving your strength and flexibility.

### #1 Hip bridge raises

**Hip bridge raises are a simple exercise that targets the gluteal muscles.** The glutes are connected to the movement of your knees. When they're stronger and more flexible, they provide more stability and a greater range of motion for the knees (and the hips).



Hip bridge raises can be done almost anywhere on a flat surface, so they're great to do from the comfort of your own home. Here are the steps to follow to do hip bridge raises:



**1. Lie with knees bent and both feet placed on the floor with arms crossed over your chest.**

Your back and feet should be flat against the ground. Keep your body as straight and even as possible.

**2. Raise your hips off the surface by squeezing your gluteal muscles.**

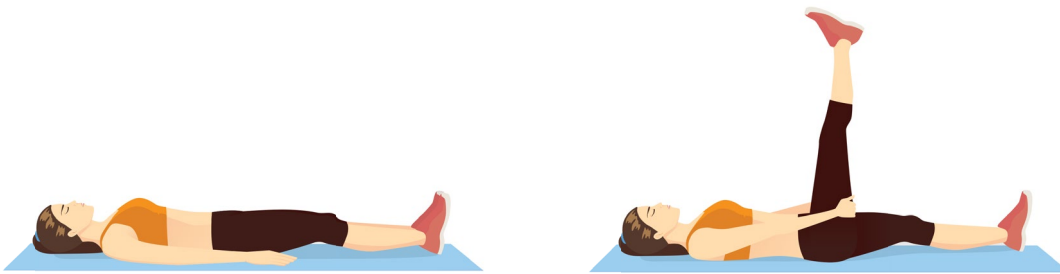
Drive your hips upward, focusing the effort of your movement with your gluteal muscles. You should feel as though you are squeezing or tightening the gluteal muscles.

**3. Attempt to bring the hips up to where they are in line between the knees and shoulders.**

The goal is to create a straight incline from your knees to your shoulders. If it causes too much pressure to raise your hips this high, then stop where it's comfortable. With time, you may be able to push yourself further as your muscles grow stronger.

**4. Repeat 10 to 15 times a few times per day for two to three days per week.**

This exercise takes very little time out of your schedule. You can do it at home before work and again when you get home a couple of days per week. After committing some time to this exercise, you should begin to notice a difference in the way your knees feel.



## #2 Doorway hamstring stretch

**The hamstrings are a group of large muscles on the back of each thigh.** Their primary responsibility is to flex the knee. Tightness and stiffness in the hamstrings make it more painful when trying to bend your knee and can keep you from bending over to reach objects on the ground.

The doorway hamstring stretch is a simple stretch you can do every day in the comfort of your home. All you need is a doorway. Here are the steps to follow to do doorway hamstring stretches:

**1. Lie on your back in an open doorway.**

Position yourself to where one leg is going through the doorway and the other is bent and touching the wall with your toes. Keep your back and your other leg in the doorway flat against the ground throughout the duration of the stretch.

**2. Slide your leg up wall.**

Slide the foot of your leg that's against the wall up the wall slowly. Try to straighten your leg as much as possible. As you slide your foot up the wall, you'll switch to pressing your heel against the wall instead of your toes as your leg gets more straight.

**3. Hold for at least one minute.**

When you have your leg as straight as you're comfortable holding it, stay in this position for at least one minute. If you want to hold the stretch for longer, you can stay in position for up to six minutes if you'd like. Once finished, slowly lower your leg back to the ground. Switch legs and repeat the stretch with your other leg. Do this stretch two or three times for each leg.

## #3 Squats

Your hamstrings, quadriceps and gluteal muscles in your thighs are all connected to the movement of your knees. Strengthening these muscles helps you maintain strength and flexibility in the knees.

The squat is a simple exercise you can do at home two or three times a week to engage these muscles, as well as your core. Here are the steps to follow to do squats:

### 1. Stand with your feet apart and parallel to each other.

You'll want to position your feet far enough apart to where you can squat downward comfortably without losing balance. If keeping your feet forward feels unnatural, feel free to let the toes shift outward a little bit until you feel like you can maintain balance well.

### 2. Keep your back straight and hold your arms out in front of you.

Holding your arms straight out in front of you helps keep your chest up and your spine straight throughout the exercise. It also helps you maintain your balance.

### 3. Squeeze your abs and squat down

As you begin to squat, you should squeeze your abs and begin your movement at the hips. As your hips bend, you'll want to drive your knees forward and your bottom backward. Your knees should naturally spread outward as you lower. Your body weight should drive mostly into your heels if you're doing this correctly.

### 4. Try to get your hips below your knees.

The goal of a good squat is to lower your hips below your knee level. If this is too far for you, don't worry about it. Go as far as you can before raising back up. As you practice this exercise more frequently, you'll improve your ability to lower yourself farther down.



### 5. Raise yourself back up.

Once you've reached your low point in the squat, you'll raise yourself back up to a standing position. When you do this, focus on driving your knees outward and squeezing your glutes to engage these muscles.

### 6. Repeat.

Do 10 to 20 squats per day depending on your comfort level.



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