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## Knee & Leg Exercise Program

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**Patient Information Series**

## Get Stronger, Move Better

Three types of exercise can help most people with arthritis:

- **Strengthening exercises**, which build muscle around your joint
- **Flexibility exercises**, or stretches
- **Aerobic activity**, also known as cardiovascular (or “cardio”), since it gives your heart a workout

For the best results, we recommend doing all 3 types of exercise on a regular basis.

If you haven’t been exercising much, this is a great way to start. If you’re already active, you can add these moves to your weekly mix.

### Before You Get Started

- Start slowly, and do more a little bit at a time.
- Always warm up and cool down for any kind of exercise.
- Make a weekly plan and track your progress.

### Recommended Starting Schedule

Exercise	Time/Session	Days/Week
Strengthening	5 to 20 minutes	3
Flexibility	5 minutes	7
Aerobic	<b>Beginner:</b> 10 to 15 minutes <b>Advanced:</b> 30 to 60 minutes	3 to start; increasing frequency as you get stronger

### Strengthening Exercises

**How often: 3 days per week.**

(Weights can be used up to 3 days per week, but always skip at least 1 day in between to give the worked muscles time to recover and rebuild. It helps build muscle while avoiding injury.)

Muscles do more than help you move. They also help cushion your knees and hips. They’re the “shock absorbers” that soften the impact from walking, jumping, standing, and falling. Weak muscles don’t offer much protection.

Strengthening exercises build up those muscle cushions and help prevent this problem.

## Modified Squat

This exercise works your upper leg and buttock muscles. That can help cushion and relieve pain in you joints. It also promotes good balance and posture.



### Starting position.

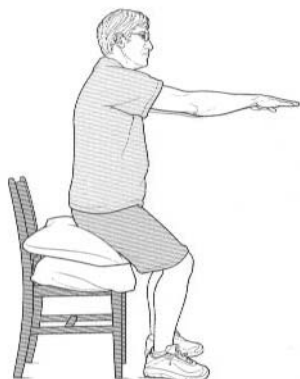
Place firm pillows or a folded blanket on a sturdy chair. Stand in front of it with your feet a little more than shoulder-width apart.

- Hold your arms straight out in front of you. (To make it easier, cross your arms as shown, or let them hang at your sides. You can hold onto the chair, if needed.)
- To a count of 4, slowly bend your knees until you're sitting. Keep your weight in you heels as you bend.
- To a count of 4, slowly stand up, keeping your back as straight as possible.
- Do 12 times. Rest a minute, and do 12 more.

### When you're ready to do more.

Try to do some or all movements this way:

- If you haven't before, hold your arms out straight.
- Do the exercise without a pillow or blanket on the chair.
- Don't sit down. Just lower yourself until you barely touch the seat. Then, stand up without pausing.



## Wall Squat

You should feel this exercise mostly in the front of your thighs.

Stand with your head, back, and hips against a wall. Step your feet out about 12-18 inches from the wall, hip-width apart. Have your feet rotated outward as opposed to facing straight ahead. Slowly slide down the wall until you are almost in a sitting position. Hold for 5 to 10 seconds, then slowly slide up. Repeat.

Keep your abdominal muscles tight.  
Hold the position longer as you get stronger.

Do not slide your hips down lower than your knees.  
Do not let your knees move forward over your toes.



# Flexibility Exercises

## How often: Every Day

Stretching may seem less important than strengthening or aerobic exercise. But it's not. When your joints stiffen, simple tasks like walking, bending, and reaching can be harder. Stretching helps keep your joints flexible. It can ease tension and stress in your body, improve your posture, relieve muscle cramps and soreness, and even lower your risk for low-back pain.

**Warm up first.** Stretching "cold" muscles can cause injury. Try walking in place and pumping your arms for at least 3 minutes.

**Watch your form.** Follow directions about how to position your whole body - not just the part you're stretching.

**Stretch slowly and smoothly.** Never bounce. For best results, reach just beyond your normal comfort level, but not until you feel pain.

**Breathe.** Follow your movements with slow inhales and exhales. Don't hold your breath when you hold your stretch.

## Quadriceps Stretch

Hold onto a wall or the back of a chair for balance. Lift one foot and bring your heel up toward your buttocks. Grasp your ankle with your hand and pull your heel closer to your body. Hold the stretch for 30 seconds.

Keep your knees close together. Stop bringing your heel closer when you feel the stretch. Do not arch or twist your back.

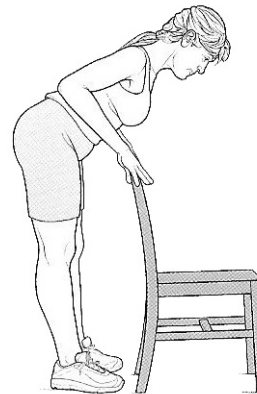


## Hamstring Stretch

This exercise stretches the muscles in the back of your upper and lower leg. Keeping them flexible can help your knees and hips move well.

### Starting position.

Stand while holding the back of a study chair.



- Slowly bend forward at the hips. Keep your back straight (not rounded) Don't lock your knees.
- Rest your palms on the seat. If you can stretch farther, bend your elbows or rest your forearms on the seat.
- Hold and breathe while slowly counting to 20 or 30.
- Slowly straighten back to standing. Repeat.

