



TIPS and EXERCISES for
**your knee stiffness
and pain**

KNEE EXERCISES

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Pain and swelling in your knee can often lead to loss of strength and motion. The tips and exercises listed in this booklet will help lessen your pain and swelling, increase your range of motion, improve strength, and return you to your normal activities. Please read the instructions carefully and follow the advice of your physical therapist or doctor when starting or progressing an exercise program. If your symptoms get worse while doing these exercises, please read the instructions again to be sure you are doing the exercises exactly as described. If your symptoms continue to worsen, talk to your health care provider.

TIPS TO LESSEN YOUR PAIN AND SWELLING

Rest. Avoid painful activities to give your knee time to heal. Limit your walking and other standing activities when your knee is painful or swollen. Use a cane or crutches to lessen the stress on your knee. It is best to use the cane on the opposite side of your painful knee. Use supportive shoes when you are standing or walking.

Icing and elevation. Use a cold pack on your knee for 15 to 20 minutes. Place a thin towel between your skin and the cold pack to prevent a rash or burn. Continue to ice 2 to 4 times per day as long as your knee is warm, painful, or swollen. Elevate your knee above the level of your heart whenever possible.

Compression. Use a knee brace or wrap to lessen the pain and swelling and provide support to your knee. When using a wrap, wrap loosely from your calf to just above your knee. You should be able to easily put two fingers under the wrap.

KNEE EXERCISES

Equipment needed: Chair; exercise band _____ (color); light ankle weight, _____ (lbs.); towel(s)

Range of motion exercise

It is important to begin moving your knee and ankle to prevent stiffness, lessen swelling, and increase circulation.

- Ankle pumps:** Move your foot up and down and from side to side.

FREQUENCY _____



Knee bending exercises

Below are a variety of exercises to help you bend your knee.

- Heel slides:** In a sitting or lying position, bend your knee as far as possible by sliding your heel up towards your torso. You can use a towel or belt behind your knee to help.

FREQUENCY _____



- Seated knee bending:** Bend your affected knee as far as you can. Help bend your knee further by pulling back with your other leg as tolerated.

FREQUENCY _____



- Seated chair slides:** Bend your affected knee as far as you can. Slide forward in the chair to increase the stretch as tolerated.

FREQUENCY _____



- Knee bending on stomach:**

Lie on your stomach. Bend your knee as far as you can tolerate.

FREQUENCY _____



To increase the stretch:

- A. Use a strap around your ankle and pull.

FREQUENCY _____



- B. Use your other leg to pull.

FREQUENCY _____



Knee straightening exercises

Do the following two exercises only if you cannot straighten your knee completely.

- Knee straightening in lying or sitting position:** A. Place a large towel roll under your ankle so that your calf clears the bed. Allow your knee to straighten. B. Place a light weight above the knee to increase the stretch. FREQUENCY _____



A.



B.

- Knee straightening on stomach:** Lie on the bed with a towel roll under your thigh and your feet off the edge of your bed. FREQUENCY _____



To increase the stretch:

- A. Wrap a light weight around your ankle. FREQUENCY _____



- B. Use your opposite leg to push gently. FREQUENCY _____



STRENGTHENING EXERCISES

Start strengthening exercises as soon as possible to help you return to your normal activities.

- ❑ **Quadriceps set:** Place a small towel roll under your knee. Straighten your knee by tightening your thigh muscles. Press the back of your knee into the floor or towel and hold for 5 to 10 seconds. This may also be done sitting. FREQUENCY _____



- ❑ **Gluteal set:** Lie on your back with a towel roll under the affected knee. Tighten your buttock muscles and hold for 5 to 10 seconds. FREQUENCY _____



- ❑ **Hamstring sets:** Lying on your back with your affected leg in a slightly bent position, dig your heel into the bed. Tighten the muscles in the back of your thigh and buttock region at the same time. Hold for 5 to 10 seconds. You can also do this exercise in a sitting position by digging your heel into the floor. FREQUENCY _____



- ❑ **Short arc knee straightening:** Lie on your back with a large towel roll under your knee. Tighten your thigh muscles and lift your heel off the ground. Keep your knee on the towel roll as you hold your leg as straight as possible for 5 seconds.

FREQUENCY _____



- ❑ **Straight leg raising:** You can perform this exercise lying, sitting, or standing.

Lying: Lie on your back with your affected leg straight and your other leg bent. Tighten your thigh muscles then lift your leg no higher than the other knee without allowing your knee to bend. Keep your thigh muscles tight while you lower your leg.

FREQUENCY _____



Sitting: In a sitting position, lift your leg no higher than your other knee.

FREQUENCY _____



- ❑ **Standing:** In a standing position, make sure to hold onto a chair for balance. Lift your affected leg 6 to 12 inches off of the ground.

FREQUENCY _____



- ❑ **Bridging:** Lie on your back with your knees bent and your feet flat on the floor. Gently tighten your stomach and buttock muscles. Lift your hips 3 to 5 inches from the floor without arching your back. Hold bridge for 5 to 10 seconds, and then slowly lower your hips to the floor.

FREQUENCY _____



- ❑ **Basic clam:** Lie on your side with both knees bent and positioned in front of you. Gently tighten your abdominal muscles to protect your back. Slowly raise your top knee up and outward like a clam opening while keeping your feet together. Keep your buttock muscles tight throughout the exercise. Hold for 5 seconds then slowly lower your knee back to the starting position. Do not roll your body or pelvis backward.

FREQUENCY _____



- ❑ **Sitting knee straightening:** Start with both knees bent. Slowly straighten your affected knee as far as you can. Hold for 5 seconds then slowly lower your foot to the ground. You can add ankle weights to make the exercise more difficult.

FREQUENCY _____



- ❑ **Sitting knee bending:** Wrap one end of the elastic band around your ankle and the other end around something sturdy like a table leg. Bend your knee against the resistance of the band. To increase resistance, move your chair further away from the table.

FREQUENCY _____



- ❑ **Mini squat using a chair:** Hold onto the back of the chair with your feet shoulder width apart. Slowly bend your knees and squat. Keep knees over feet. Hold for 5 to 10 seconds then return to starting position.

FREQUENCY _____



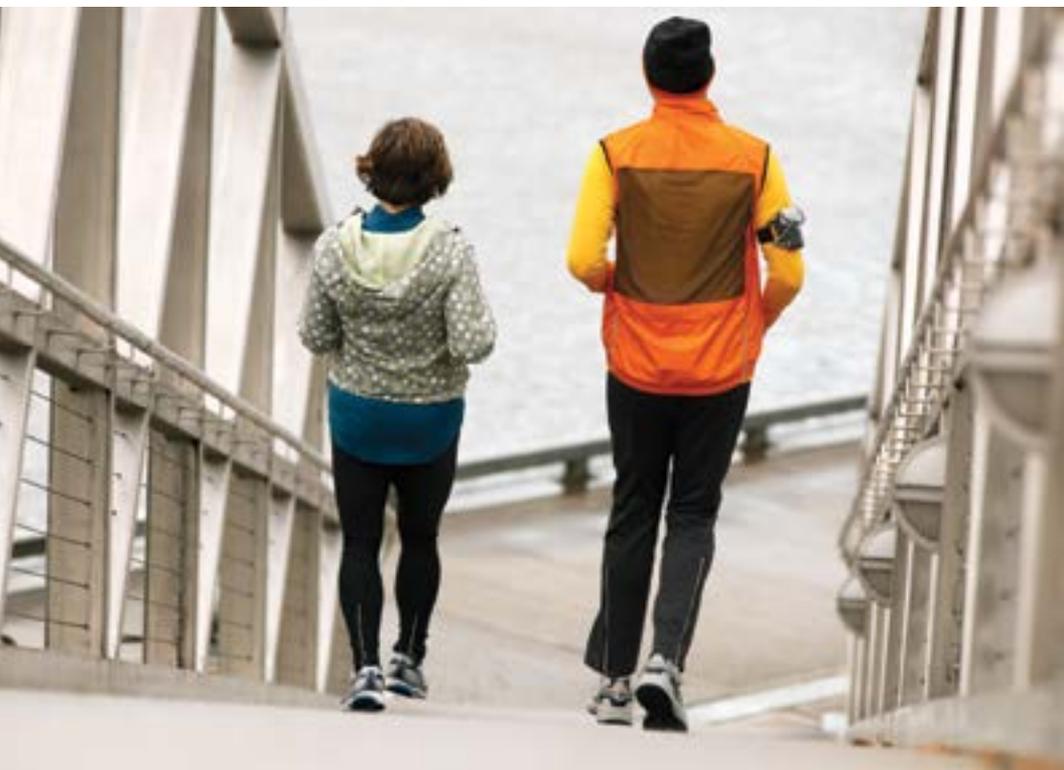
AEROBIC EXERCISE

Performing aerobic exercise like riding a stationary bike, walking, or swimming, as tolerated, will help with your recovery. Begin with 5 minutes, progress up to 20 minutes or more, as able.

A note about using a stationary bike: Adjust your bike so your knee is slightly bent at the bottom of the peddle cycle. The full revolution of the pedal should be comfortable to get around. Resistance should be very light so that the wheel doesn't spin freely.

ADDITIONAL RESOURCES

- Connect to our website at kp.org/mydoctor to access health and drug encyclopedias, interactive programs, health classes, and much more.
- Contact your Kaiser Permanente Health Education Center or Department for health information, programs, and other resources.



Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor.