

Home exercise program: Knee exercises prior to and after knee replacement surgery

Once you return home, exercise is still important to prevent complications and to build strength, as well as improve the motion of your knee. This will help you to increase your activity level to what it was before surgery.

Your leg muscles probably feel weak because you didn't use them much with your knee problems. Surgery corrected the knee problem.

A regular exercise program

A regular exercise program will strengthen your muscles as well as help your knee bend and straighten. Your success with rehabilitation largely depends on your commitment to follow the exercise program developed by your therapists.

Ideally, you should exercise two to three times a day, every day, after surgery. Follow specific directions given to you by your doctor, therapist or nurse.

Complete each exercise 10 times. If you are comfortable with the exercise, increase the repetitions by five times each week, until you reach 20 repetitions:

- week one: 10 repetitions
- week two: 15 repetitions
- week three: 20 repetitions.

For the most comfort, do your exercises lying down. Your bed is an excellent place to do your exercises.



Ankle pumps and circles

Bend both your ankles up, pulling your toes toward you, then bend both your ankles down, pointing your toes away from you. In addition, rotate your foot clockwise and counterclockwise, keeping your toes pointed toward the ceiling.



Thigh squeezes (quadriceps sets)

Tighten the muscles in front of your thigh by pushing the back of your knee down into the bed. Hold for 5 seconds and relax.



Heel slides (hip and knee flexion)

Bend your hip and knee by sliding your heel up toward your buttocks while keeping your heel on the bed. Slide your heel back down to the starting position. Keep your kneecap pointed up toward the ceiling during the exercise. You may want to use a cookie sheet under your heel to help it slide easier.



Leg slides (abduction/adduction)

Slide your involved leg out to the side, keeping your kneecap pointed up toward the ceiling. Slide your leg back to the starting position. You may want to use a cookie sheet under your heel to help it slide easier.



Lying kicks (short arc quadriceps)

Lie on your back with a 3-pound coffee can or rolled blanket under your involved knee. Straighten your involved knee. Hold for 5 seconds. Slowly lower your leg down and relax. The back of your knee should stay in contact with the can/blanket throughout the exercise.



Straight leg raises

Bend your uninvolved leg with foot flat on the bed. Raise your involved leg up (about 12 inches), keeping your knee straight. Hold for 5 seconds. Slowly lower your leg down and relax.



Knee bending (sitting knee flexion)

Sit on a chair. Bend your knee back as much as you can. Hold for 10 seconds. Return to the starting position and relax. Repeat 10 times. You can also sit in a rocking chair and rock gently with your feet resting on the floor so that your knees bend and straighten as you rock.



Prolonged knee stretch

Sit on a chair. Bend your knee back as much as you can. Scoot your body forward on the chair to increase the stretch. Hold for 15 seconds.



Sitting kicks (long arc quads)

Sit in a sturdy chair. Straighten your knee as much as possible. Hold for 5 seconds. Slowly lower your leg down and relax.



Knee straightening stretch

Work on straightening your involved knee for 10 minutes. Sit in a sturdy chair with your heel up on another chair, or a footstool, in front of you. You should feel a stretch on the back of your knee. You can do thigh squeezes while you sit in this position to increase the stretch.



Knee dangling/swinging

Sit on a bed so that your feet will not touch the floor. Allow your knees to bend. Swing your involved leg back and forth so that you feel a gently rebounding sensation. Do this for 2 to 3 minutes.

Optional knee exercises



Buttocks squeezes (gluteal sets)

Tighten your buttocks muscles by squeezing the muscles together. Hold for 5 seconds.



Hamstring sets

Bend your involved knee a little and tighten the muscle along the back of your thigh by digging your heel into the bed. Hold for 5 seconds.