Guidelines for Knee Rehabilitation

Full recovery from your total knee replacement surgery is going to take months. The information in this section will help you understand your recovery and care at home. Exercises are included to help you be an active partner in your care and recovery.

Guidelines to protect your new knee joint

Your new knee has a limited range of motion right after surgery. By following these guidelines, you can help your knee heal well and return to your normal activity level.

- **Knee Immobilizer**
  
  You may be instructed to wear a special knee brace called a knee immobilizer. How often you wear this and for how long will be ordered for you by your doctor.

- **Sitting**
  
  Use a firm, sturdy chair with armrests. Use a cushion or a pillow to raise you up, if needed.

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• **Walking**

Your Physical Therapist will teach you to use a walker or crutches when you walk until your knee heals. Your therapist and your doctor will tell you how much weight you can safely put on your new knee. The length of time you will use a walker will be determined by your doctor. **Do not kneel on your new knee.**

**Your balance might be unsteady for a while.**

- Use handrails on steps.
- Wear low-heeled or flat shoes that are firmly secured to your feet.
- Avoid wet or waxed floors.

### Exercises for Knee Rehabilitation

Regaining strength and motion after knee replacement is dependent on you. Sticking to your exercise program will speed up your return to daily activities.

**Do 10 to 15 repetitions of each exercise and repeat the routine 3 times a day. Slowly increase the frequency of the exercises as your knee becomes stronger.**

- You may need someone to help you with these exercises at first.
- If excessive swelling occurs, slow down, and allow the swelling to decrease.
- Apply an ice pack to your knee after exercises, or anytime in between. Remember to leave the ice on no more than 20 to 30 minutes, and remove it for 20 to 30 minutes before reapplying. Ice will help ease swelling as well as aches and pains.
- These exercises can also be done on your non-operative side.
- **Caution:** Do not use a pillow under your knee at rest. Your leg needs to be flat on the bed to prevent your knee from getting stuck in a bent position.
To relax your knee during exercise:

- While lying down, roll your leg from side to side.

- While sitting, gently rock your foot from left to right.

Quadriceps Sets

- Sit or lie on a flat surface.

- Tighten the muscle on the top or front of your thigh and flatten your knee onto the bed. To get the idea, have someone place a hand under your knee. Push your knee into the person’s hand.

- Hold for a count of 5.

- Relax.
- **Straight Leg Raising**
  - Lie on your back with your operated leg straight. Bend your good leg at the knee.
  - Lift your heel slowly off the bed. Raise your leg about 12 to 24 inches.
  - Slowly lower your leg to the bed, keeping your knee straight.

- **Scissoring**
  - Lie down on your back with your legs straight. Place a plastic trash bag under your operated leg to reduce friction.
  - Keep your toes pointed toward the ceiling.
  - Slide your operated leg out to the side (like opening a pair of scissors). Bring the leg back to the starting position.

- **Side Leg Lifts**
  - Lie on your side with your good leg under you and bent at the knee to keep that position.
  - Raise your operated leg 12 inches off the bed.
  - Hold, then slowly lower your leg.
  - Keep your operated knee straight and your leg in line with your upper body.
Short Arc Quads (Blanket Roll)

- Place a 3 pound coffee can or a blanket roll under your operated knee.
- Rest your thigh on the can and lift your heel off the bed. Straighten your knee as much as possible.
- Pause, and then lower heel.

Quadriceps Setting and Stretching

- Place the 3 pound coffee can or blanket roll under your heel and do a quadriceps set as described before.
- Push down at your knee.
- Hold tight for a slow count of 5.
- Relax.
Knee Extension
- Sit on a chair or the side of a bed.
- Place a hand on the thigh of your operated leg. While pressing down on your thigh, lift your heel and attempt to straighten your knee.
- Lower your heel.

Larrick’s Exercises
Extension
- Support your operated leg with your good leg by placing your foot under the heel.
- Try to straighten your operated leg while using your good leg to help as necessary.

Flexion
- Cross your good leg over your operated leg at the ankle.
- Try to bend (flex) your operated knee back while helping with your good leg.
Foot Slide

- Sit in chair and place your foot of the operated leg on a plastic bag.
- Slide your foot back and forth on the plastic, bending your knee as much as you can.
- Continue this exercise for 5 minutes.

Sitting

- Sit on a chair or the edge of a bed and stabilize your foot against some type of support such as the wall.
- Press down with your arms and gently slide your bottom forward in the chair.
- Hold for a slow count of 5.
- Return to the starting position.
Standing

- While standing, use your walker to support yourself on either side.
- Keep your back and body straight and lift your operated leg forward, backward and then to the side.
- Move your operated leg in a circular motion.
Stair Stepping

- Stand at the bottom of flight of stairs and hold on to either railing.
- Place the foot of your operated leg on the first step.
- Rock gently over your foot, allowing your knee to bend. Bending your good knee as you rock will make flexion easier.

Knee Flexion

- Lie on your stomach on a flat surface.
- With your thigh resting on the surface, bend your operated knee back as far as you can.
- Hold for a count of 5.
- Relax.

Prone Exercises: Begin 3 weeks after surgery.
**Hip Extension**

- Lie on your stomach on a flat surface.
- Keeping your knee straight, lift your operated leg off the surface.
- Hold for a count of 5.
- Relax.

**Passive Extension**

- Sitting on the edge of a chair or sofa, rest your heel on the edge of a coffee table or chair seat.
- Keep your toes pointed toward the ceiling.
- Allow gravity to straighten your knee.
- Hold the position for 30 minutes, 1 to 2 times each day.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.