AFTER TOTAL KNEE REPLACEMENT

Living with Your New Knee
Stepping into Recovery

Before knee replacement surgery, your painful knee may have limited your activity. Movements that you once took for granted became challenges. Replacing your knee was your first step to regaining an active life. Recovering is next. This takes time and effort. But your work now will lead to less pain and more mobility in the future.

Addressing Your Concerns

You may have concerns about your new knee and recovery. Here are some answers to common questions about total knee replacement:

- **Will the pain in my knee stop?**
  Your new knee and exercise program should help relieve the pain you had before surgery. You will have pain from the surgery at first. This will lessen as you recover.

- **When will I go home?**
  You will likely leave the hospital after several days. Some patients then go to a rehabilitation (rehab) center for more therapy. Others go home with the help of a home health team. Ask your surgeon which option will be used for you.

- **When will I walk again?**
  You’ll use a walker soon after surgery with help from your physical therapist. By the time you leave the hospital, you’ll be using the walker or crutches without help. With practice and continued physical therapy, you’ll walk on your own again.

- **Will I be able to do the things I enjoy again?**
  As your knee heals and strengthens, you’ll become more active. With time, you should be able to return to your favorite activities.
Understanding Knee Replacement

The knee is a hingelike joint, formed where the thighbone, shinbone, and kneecap meet. It is supported by muscles and ligaments and lined with cartilage. The cushioning cartilage can wear away over time. As it does, the knee becomes stiff and painful. A knee prosthesis (artificial joint) can replace the painful joint and restore movement.

A Healthy Knee

A healthy knee joint bends easily. Cartilage, a smooth tissue, covers the ends of the thighbone and shinbone and the underside of the kneecap. Healthy cartilage absorbs stress and allows the bones to glide freely over each other. Joint fluid lubricates the cartilage surfaces, making movement even easier.

A Problem Knee

A problem knee is stiff or painful. Cartilage cracks or wears away due to usage, inflammation, or injury. Worn, roughened cartilage no longer allows the joint to glide freely, so it feels stiff. As more cartilage wears away, exposed bones rub together when the knee bends, causing pain. With time, bone surfaces also become rough, making pain worse.

A Knee Prosthesis

A knee prosthesis lets your knee bend easily again. The roughened ends of the thighbone and shinbone and the underside of the kneecap are replaced with metal and strong plastic components. With new smooth surfaces, the bones can once again glide freely. A knee prosthesis does have limitations. But it can let you walk and move with greater comfort.
After Your Knee Replacement Surgery

Your healthcare team will monitor your progress after you wake from surgery. They will use support equipment to help you recover. Be sure to let them know how you feel and how well your pain is controlled.

Your Healthcare Team
Your healthcare team works to get you back on your feet. Your orthopaedic surgeon manages your treatment program, checks your progress, and provides follow-up care. Your nurses monitor recovery and help keep you comfortable. Your physical therapist designs a movement program that includes leg exercises and walking. Your occupational therapist teaches you skills to use during recovery for daily tasks such as dressing and bathing.

Support Equipment
Special tubes and machines help you recover after surgery. They may include:

- An intravenous (IV) line to provide needed fluids and medications.
- A catheter tube to help drain your bladder.
- A drainage tube in your leg to release excess fluid and reduce swelling.
- An ice machine or ice pack to reduce inflammation. The ice machine tube carries cold water to the knee joint.
- A sequential compression machine (SCM) to prevent blood clots by gently squeezing then releasing your foot.
- A continual passive motion machine (CPM) to increase flexibility by gently moving your knee.

Managing Pain at the Hospital
When pain is controlled, you’ll walk sooner and recover faster. So be honest about how much pain you feel. And don’t be afraid to ask for pain medication when you need it. Your nurse may give you IV or oral pain medication. Or you may receive pain medication through an epidural catheter in your spine. Another option is a patient-controlled analgesia (PCA) machine. This machine lets you push a button to give yourself a measured dose of pain medication. Tell your nurse if the medications don’t reduce pain or if you suddenly feel worse.
Your First Exercises

A day or two after surgery, you’ll begin physical therapy with some basic exercises. Exercises help prevent blood clots, build leg strength, and increase range of motion (how much your knee can bend and straighten). Below are some exercises you may be taught.

❑ **Ankle Pumps**
Ankle pumps help reduce swelling and prevent blood clots.
- Point, then flex both feet slowly.
- Repeat 10 to 30 times each hour.

❑ **Quadriceps Sets**
Quadriceps sets strengthen thigh muscles.
- Press the back of your knee down into the bed. Hold for 5 seconds. Release.
- Repeat 5 times each hour.
  Build up to 10 seconds per hold.

❑ **Gluteal Sets**
Gluteal sets strengthen muscles in the buttocks.
- Squeeze your buttocks together tightly to raise your hips slightly. Hold for 5 seconds. Release.
- Repeat 5 to 10 times each hour.

❑ **Heel Slides**
Heel slides increase range of motion and thigh muscle strength.
- Slide the heel of your operated leg toward your buttocks until you feel a gentle stretch. Hold for 3 seconds. Slide your leg back down.
- Repeat 5 to 10 times an hour.
  Build up to 10 seconds per hold.
Mastering the Basics

Your healthcare team will help you get up soon after surgery. They will show you how to sit up, stand, and use the bathroom safely. You’ll also spend time in bed. Use this time to do exercises. When resting, place a rolled-up towel under your ankle to help straighten your knee.

Sitting Up
The first few times you sit up, a healthcare provider will help you move your leg. Soon, you’ll be able to sit by yourself at the edge of the bed with your feet touching the floor.

Standing with Support
A healthcare provider will help you stand. A safety belt may be placed around your waist to prevent a fall. A knee immobilizer may be put on your leg to protect the knee as you stand and use a walker.

Going to the Bathroom
At first you’ll be assisted to the bathroom. Later, you’ll go on your own with a walker. A commode chair over the toilet helps make sitting easier. To use it, follow these steps:

• Back up until you feel the back of your legs touch the commode.

• With your weight on your unoperated leg, place the operated leg in front of you. Reach back for the armrest. Lower yourself onto the commode.

• To stand up, push up using the armrest, keeping your weight on your unoperated leg.
Using a Walker

Once you can stand, you’ll begin using a walker. As you become comfortable using the walker and your knee strengthens, you’ll be taught more advanced skills. For instance, you may practice stepping on and off a curb.

Your First Steps

- Push your walker a few inches in front of you.
- Keeping your back straight, lean on the walker so it supports your weight. Step into the center of the walker with your operated leg, being careful not to twist your leg. Then, step with your other leg.
- As you get more comfortable using the walker, you may be able to move it as you step.

Walking Up a Curb

- Move your feet and the walker as close to the curb as possible.
- Put your weight on both your legs, then lift the walker onto the sidewalk.
- Step onto the sidewalk with the unoperated leg. Using the walker to support your weight, bring up the operated leg.

Walking Down a Curb

- Move your feet and the walker as close to the edge of the curb as you safely can.
- Lower the walker onto the street, keeping its back legs against the curb.
- Using the walker to support your weight, lower the operated leg. Then step down with the other leg.
More Advanced Exercises

When the surgeon and physical therapist decide you’re ready, you’ll begin more advanced knee exercises. These help strengthen and stretch the muscles around your knee. Repeat each exercise 10 times per session. Build up to 25 repetitions. Do 2 sessions each day.

- **Short-Arc Knee Extensions**
  - Lie on your back. Place a rolled-up towel under your new knee and bend the other knee.
  - Keeping your new knee on the towel, lift your foot several inches to straighten the knee. Hold for 3 seconds. Slowly lower the foot to the bed.

- **Straight Leg Raises**
  - Lie on your back. Bend your unoperated leg, keeping your foot flat on the bed.
  - With your operated leg as straight as possible, lift it about 1 foot off the bed. (At first, you may only be able to lift the leg a few inches.) Hold for 3 seconds. Slowly lower the leg to the bed.

- **Standing Knee Bends**
  - Stand while holding on to a steady surface, such as a table.
  - Bend your operated knee as far as it will go. Hold for 3 seconds. Slowly lower the leg.

- **Long-Arc Knee Extensions**
  - Sit in a chair with both feet flat on the floor.
  - Straighten the operated knee as much as you can. Hold for 3 seconds. Slowly lower the leg.

**Note:** You may be asked to take pain medications at least 30 minutes before physical therapy or exercise sessions.
Walking with Crutches

Once your balance improves, you may begin using crutches instead of a walker. Crutches can help you walk with an even stride. Your physical therapist will give you guidance and make sure you are safe as you learn to get around.

Using Your Crutches

- With crutches in place, lean on your hands, not your armpits.
- Move your operated leg and crutches forward at the same time. Keep the operated leg lined up with your crutches.
- Look straight ahead, and step through the crutches with the unoperated leg.

Walking Up Stairs

- Hold the rail with one hand and both crutches in the other. Support your weight evenly between the rail and your crutches.
- With your crutches and operated leg on the lower step, step up with your unoperated leg.
- Keeping a grip on the rail, bring your operated leg and crutches up to the same step.

Walking Down Stairs

- Hold the rail with one hand and both crutches in the other.
- With your weight on your unoperated leg, step down with your operated leg and crutches.
- Using the crutches and rail for balance, slowly bring your unoperated leg down to the same step.
Preparing to Go Home

Before you leave the hospital or rehab center, you’ll need to prepare. You and your healthcare team will assess how well you can care for yourself at home. You may need friends, family, or a home health aide to help with chores and errands. Your occupational therapist will teach you the skills needed for daily living with your new knee.

Home Safe Home
Is your home as safe as it should be? Or, are there potential hazards, like rugs and cords, ready to trip you up? Make sure your home is safe and free of hazards before you return. Ask friends or family to help you rearrange rooms as needed. Once home, avoid uneven or wet floors that can cause slips.

Think Before You Move
You’ll be walking with a walker or crutches by the time you get home. To avoid injury, think before you move. If you’re tempted to twist and turn around quickly, slow down. Always be aware of your movements as you go about your daily activities.
Managing Pain at Home
You may be prescribed pain medication to use at home. With pain under control, you'll get back to an active life sooner. Use pain medication only as directed. Take each dose on schedule, before pain becomes severe. (Don’t be afraid to take medication when you need it.) Wait about 30 to 40 minutes after taking pain medication before starting an activity, such as exercise. This will give it time to start working. Tell your doctor if the medication doesn’t control your pain or if you suddenly feel worse. Icing and elevating your leg can also help relieve pain (see page 13).

Making Your Bathroom Safe
You may need to adjust your bathroom to make it safer and easier to use. Your occupational therapist can help you choose the right equipment for your bathroom. He or she will also teach you to bathe, dress, and sit more easily in the bathroom.
Your At-Home Program

You’ll apply the same movement skills you learned in the hospital or rehab center to your exercise program at home. You may also continue meeting with your physical therapist. Following your exercise program brings big rewards. With your knee in shape, you’ll walk more easily and return to an active life sooner.

Maintaining Your Exercise Program

Exercising is the only way to regain your strength and range of motion. Lack of exercise can cause joint stiffness and decreased range of motion. But with continued exercise, you may even gain more strength and range of motion than you had before surgery. That’s because before surgery, pain may have limited your movement. So make exercise part of your daily routine. Continue meeting with your physical therapist as directed. He or she may add riding a stationary bike or other new exercises to your program.

Sitting Knee Exercises

Sitting knee exercises increase both strength and range of motion. Do them along with your other exercises. Start with 10 repetitions, then build up to 25 repetitions per session. Do 2 sessions each day.

- Sit in a chair with both feet flat on the floor.
- Slowly straighten your operated leg as much as you can. Hold for 5 seconds.
- Slowly bend your leg under the chair, bringing it back as far as you can. Hold for 10 to 20 seconds. Return your leg to the starting point.
Controlling Swelling
Swelling is common after total knee replacement. It may be worse after exercise. The tips below may help:

- **Ice your knee.** Wrap an ice pack or bag of frozen peas in a thin cloth, then place it on your knee. Don’t place ice directly on the skin or use ice for more than 20 minutes at a time. If you have an ice machine, use it as directed.

- **Elevate your leg** above your heart. Ask your healthcare provider about safe positions to do this.

- **Continue doing ankle pumps** (see page 5). They help reduce swelling, improve circulation, and prevent blood clots.

Walking in Stride
Walking helps build a more normal, comfortable stride. It also keeps you in shape and helps prevent blood clots. Begin by taking three or four short walks every day. Gradually increase how far, how long, and how many times a day you walk. After your walk, lie down, elevate your knee, and ice it to reduce swelling. Your doctor or physical therapist will instruct you when and where to use your walker, crutches, or cane. They will also let you know when you can stop using them.

Returning to Everyday Activities
Within a few months after surgery, you’ll likely be back to your normal routine. This includes returning to work if you have an office job. As your knee gets stronger, you’ll be able to do more activities you enjoy.
Keeping Your Knee Healthy

Knowing the right moves and avoiding the wrong ones will help keep your knee healthy. Know which movements and activities are safe, and which could harm your new knee. Follow up with your orthopaedic surgeon to be sure your recovery is on track.

**Do’s**
- ✔ Do position your knee comfortably as you go about daily activities.
- ✔ Do continue to exercise and walk every day.
- ✔ Do use an ice pack if your knee begins to swell or feel tender.
- ✔ Do wear comfortable shoes with good traction and support.
- ✔ Do turn your body in small steps.

**Don’ts**
- ❌ Don’t force your knee into position. Avoid bending your knee too far.
- ❌ Don’t do high-impact activities such as jumping. They could loosen your new knee joint.
- ❌ Don’t overdo it. Take activities slowly and rest when you need to.
- ❌ Don’t twist your knee. Turn your entire body instead.

**Follow-up Care**
Your orthopaedic surgeon will schedule follow-up visits to make sure that your knee is healing well. Use this time to ask any questions you have about your recovery or activities.
Your Personal Exercise Program

Use the space below for your exercise instructions. For each exercise, write the number of repetitions and sessions you should do per day.

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Repetitions/sessions per day</th>
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<tbody>
<tr>
<td>Ankle pumps</td>
<td>❑</td>
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<tr>
<td>Quadriceps sets</td>
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<td>Stationary bike</td>
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<tr>
<td>Sitting knee exercises</td>
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<tr>
<td>Walking</td>
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</tbody>
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Your Medical Instructions

**Preventing Infections**
An infection in your body can harm your new knee. Call your surgeon if you have a cold or other infection. Also call if you schedule a medical or dental procedure. You may need to take antibiotics to prevent infection.

Call your surgeon if you have:
- Excessive pain or swelling in the knee, calf, or elsewhere
- Drainage from the incision
- Redness at the incision site
- Fever over 101°F (38.3°C)

**Appointments**


**Medications**


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Returning to Everyday Activities

After a total knee replacement, you can look forward to moving more easily. With the help of your healthcare team, you’ll regain strength and confidence in your new knee. Then you’ll once again enjoy the things you love to do, like gardening, riding your bike, and strolling on the beach.

Take our Patient Survey. Help us help other patients. Please visit www.kramesurvey.com to provide your feedback on this booklet.

Consultants:
Joyce Chadderdon, PT, Rehabilitation Physical Therapy
Susan Elias, PT, Acute Physical Therapy
With contributions by:
Lisa Olds, RN, BSN, ONC
Beth Trouy, PT, Outpatient Physical Therapy
Colleen Walsh, RN, MSN, ONC, ACNP, Orthopedic Nursing

Also available in Spanish