



Knee Replacement



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

- ☐ Total Knee Replacement
- ☐ Partial Knee Replacement

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For an electronic copy of this book, go to go.osu.edu/pted4060.

This book is for informational purposes only. Talk to your healthcare provider if you have any questions about your care.

For more health information, go to wexnermedical.osu.edu/patiented or contact the Library for Health Information at 614-293-3707 or health-info@osu.edu.

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Important Information

Joint camp class

Before your surgery, we ask that you attend our **Joint Camp Class** to prepare you for your surgery and to go home after.

In-person classes are held at a few locations. Your surgery staff can help you select the location closest for you.

Virtual Class Option: This class is offered to our patients who live 1 or more hours away from their surgery location.

To schedule an in-person or virtual joint camp, please work with your surgery scheduler.

Surgery location

Your surgery will be at 1 of these locations:

- ☐ **Outpatient Care Dublin**
6700 University Blvd., Dublin, OH 43016
Phone number: 614-814-7651
Parking is free
- ☐ **East Hospital**
181 Taylor Ave., Columbus, OH 43203
Phone number: 614-257-3737
Parking is free
- ☐ **University Hospital Same Day Surgery Center**
410 W. 10th Ave., Columbus, OH 43210
Phone number: 614-366-7744
Parking garages or valet available, cost varies

Rehabilitation

Outpatient rehabilitation is an important part of your recovery. Talk to your surgeon about when to begin physical therapy. Call **614-293-2001** if you would like to schedule an appointment at an Ohio State location. We recommend you call before surgery to schedule your first visit.

Orthopedic Clinic hours

- Our office is open Monday through Friday from 8:00 AM to 4:30 PM, except for University holidays.
- If you call after office hours, you can wait for the answering service to pick up if you have an immediate need.
- If you would like to speak to the doctor on call, they can be paged to contact you.

Contacting us

- We try to answer all phone messages within 1 to 2 days of your call.
- During clinic hours, phone messages are not checked until the end of the day, and those messages may not be answered until the next day.
- If you need to speak to someone right away, please call **614-293-2663**.

Call us if any of the following occur after your surgery at 614-293-2663:

- Redness, swelling, or drainage from the incision site
- Fever of 101 degrees F (38°C) or more
- Edges of the wound start to separate
- Leg turns pale or blue in color
- Leg tingling or numbness
- Leg pain
- Coldness of the leg

About Knee Replacement

Knee replacement is a surgery to replace worn or damaged parts of the knee joint. The surfaces of the joint are removed and replaced with an artificial joint. This surgery can relieve pain and improve movement in your knee joint.

You may need a total or partial knee replacement if:

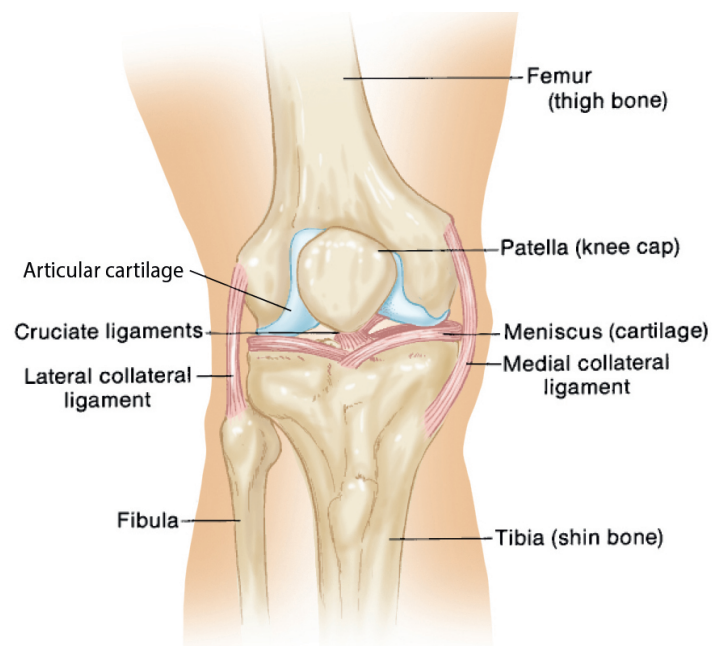
- Other treatments, such as medicine, steroid injections, and physical therapy, no longer stop your pain or help movement of the joint.
- Pain or poor movement in your knee prevents you from doing normal activities.

Normal knee joint

Your knee is a hinge joint where the end of the thigh bone (femur) meets the top of the large bone in your lower leg (tibia).

A healthy knee has smooth cartilage that covers the ends of the bones. The two bones glide smoothly as you bend your knee.

The muscles and ligaments around the knee joint support your weight and help move the joint smoothly when you walk.

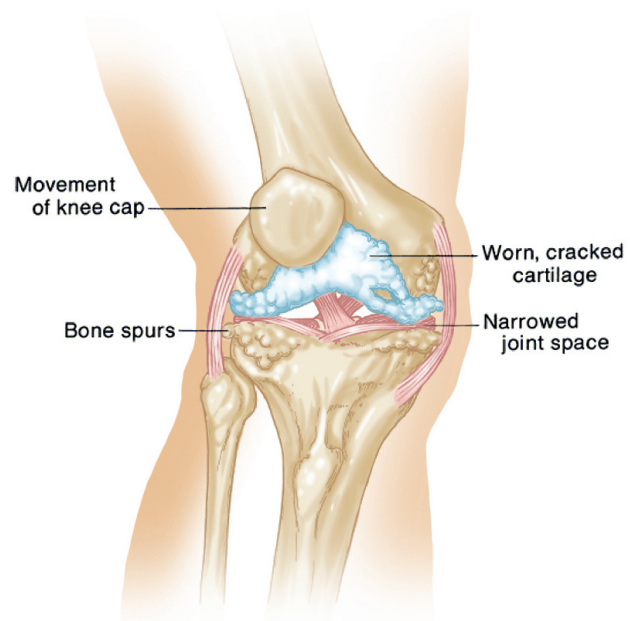


Worn knee joint

The smooth cartilage layers can wear down on the ball and socket part of the knee joint.

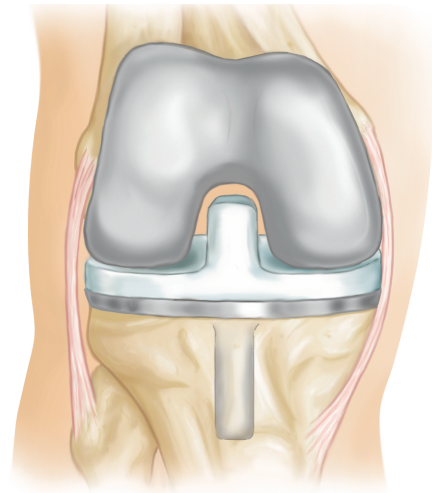
The cartilage can wear down as you age, or from injury, arthritis, or as a side effect from certain medicines.

When the joint wears down, the smooth surfaces become rough, like sandpaper. As you move your leg, the bones grind causing pain and stiffness.



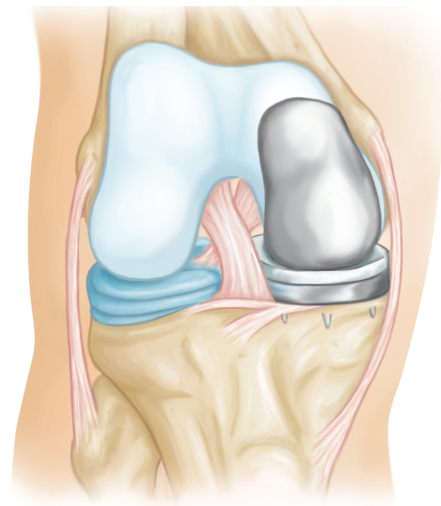
Total knee replacement

During surgery, the damaged cartilage and ends of the bones of the knee joint are removed. A new joint is created using an artificial joint made of metal and very strong plastic. Parts of the new joint may be cemented in place with special bone cement. The metal has a porous surface that your bone will grow into as it heals to create a tight fit.



Partial knee replacement

During surgery, the surgeon will inspect the knee to be sure the damage is limited to just one part of the knee. The cartilage and bone in the damaged part is removed and replaced with metal covers to make a new joint surface. A plastic insert is placed between the 2 metal parts to act as a cushion between them.



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Patient Reported Outcomes

We are interested in how our patients improve after they have had surgery with us. One way that we do this is by asking our patients about the results they have had from their surgery. This is called patient reported outcomes or PROs. We will ask you a set of questions before surgery and then at different times after surgery.

You will get a text message and/or email (depending on what information we have for contacting you). The message will be from the Ohio State Orthopaedics team and will have a link to complete the surveys.

We strongly encourage you to take part in these surveys. It allows us to more closely monitor your recovery. It also lets us to use your reported feedback to continue to improve the quality of care we provide to our patients.

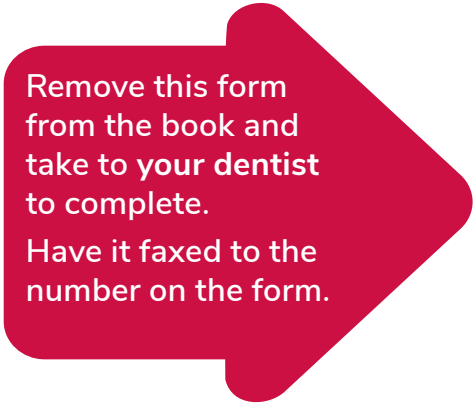
If you have any questions about this, please reach out to your surgeon or a member of their team.

Dental Clearance for Surgery

Schedule an appointment with your dentist and take the form

Because the risk of infection could cause serious problems with your replaced knee, you need to have a dental clearance visit. You will need to bring the form on the next page with you for your dentist to complete. If you do not have a dentist, check with the surgeon's office to see if they can help you find a dentist.

If you are found to need any teeth removed or repaired, or if you have other problems with your gums, teeth, or dentures, **your surgery may need to be delayed until the issues are treated and you have healed.**



Remove this form
from the book and
take to your dentist
to complete.

Have it faxed to the
number on the form.



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Orthopedics
Phone: 614-293-2663
Fax: 614-685-9889

Total Joint Replacement Dental Consult

(Patient to provide this consult form to their dentist and return a signed copy)

NAME:

DOB:

MRN:

Our mutual patient noted above is scheduled to undergo total joint replacement surgery. Prior to surgery, it is important to verify that the patient has had a dental exam within the past 6 months, has no current dental infection, no active cavities, gum disease, abscessed teeth, fractured teeth or fillings, loose teeth or other oral pathology and no anticipation of dental care within the next 6 months.

This patient is optimized for surgery and requires no further treatment or workup prior to proceeding with surgery. ☐ YES ☐ NO

This patient is NOT medically optimized and will require the additional evaluations as noted below for the special concerns noted below:

The risk involved with a surgical procedure for this patient is: ☐ low ☐ moderate ☐ high.

I certify that the patient has had a dental exam within the past 6 months and does not have a dental infection requiring treatment. Date of last exam: _____.

Dental Provider's Signature *Date*

Dentist Name (printed name): _____

Phone number: _____

Fax number: _____

This letter is an important part of our preoperative patient evaluation; please fax this letter back to us as soon as possible at 614-685-9889.



MEDCLE

THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER

TOTAL JOINT REPLACEMENT DENTAL CONSULT

THC041 (4/24)

THC041(4/24)

Patient Name:

Medical Record Number:

Date of Birth:

Financial Issues and Leave Paperwork

Check with your insurance

- Your health insurance provider may require pre-authorization for this surgery. **Contact your insurance company and talk to the staff in your surgeon's office.**
- Please be prepared to **pay your co-payment, co-insurance, or deductible on the day of your surgery.**
- If your insurance has less than 100% coverage, we ask that you pay a deposit of \$300 before the procedure.
- A representative from the hospital will contact you to pre-register you for your surgery. If you have not received a call by 2 days before your surgery date, please call our Pre-Registration Department at 614-293-8200 or 866-312-7846. The representative will be able to discuss both your doctor and hospital coverage and charges.
- If you have MyChart, you can log on and complete a pre-registration questionnaire.

Financial aid

We will work with you and your family to help you get the care that you need.

If you do not have health insurance or cannot pay your bill, we encourage you to call our Financial Counseling office at 614-293-2100 or 800-678-8037. The staff member will be able to help check if you might qualify for aid. They can help:

- Fill out government program applications.
- Share programs that may help with costs.
- Figure out a workable payment plan for the cost of your treatment.

The financial counselor can also help you with options related to the Affordable Care Act.

The Ohio State Wexner Medical Center offers a sliding scale financial assistance program based on federal poverty guidelines that would be offered if you qualify.

Short term disability or family medical leave (FMLA) paperwork

- We will gladly complete FMLA or short term disability forms to cover the period right after your surgery.
- As the patient, you are responsible for obtaining the needed documents from your employer to provide to our office.
- Please allow 7 to 10 business days for our office to complete these forms. We also ask that you provide as much information as possible when you fax or drop off paperwork to the office.
- Please be sure to provide the best phone number to reach you, in case we have questions about your paperwork. Paperwork should be provided 30 days before your surgery date.

Long term disability or workers' compensation

If you need long term disability forms, work capacity forms, or determination of permanent disability, we suggest you are seen by Occupational Medicine.

- Proper completion of the paperwork requires a special set of skills and knowledge of the disability guidelines.
- Incorrect completion of the forms could impact your case in a serious way.

If your case is covered by workers' compensation, our surgeons will not serve as your "physician of record" past the first 90 days from your date of surgery.

Preparing for Surgery

Review these instructions as soon as you get them, so you are well prepared for your surgery. Being well prepared can help you have a better recovery. Follow these instructions to keep your surgery on schedule. Call your doctor's office if you have any questions.

Recovering at home after surgery

We encourage you to prepare to go home after your joint replacement. Over the last few years, we have made changes to how surgery and recovery is done to prevent a need for long hospital stay or recovery in a nursing facility. **The safest place for you to recover is at home. This may also be a cost savings to you.**

Many patients are able to go home on the same day of their surgery. In some cases, you may need to stay at the hospital overnight.

It may also be possible to arrange for physical therapy to come into your home. It is best to have someone to assist you at home, such as a family member or friend. You will likely not need around-the-clock help after your first night home.

Attend Buckeye Joint Camp

This is a free 1-hour class to help you prepare. **Surgeons highly recommend you take this class before your surgery.**

Attend in person or virtually upon request. You will learn:

- What you need to do to get ready.
- What you can expect during your hospital stay.
- How to plan and prepare for your discharge to home.
- How to get the best results from your therapy and recovery.

Register at your surgeon's office. We recommend you bring a caregiver with you, however it is not required.

Pre-admission testing visit

You will be scheduled for some tests to check that you are ready for surgery. You will have a physical exam a few weeks before your surgery. You will also have blood tests, a chest X-ray, and maybe an electrocardiogram, also called an ECG or EKG, to check your heart. You will also be provided with instructions for home medications at this appointment.

You may have a visit with a provider (doctor or advanced practice provider) a month before surgery to go over expectations and recovery from surgery.

Please notify your surgeon's office if you have to cancel or change pre-admission testing appointment as this can effect your surgery date.

Medicine changes before surgery

- ❑ **Review a list of all of your medicines with your doctor.** Be sure to include all prescription and over the counter medicines, as well as any herbal or vitamin supplements you take.
- ❑ **If you are on blood thinners or antiplatelet medicines,** please let your surgeon know in case the medicine needs to be stopped or changed before surgery. If you have a stent or you have had a blood clot, **talk to the doctor who placed the stent or treated your blood clot before you stop taking this medicine.**

Your medicine may need to be changed or adjusted before surgery.

If your surgery date gets changed, and you had stopped or changed your medicine to prevent clots, call your doctor. You may need to restart the medicine while you wait for your surgery to be rescheduled.

- ❑ **During your Preoperative Assessment appointment,** you will be given exact instructions on what medicines to stop or change before surgery.
- ❑ **If you use one of these injection medicines,** stop taking it before your procedure as listed below:

Medicine	When to stop taking before procedure
<ul style="list-style-type: none">▸ dulaglutide (Trulicity)▸ exenatide (Bydureon BCise, Byetta)▸ liraglutide (Saxenda, Victoza)▸ semaglutide (Ozempic, Wegovy)▸ tirzepatide (Mounjaro, Zepbound)	<ul style="list-style-type: none">▸ If you use the injection daily: do not use on day of procedure▸ If you use the injection weekly: stop taking 1 week before the procedure▸ If you use the injection weekly for weight loss only: stop taking for 2 weeks before the procedure

- ❑ **Stop hormone replacement or birth control pills** for 4 weeks before and 4 weeks after surgery, unless you have been given other directions from your surgeon.
- ❑ **Stop all herbal medicines and multivitamins** 14 days prior to your surgery. This will be confirmed at your pre-op visit.
- ❑ **Stop taking non-steroidal anti-inflammatory medicines,** also called NSAIDs, for 5 days before surgery. These include diclofenac, Advil, Motrin, Aleve, Celebrex, Mobic, or any generic versions of ibuprofen, naproxen, or meloxicam.

Tylenol can be taken if needed.

Other health issues

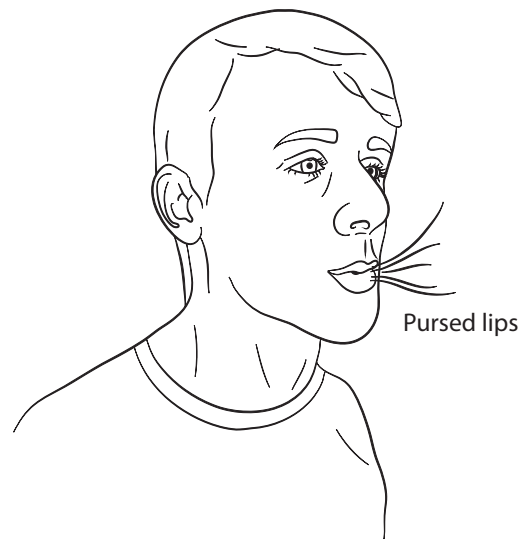
- ❑ If you get sick with a cold, sore throat, cough, or fever, or you have any infection before your surgery, call the office right away. Your surgery may need to be rescheduled until your infection is treated to avoid your new joint getting infected.
- ❑ Have good eating habits and control your weight. If you are overweight, losing weight can make your recovery and rehabilitation easier.
- ❑ If you are a smoker or tobacco user, **you must quit to heal well after surgery and reduce your risk of infection.** Talk to your doctor about help to quit.
 - Quitting at least 4 to 6 weeks before and up to 8 weeks after surgery will help your surgical wounds heal quicker and be less likely to get infected.
 - Oxygen is needed for wounds to heal properly. Just 10 minutes of smoking can decrease the amount of oxygen in tissue for up to 1 hour!
 - Wound healing is harder in homes with a smoker because the dressings absorb smoke.
- ❑ **You will have a nicotine test before surgery. Your surgery will be canceled if it is positive.**

Learn and practice coughing and deep breathing

Your lungs are not working at their best after surgery. This is because of the length of time you are anesthetized or sleeping during your surgery. After surgery, the nurses will encourage you to cough and deep breathe to exercise your lungs.

Practice these exercises to help strengthen your lungs before your surgery to decrease your risk of pneumonia after surgery. Repeat every 1 to 2 hours when you are awake.

1. Breathe in slowly and deeply through your nose and hold for a few seconds.
2. Purse your lips like you are going to blow out a candle and breathe out slowly.
3. Repeat 5 times, and then take a deep breath in and cough.
4. Do 3 sets of 5 breaths and a cough.



Practice your exercises to work your leg muscles

- Do these exercises to strengthen your leg muscles and help prevent blood clots.
- Do these exercises **lying on your back**. Exercise both legs. **Repeat each exercise 10 times, 2 to 3 times each day**, or as directed by your doctor, therapist, or nurse.
- **Breathe in as you tighten your muscles and out when you relax them.** This helps keep your muscles relaxed. Breathe in normally when you hold a position.
- Continue these exercises after surgery, until you become more active.

Ankle Pumping: This strengthens your calf muscles in your lower leg.

1. Bend your ankle, pulling your foot up towards your head.
2. Push your foot back down, away from you as far as possible, like you are pushing on the brake pedal of a car.



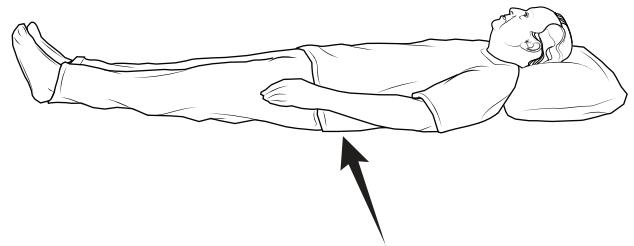
Quad Setting: This works your upper leg or thigh muscles.

1. Tighten the muscles of your upper leg.
2. Keep your knee straight and push your knee down into the bed. To get the idea, have someone place a hand under your knee. Push your knee down into the person's hand.
3. Hold for a count of 5, and then relax and repeat.



Gluteal Sets: This works your buttocks muscles.

1. Squeeze your buttocks together.
2. Hold for a count of 5, and then relax and repeat.



Plan Now for Your Care After Surgery

You will need some help to move around safely when you first leave the hospital after surgery. It is easier to **have a plan for help ready before you have your surgery.**

Plan for help

You should plan to have someone available to assist you with the following items for the first week or two after your surgery:

- Give you a ride home from the hospital.
- Get you in and out of the car.
- Help you with bathing and exercising.
- Get you into and out of bed.
- Do laundry and light housekeeping.
- Get you to your follow up appointments.
- Collect your mail.
- Care for your loved ones or pets.

Our goal is to have you go home after surgery.

Prepare your home

- **Prepare a room with all your equipment on the first floor, if possible.**
- Arrange your furniture to have wide, safe walkways through your home.
- Remove clutter or throw rugs from the floor that may cause you to trip and fall.
- Clear away any foot stools, electrical cords, or other small items on the floor that could trip you.
- Rearrange your kitchen to have those items you use often within easy reach.
- Shop for frozen or canned food that will be easy to prepare.
- Put non-skid strips or pads in your bathtub or shower for safety.

Buy adaptive equipment

You may need several pieces of equipment to make your daily activities easier and safer after surgery. Other pieces of equipment may be useful to you after surgery based on your needs.

Most of the equipment is not covered by insurance, but **check with your insurance company to see what may be covered.**

You may be able to get some of the equipment from your local drug store or medical supply store.

Please contact your surgeon's office **at least 2 weeks before surgery** if you need to set up durable medical equipment so these prescriptions can be sent to a medical supply store.

Items you will need:

- ☐ **Walker:** Helps you to be safe when standing up and moving. We recommend getting a walker before surgery, ideally a front wheeled walker.
- ☐ **Cushion:** Used to raise the seat height of a chair, car seat, or other surfaces.

Pain Management

Most people have some pain for the first 1 to 2 weeks after their surgery. Good pain control helps you feel comfortable, so you can take deep breaths, walk, and sleep. These things help to lower your risk of problems, such as pneumonia and blood clots, after surgery.

Take your medicine as ordered by your doctor to bring you the most relief as your body heals.

Pain relief procedures

Besides oral medicines, your surgeon or anesthesiologist may recommend spinal analgesia for your surgery to control pain. It can also help to control pain after surgery.

Spinal Analgesia

- After cleaning and numbing the skin, a needle is put into the space around the spinal cord. It does not go into your spinal cord. When the needle is in the right place, you will be given an injection of pain medicine, and then the needle is removed.
- It can help to control pain after surgery early in your recovery.
- Rare side effects may include: headaches, numbness or tingling in lower legs, back soreness, bleeding, allergic reaction, or infection.

Pain control after surgery

Pain control is an important part of your overall treatment. Uncontrolled pain can interfere with sleep, healing, thinking, activity, and appetite. Ask for relief from pain before your pain worsens.

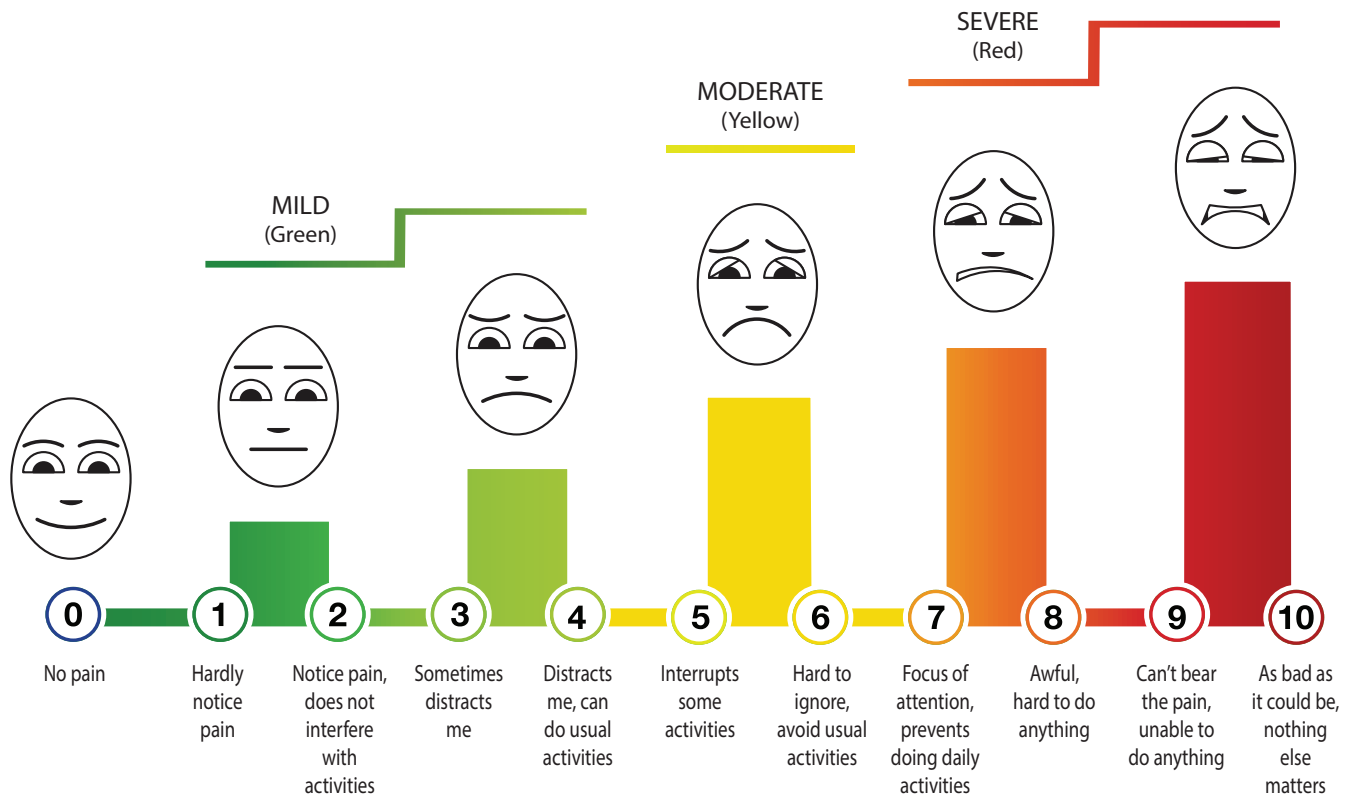
You can expect some pain at the incision site and joint for several weeks after your surgery.

You may also have some soreness in other parts of your body because of the way you were positioned during surgery. Pain medicine and increasing your activity each day will help to ease the soreness.

- You may need to take your pain medicine before your exercises or activities to improve your recovery.
- We will provide prescriptions for medicines for 7-day intervals per state law. If you need a refill before your 2 week visit, please call the office. We are unable to refill prescriptions on the weekend or at night.
- You will need over the counter acetaminophen (Tylenol) 500 mg tablets after surgery. You will be taking 1000 mg every 8 hours after surgery once you get home.

Use the scale and choose the number (0 to 10), description, or face that best matches the pain you feel now.

Defense and Veterans Pain Rating Scale



Defense & Veterans Center for Integrative Pain Management v 2.0

Pain expectations

- Our goal is to get your pain level to a 4 to 6 out on a 10 point scale so you can work with therapy.
- You will have pain after surgery. It will be worse for the first 2 to 3 weeks. We will prescribe medicines to help control pain, but you will still have mild pain after taking medicines.
- We will provide prescriptions at discharge, including pain medicines. If you need a refill before your 2 week visit, please call the office.

Non-drug pain control

Many patients find using other treatments will help to reduce the need for pain medicines. Some of these options may include:

- ☐ Activity: Start moving as soon as possible after surgery if your doctor says it is okay. Moving helps your breathing and digestion, and helps you heal faster. Moving and being active can help lessen pain over time.
- ☐ Cold: Cold can help lessen some types of pain and is recommended after knee replacement. It is best to use ice for 30 minutes, every 1 to 2 hours.

Pain medicine policy

Pain management is important for your recovery. We want you to know about our policy on prescription pain medicines.

- Your primary care doctor is responsible for managing your pain until surgery.
- If you have been on narcotic treatment for pain before surgery, your pain will likely be more difficult to control after surgery. Talk to the doctor who has been providing your narcotic medicine about reducing or eliminating your narcotic use before surgery.
- Patients treated by our Orthopedic doctors may only receive narcotic pain medicine from one provider.
- After surgery, you will be given a prescription for 7 days worth of pain medicine.
- Our surgeons will manage your pain for **no more than 6 weeks**.
- If narcotic pain medicine is still needed after 6 weeks, you will be referred to the Pain Clinic.

Pain medicine refills

- Pain management will be addressed during your office or clinic visits.
- Be sure we have your correct pharmacy information. Only 1 pharmacy can be used for your pain medicine refills.
- Ohio law does not allow more than a 7-day supply of narcotic pain medicine.
- If you need a refill between office visits, you need to **allow 48 hours** for the refill.
 - **You must call during clinic hours only, and before noon on Fridays.**
 - Prescriptions will not be refilled on a walk in basis in clinic.
 - We do not refill prescriptions at night, holidays, or over the weekend.
- Prescriptions are most often sent electronically to the pharmacy. In some cases, you will need to pick up the hand written prescription at the office or it may be mailed to you.
 - If your prescription is lost or stolen, a police report would be required to issue a new prescription.
 - If a mailed prescription gets lost in the mail, we will not issue a new prescription.

Risks of narcotic medicines

- Nausea or upset stomach
- Constipation
- Sexual dysfunction
- Depression
- Fatigue
- Increased sensitivity to pain
- Addiction and drug tolerance

If you have questions, please contact our office at 614-293-2663.

Day Before and Morning of Surgery

Evening before surgery

- Have an **adult who will be able to bring you to the hospital** for your surgery.
- Gather items that you need to bring with you in the morning:
 - › **Photo ID**
 - › **Insurance card or cards**
 - › **Co-payment** if needed
 - › **Bring any medicines you are currently taking with you to your surgery**
 - › **Walker** with front wheels
 - › **Personal items** that you may need for an overnight stay (include cases for glasses, contacts, dentures, or hearing aids if you use them)
 - › **CPAP machine** if used for sleep apnea
 - › **This book**
- Also plan to leave these items at home:
 - › **All valuables**, such as your wallet and purse
 - › **All jewelry** including a watch, rings, and **any form of piercing**
- **Take a shower with CHG soap** this evening as instructed. Follow the directions for Getting Your Skin Ready for Surgery on the next pages.

No eating or drinking after midnight

- You cannot eat or drink anything after midnight the night before your surgery. This includes no chewing gum, mints, or candy after midnight.
- **Do not smoke anything** after midnight the night before your surgery. Smoking or chewing tobacco, or using any nicotine can delay wound healing and increase your risk of infection after surgery.
- You may brush your teeth and rinse your mouth after midnight, just be sure you **do not swallow anything**.

Morning of surgery

- **Take the medicines you were instructed to take with small sips of water.** Please refer to your patient instructions from Pre-Admission Testing.
- Take another shower with CHG as directed. Do not use any lotions, powder, or other skin products.

Positive nasal screen

It is possible that you may need to start a nasal medicine called mupirocin if you had a positive nasal screening during your pre-op visit. We will call you if you need to start this medicine.

Getting Your Skin Ready for Surgery

Prevent infection with clean skin

Because germs live on everyone's skin, there is a chance of getting an infection when your skin is cut during surgery. To reduce the chance of infection, clean your skin with a special soap called **4% chlorhexidine gluconate or CHG**, sold by the brand name Hibiclens. You may be given or you will need to buy an 8-ounce bottle or larger. Ask your pharmacist where to find it in the drug store. It is often with the first aid supplies.

- **Do not shave for 1 week near the site for your surgery cut.** Shaving with a razor can irritate your skin and make it easier to develop an infection. If needed, the hair on the site will be trimmed with electric clippers before you go to the operating room.
- CHG soap does not bubble and lather like most soaps.
- Be careful not to get CHG into your eyes, nose, mouth, or ears. If you do, rinse well with clean water.

Shower with CHG as directed

Follow **the steps on the next page** for how to shower with CHG soap.

- **You need to take 2 showers using CHG.** Wash your whole body from the neck down with CHG soap the night before, and then again the morning of your surgery. Use 4 ounces (½ cup) of CHG soap each time you shower.
- Be sure to **wash for 5 minutes and pay special attention to your knee site where your surgery will be done.** Be sure to wash the back of your neck, under your arms, your belly button, private parts, and your legs down to your toes.
- **Do not scrub too hard.**

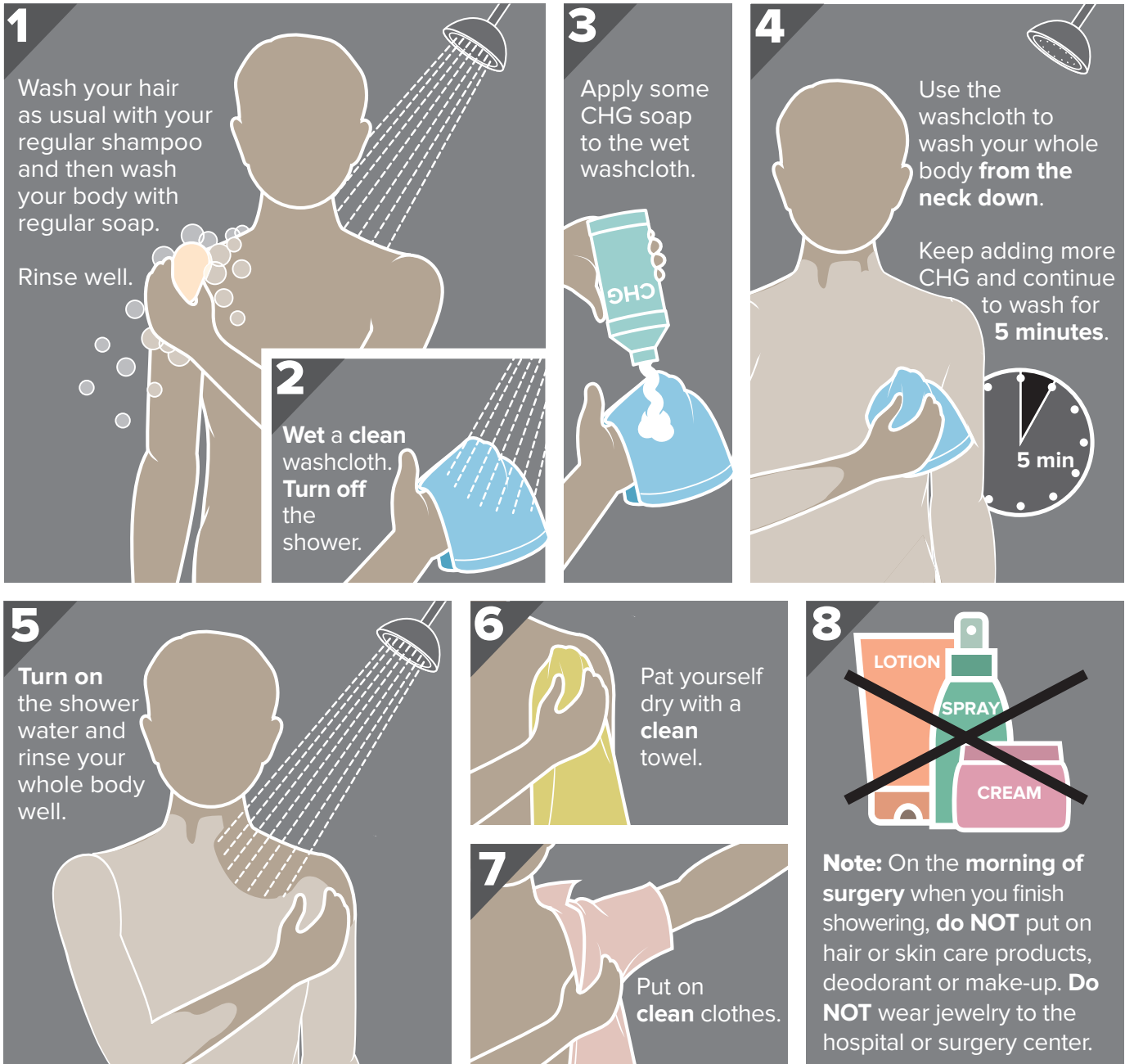
Please call your surgeon's office if you have any questions.

If you are not able to shower

If you do not have a shower or if you are not able to get into the shower, do a sponge bath with CHG soap instead.

1. First, bathe with a washcloth and regular soap. Rinse with clean water.
2. Wet a clean washcloth and apply 4 ounces (½ cup) of CHG soap to your whole body from the neck down for 5 minutes. Pay special attention to the part of the body where the surgery will be done.
3. Rinse well with another clean washcloth and plain water.
4. Pat yourself dry with a clean, dry towel.

Steps to shower with CHG soap



Having Surgery

Surgery arrival time

You will get a call a day or two before your surgery to tell you what time you should be at the hospital for your surgery. If your surgery is scheduled for a Monday, you may be called on Friday.

Arrive on time, so we can prepare you for surgery.

Pre-operative holding area/ambulatory surgery unit (ASU)

- When you arrive in the pre-op holding area or ASU, the nurse will talk to you and give you a gown to change into for surgery.
- Your clothes are put into a bag and placed in a locker for safe keeping.
- Your blood pressure, pulse, temperature, and breathing rate will be checked. Other blood tests may be done if needed.
- A needle will be used to place a small tube, called an IV catheter, into a vein to give you fluids before, during, and after surgery.
- The anesthesiologist will come in to talk to you and have you sign a consent form.
- Dentures or partial plates, contact lenses, eyeglasses, hearing aids, and anything not a normal part of your body should be removed before surgery. Nail polish, makeup, jewelry, and any hair clips must also be removed.
- You will be asked to write your initials on the skin over the knee that is to be replaced. This is part of our safety checks.
- Your hair will be covered with a paper hat.
- Your family will be allowed to stay with you in the pre-operative holding area or ASU. The nurse will tell your family where they can wait while you are in surgery.

Operating room

You will be taken into the operating room and all staff will wear gowns, caps, and masks. The room lights will be bright and the room will feel cool.

A nurse in the operating room will greet you and check your ID band. You will be asked some questions. A safety strap will be put over you, so you stay on the table. Staff will talk to you to let you know what they are going to do next.

You will be given medicine through your IV by anesthesiology to keep you pain free and asleep during your surgery.

Your surgeon will replace the knee, and then close the incisions. A dressing will cover the site.

The time for your surgery is an estimate. Your surgery may take a longer or shorter time than you and your family were told. Your family can check a board in the waiting area to see where you are. After surgery, the surgeon will talk with your family.

PACU

You will wake up in the Post Anesthesia Care Unit (PACU), also called recovery. The nurses will check your vital signs and your oxygen level as well as your incision site. X-rays will be taken. You may be in PACU for several hours before going to your hospital room.

Recovery After Surgery

Diet

- You will have a regular diet unless you are having nausea. Protein, calories, and fluids will help you heal and recover more quickly. Learn more about nutrition to recover from surgery at go.osu.edu/recovery_diet or scan QR code.



IV fluids and antibiotics

- You will receive fluids into your veins through the IV after surgery. The IV will be removed when you are ready for discharge.
- You can expect to receive antibiotics to prevent infection for the first day after surgery.
- You may be given antibiotics to take at home.

Incision care

- Your incision may be 6 to 10 inches in length on your knee, based on the method of surgery.
- Your incision may have staples, sutures, absorbable sutures, and/or glue.
- If you have sutures/staples, they will be removed in 2 to 3 weeks.
- Your incision will be covered with a dressing that is water resistant. We recommend leaving this on for 7 to 14 days.

Prevent blood clots

During and after surgery, your limited ability to walk and move around can cause your blood circulation to be sluggish or slow and blood clots can develop. To prevent blood clots, your treatment may include:

- Leg exercises to promote circulation.
- Compression wraps on your legs. The wraps attach to a small pump that pumps air in and out to increase the circulation in your legs.
- Medicine, called an anti-coagulant or blood thinner.

Bed exercises in the hospital

As soon as you are awake and able, start the 3 exercises you practiced before your surgery (as shown on page 13 of this book). Each of these exercises plays a role in your recovery.

- Ankle pumping
- Quad setting
- Gluteal sets

Do each exercise slowly. Repeat each exercise 10 times every hour when you are awake. If you need help, the nurse or therapist will go over the instructions with you.

Breathing exercises

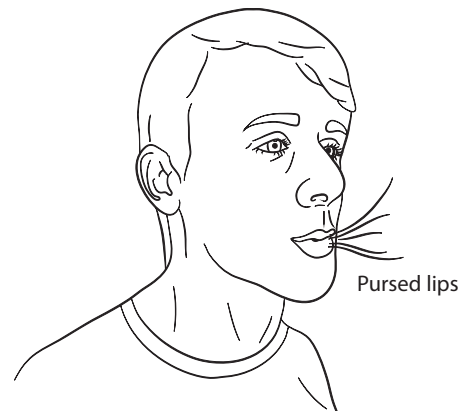
- Use your **breathing exerciser** 10 times and cough every hour, as directed.

or

- Do **deep breathing and coughing exercises** every hour to prevent pneumonia. Raise the head of the bed up as far as you can or sit up straight in a chair. Have tissues and a waste bag close.

Deep breathing:

- › Breathe in deeply through your nose and mouth. Your abdomen will rise as your lungs fill with air.
- › Hold the breath for a few seconds.
- › Purse your lips, like you were going to whistle. Let the air out.
- › Repeat the deep breathing 10 to 15 times and cough after each group of 5 breaths.



Coughing:

- › Open your mouth and take a deep breath in. Cough 1 or 2 strong coughs from deep in your lungs.
- › Cover your mouth with a tissue as you cough. Spit any mucus that you cough up into the tissue.



Home Care Instructions

Full recovery from your knee replacement surgery is going to take months. This information will help you understand your recovery and care at home. Precautions and exercises to protect and strengthen your new knee will help you be active in your care and recovery.

Using ice

Use ice to help reduce pain and swelling. It is best to use ice after exercise or if you have been very active.

- Be sure to use a layer of fabric between your skin and the ice.
- If you are using ice packs or gel ice packs, use the packs for 30 minutes every 1-2 hours.
- Check your skin often for signs of redness or swelling.
- Tell your care team if you experience:
 - Increased pain
 - Numbness or tingling
 - Redness that does not go away

Protect your new knee joint

Your new knee has limited strength and range of motion right after surgery. Follow these guidelines, so your knee can heal well and you can return to your normal activities.

Walking

- Your care team will teach you to use a walker or crutches when you walk until your knee heals. Comfort and safety are our number 1 priority.
- Your balance might be unsteady for a while. To help you stay steady:
 - Use handrails on steps.
 - Wear low-heeled or flat shoes that are firmly secured to your feet.
 - Avoid wet or waxed floors.
- **Do not kneel on your new knee.** Talk to your doctor or therapist about when you can kneel on a padded surface.
- Do not walk without your walker or crutches until your doctor or therapist tells you it is allowed. You may feel you can do without the aids, but healing is occurring and it takes time. Using the walker or crutches protects the healing joint.
- Walk on level ground and go outdoors if weather permits or choose a large indoor area like a shopping mall.

Sitting

- Use a firm, sturdy chair with armrests. Use a cushion or a pillow to raise you up, if needed.
- Avoid sitting longer than 30 minutes at a time. Get up often to walk, and change your position.
- During long car trips, stop every 30 minutes to get out of the car and move around. These breaks prevent stiffness and swelling, which could cause blood clots to form.

Climbing stairs

- During the first few weeks at home, limit climbing stairs to 1 round trip a day.
- Follow the directions for climbing stairs with your walker on pages 32 to 33 of this book.

Range of Motion

You need to be able to bend and fully straighten your knee after replacement surgery to be able to make a full recovery.

Bending:

- Your goal is to be able to bend your knee at 90 degrees or more by 2 weeks after surgery, unless your doctor or physical therapist has set a different goal for you.
- Do not use force to bend your knee for the first 2 weeks.

Straightening:

- Your goal is to be able to fully straighten your knee joint as soon as possible after knee replacement. You will need to be able to do this to avoid limping.
- Never use a pillow under your knee when you rest. Your leg needs to be flat on the bed to prevent your knee from getting stuck in a bent position.

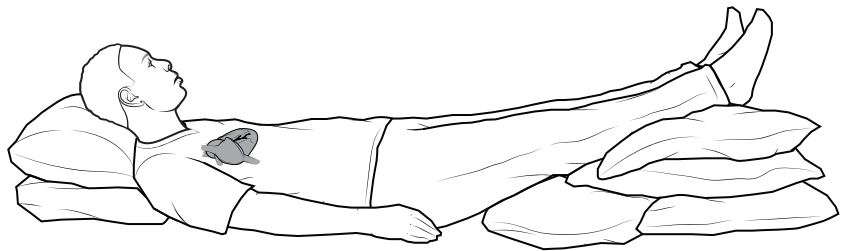
Swelling

Swelling, also called edema, is common after a knee replacement. You may have had some swelling in the hospital, or you may not notice it until you get home and are more active.

You may not have any swelling at all. The most common sites to have swelling are the foot, ankle, knee, or thigh of the surgery leg.

To help prevent swelling, **elevate your feet higher than your heart level while lying down.**

- Your toes should be higher than your nose. Do not place pillows under bent knees.
- Rest this way for 45 minutes to 60 minutes, 2 or 3 times each day.



If your swelling does not decrease after sleeping all night and elevating your legs during the day, call your doctor's office.

Preventing blood clots at home

- Do your exercises, including ankle pumps every hour.
- You may be given a prescription for an anticoagulant, also called a blood thinner, to prevent blood clots from forming. This medicine is usually taken for 5 weeks, but your doctor will decide how long you need to take it.
- **While you are on anticoagulant medicine, do not take more aspirin or products with aspirin than what you are told by your doctor.**

Exercises

Getting back your strength and motion after knee replacement depends on you. Sticking to your exercise program will speed up your return to your normal activities.

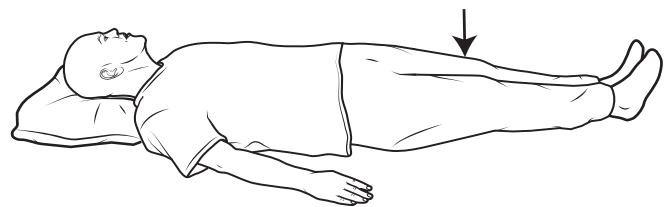
Do not wait until your therapist appointment to continue these exercises at home.

Instructions for doing your exercises

- Exercise 3 times each day. Repeat each exercise 10 to 15 times. Slowly increase how often you do the exercises as your knee becomes stronger.
- You may need help with these exercises at first. Have a family member come to the hospital to work with your and your therapist to learn how to help you when you go home.
- Place a plastic trash bag or a piece of cardboard under your operative leg to reduce friction if that is helpful to you.
- Do all exercises slowly with smooth motion.
- If a lot of swelling occurs, slow down to let the swelling go down.
- These exercises can also be done on your other leg.
- Remember to ice after exercise or heavy activity.

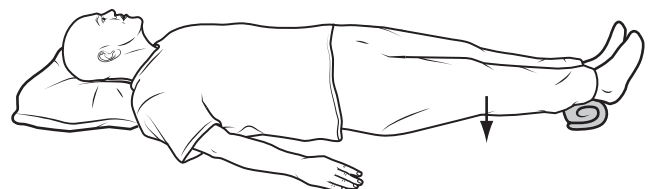
Quad sets

1. Sit or lie on a flat surface.
2. Tighten the muscles on the top or front of your thigh and flatten your knee onto the surface. To get the idea, have someone place a hand under your knee. Push your knee into the person's hand.
3. Hold for a count of 5 and then relax.



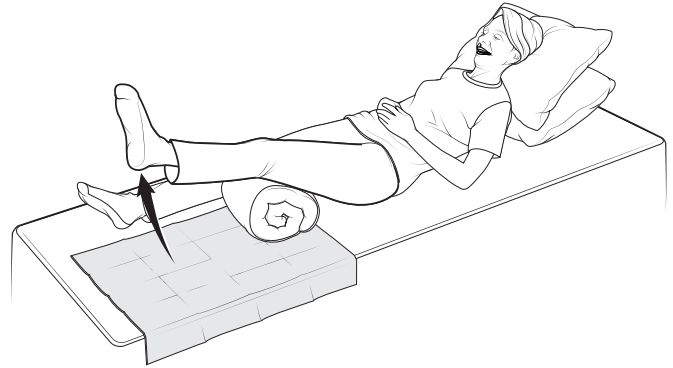
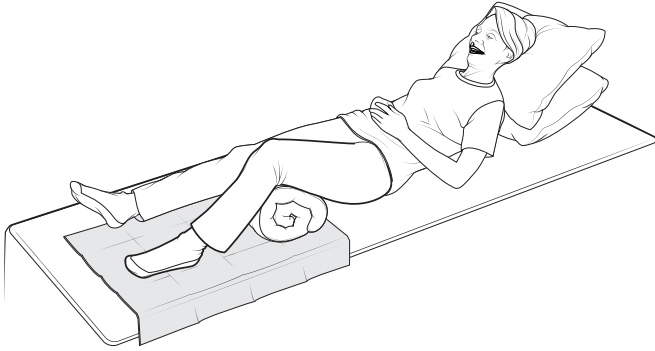
Quad setting and stretching

1. Place a 3 pound coffee can or blanket roll under your heel and tighten the top or front of your thigh.
2. Push down at your knee.
3. Hold tight for a slow count of 5, and then relax.



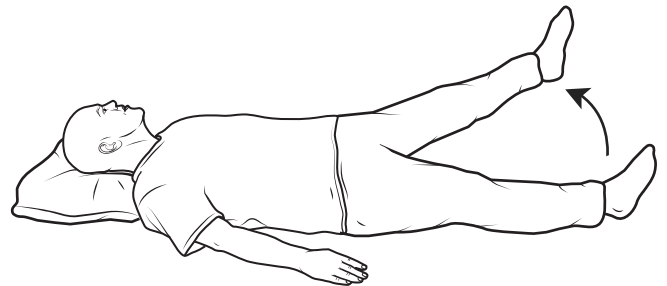
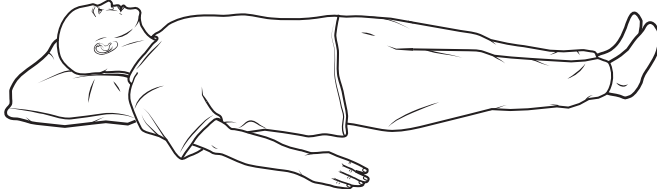
Short arc quads (blanket roll)

1. Place a blanket roll or 3 pound coffee can under the knee of your surgery leg.
2. Resting your thigh on the roll or can, lift your heel off of the bed, and straighten your knee as much as you can.
3. Pause and then lower your heel down to the starting position.



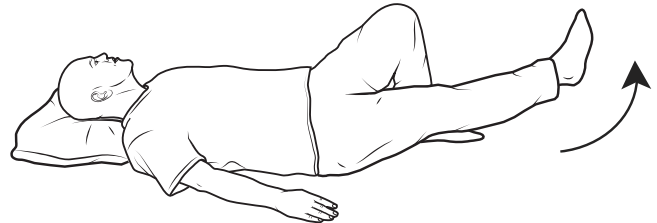
Leg to side (hip abduction and adduction)

1. Lie down on your back with your legs straight.
2. Keep your toes pointed toward the ceiling.
3. Slide your operative leg out to the side (like opening a pair of scissors).
4. Bring your leg back to the starting position.



Straight leg raises

1. Lie down on your back with your operative leg straight. Bend your good leg at the knee.
2. Lift your heel slowly off the bed. Raise your leg about 12 to 24 inches.
3. Slowly lower your leg to the bed, keeping your knee straight.



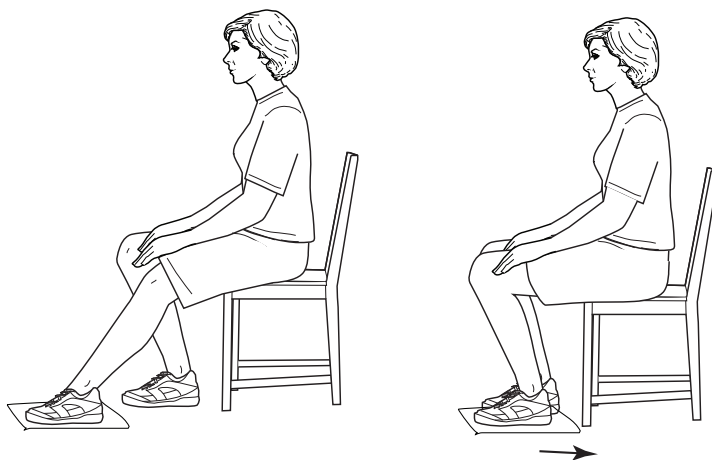
Knee extension

1. Sit on a chair or the side of the bed.
2. Lift your foot and straighten your knee.
3. Lower your foot back to the starting position.



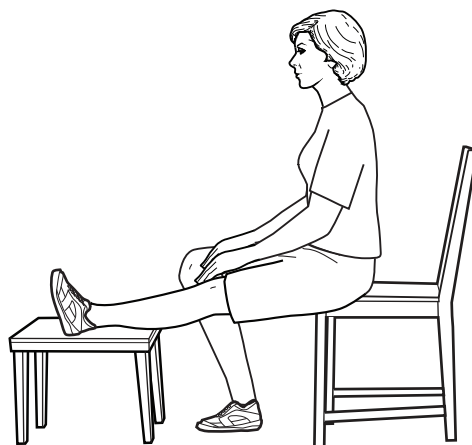
Foot slide

1. Sit in a chair and place your foot of the operative leg on a plastic bag on the floor.
2. Slide your foot back on the plastic, bending your knee as much as you can.
3. Hold for a slow count of 5, and then slide your foot forward gently.
4. Repeat and continue this exercise for 5 minutes.



Passive knee extension

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



Using Your Walker

Getting started

As you recover and heal from joint replacement surgery, your new joint needs to be protected while it is healing. Using a walker can help you move with less pain and more stability. A walker can help you be more independent and safe as you do your daily activities.

Be sure your walker fits you. When you stand up in your normal posture and relax your arms at your sides, the walker's hand grips should be level with your wrists. Then, when you rest your hands on the hand grips, your elbows should be slightly bent.

Standing with a walker

1. Slide your operative leg forward to the edge of the bed, chair, or toilet seat. Keep your operative leg outstretched and your good leg beneath you on the floor.
2. Use your arms to push down on the edge of the bed, chair arms, or toilet seat, and lift yourself up.



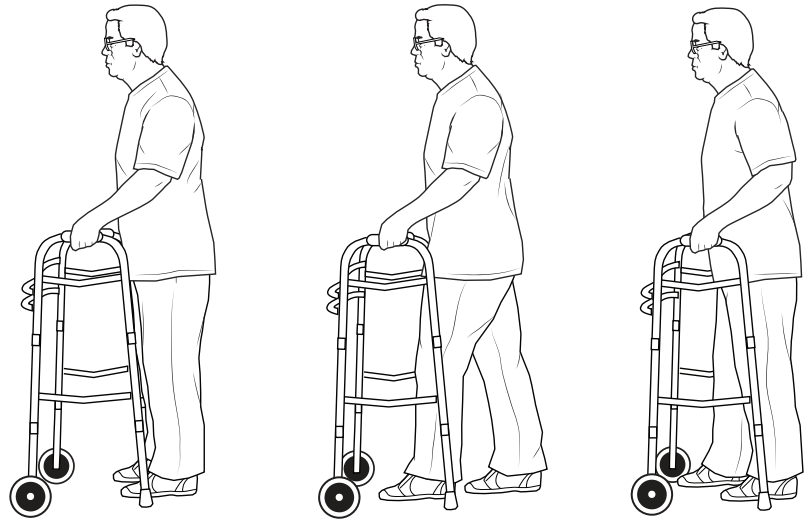
3. Shift your weight onto your good leg and move your hands to the hand grips of the walker. Bring your operative leg back as you fully straighten your good leg.
4. Do not pull yourself up with the walker because you may fall backwards.
5. Make sure you are steady and balanced before taking a step.



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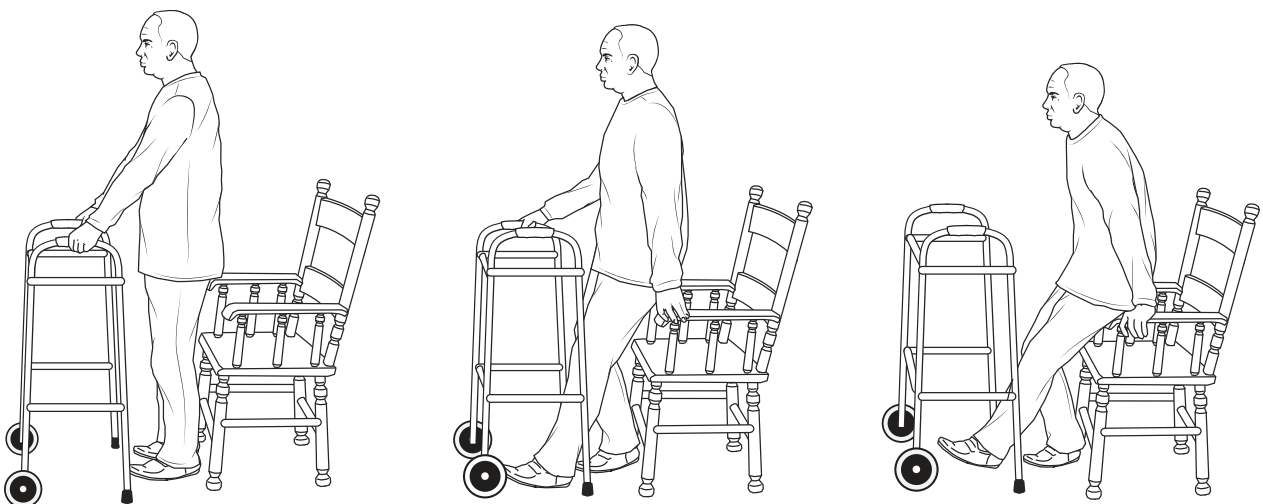
Walking with a walker

1. Lift the walker and place it at a comfortable distance in front of you with all of its legs on the floor. This distance is often equal to an arm's length.
2. Move your operative leg toward the walker first. Then take a step with your good leg, bringing it slightly ahead of the operative leg.
3. Do not take big steps that place you too close to the walker. There should be space between you and the walker at all times. If you are too close, you may lose your balance.
4. Hold your head up and look straight ahead. It is tempting to watch your feet, but more tiring, and you may run into something.
5. Be sure to walk slowly.



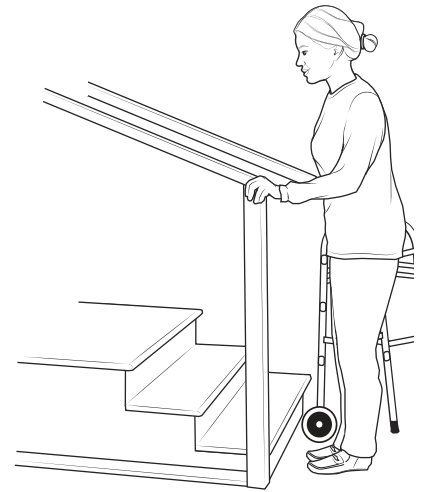
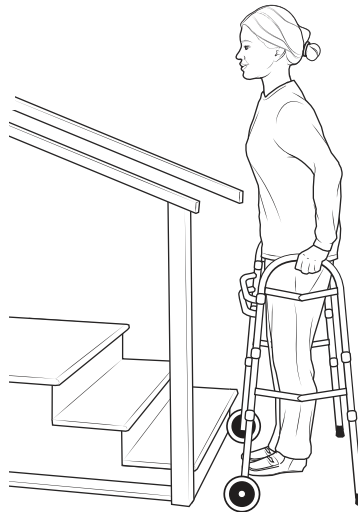
Sitting with a walker

1. Slowly back up to the chair, bed, or toilet until you feel it against the back of your legs.
2. Let go of the walker and reach back for the chair arm, bed, or toilet seat, while sliding your operative leg forward.
3. Slowly lower yourself onto the seat by leaning forward and keeping your operative leg outstretched in front of you. Go slowly, so you do not “plop” into the chair.

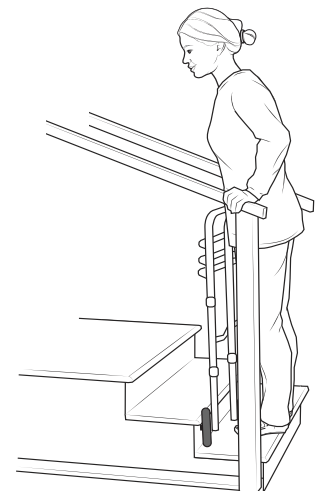
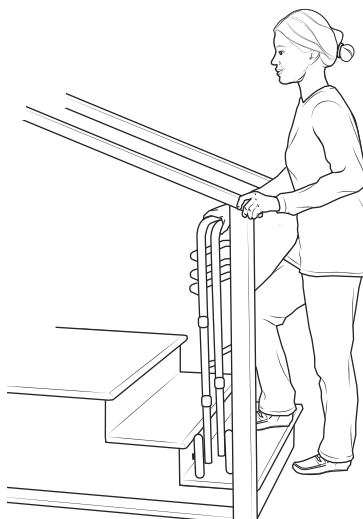


Going up stairs with a walker

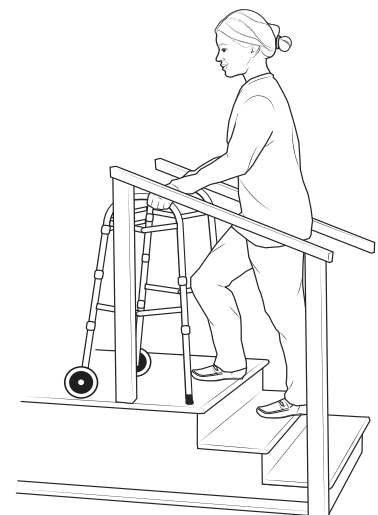
1. Always remember, when climbing stairs, start with your good leg going up, and start with your operative leg going down. **Up with the good! Down with the bad!** When going up and down stairs with a walker, you also should have a sturdy handrail.
2. Approach the stairs and place your feet about 6 inches from the first step.



3. Fold the walker and place it in one hand. Place the other hand on the rail.
4. Lift the folded walker and set it to the back of the step.

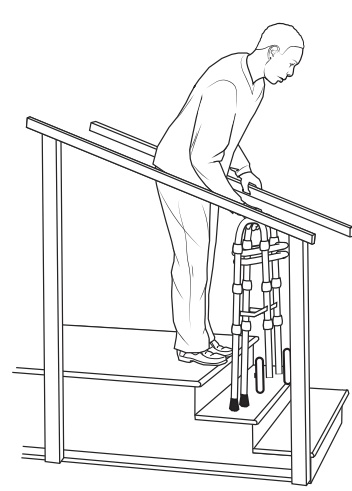
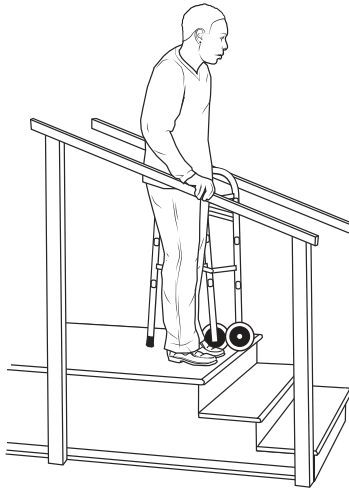
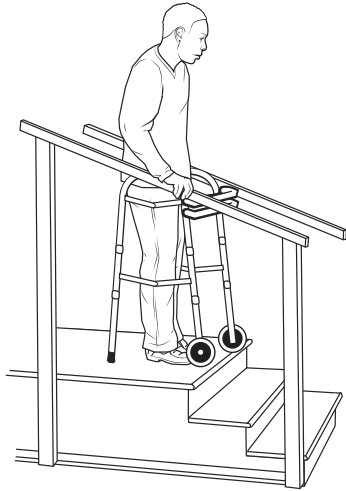


5. Step up first with your good leg, and then bring up your operative leg.
6. At the top of the stairs, unfold the walker and set it on the landing. Make sure that you hear the walker click into the locked position. Place both hands on the walker.
7. Step up first with your good leg, and then bring up your operative leg.

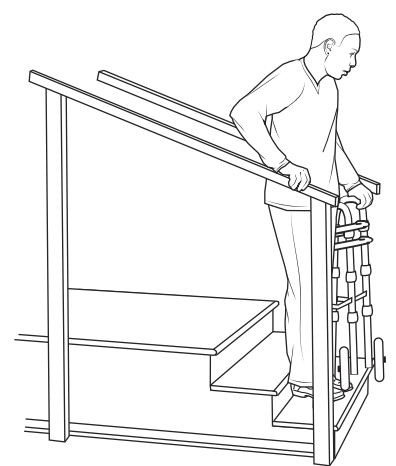
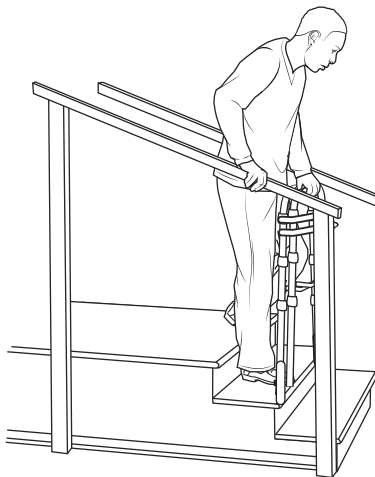


Going down stairs with a walker

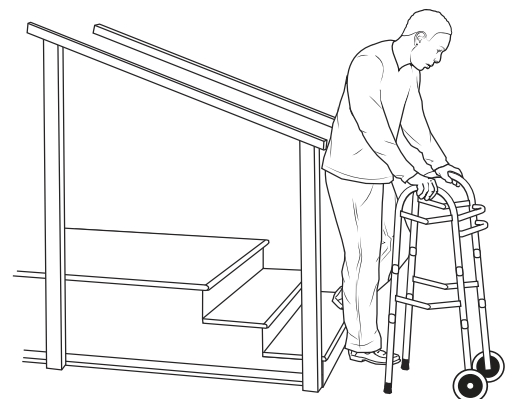
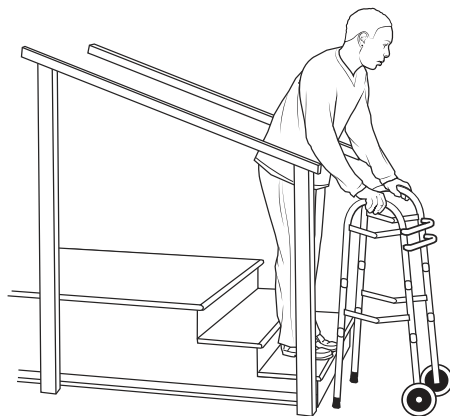
1. Approach the stairs and place your walker about 2 inches from the top step.
2. Fold the walker and place it in one hand. Place the other hand on the rail.
3. Set the folded walker down and to the front edge of the step.



4. Step down first with your operative leg, and then bring down your good leg.
5. At the bottom of the stairs, unfold the walker and set it on the landing. Make sure you hear the walker click into the locked position.



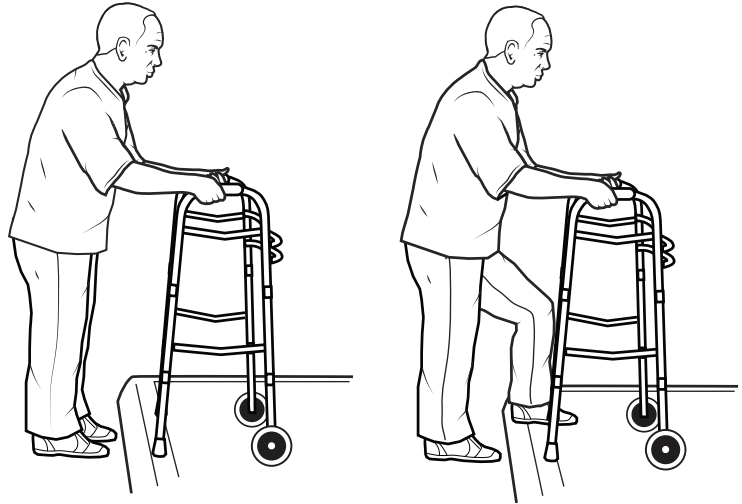
6. Place both hands on the walker. Step down first with your operative leg, and then with your good leg.



Going up and down curbs with a walker

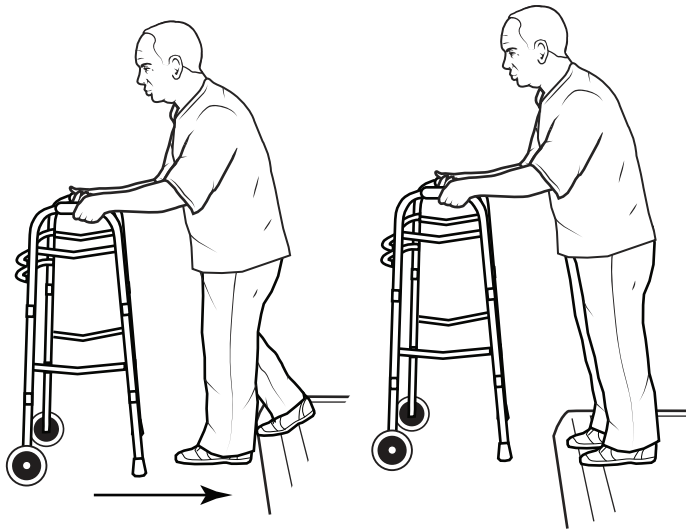
Going up a curb forward method

1. Walk straight up to the curb. Put all 4 legs of the walker up on the curb.
2. Push straight down on the walker when stepping up with your good leg.
3. Then step up with your operative leg.



Going up a curb: backward method

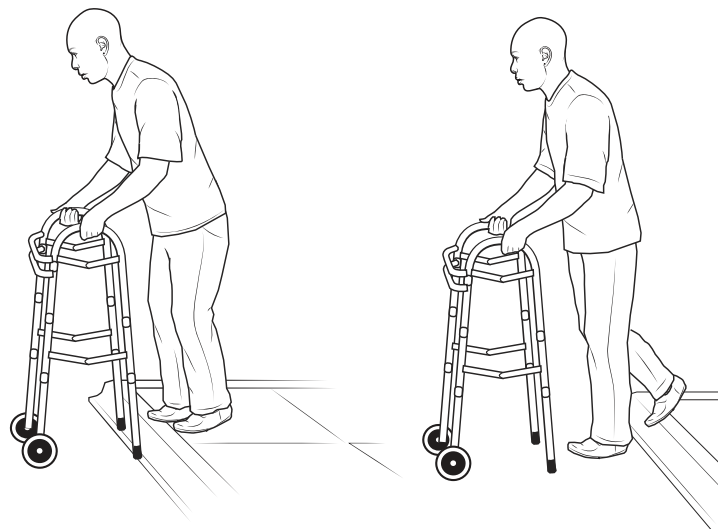
1. Walk up to the curb and turn so your back is to the curb.
2. Step up on the curb with your good leg. Then step up on the curb with your operative leg.
3. Lift the walker and put all 4 legs up on the curb. Turn back around carefully.



Going down a curb

1. Walk up to the edge of the curb. Put all 4 legs of the walker on the ground below.
2. Step down first with your operative leg, and then bring down your good leg.

Never go down a curb backwards.



Using Your Cane

A cane can help you walk after your knee replacement.

Using a walking aid can help you be more stable, safe, and independent in your daily activities. It can also reduce the stress on a painful joint or limb.

The length of the cane is important. Your elbow should have only a slight bend when you lean on the cane.

☐ Walking with a cane

1. Cane length should be adjusted, so when you are standing, the handle of the cane is at the level of your wrist.

2. Hold the cane on the side of your good leg unless directed otherwise by your physical therapist.

3. Begin by stepping forward with your operative leg and cane, keeping your leg and cane parallel to each other.

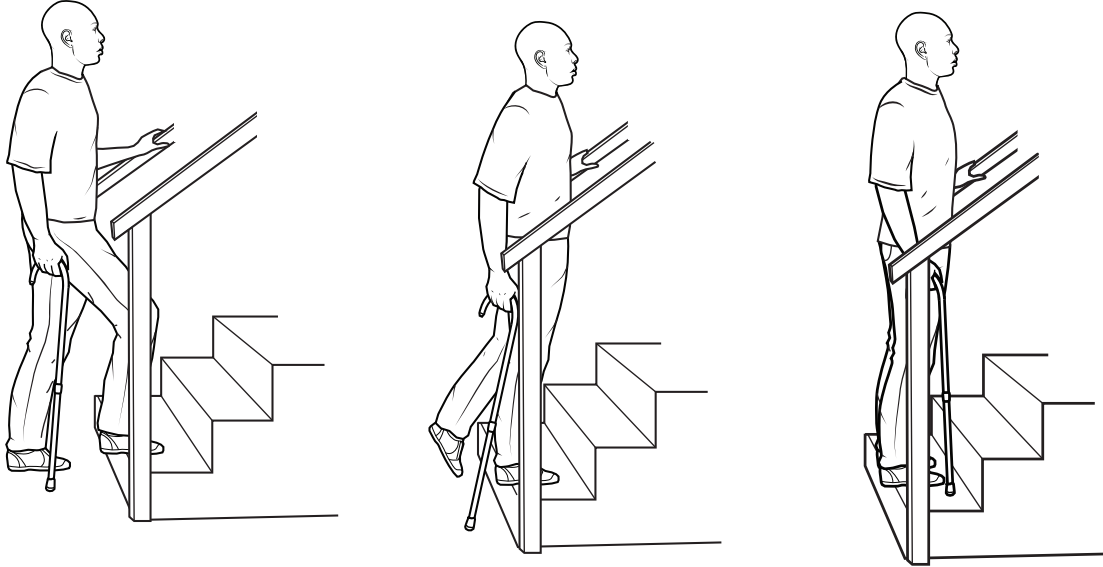
4. Next, step forward with your good leg, bringing it ahead of the operative leg and cane.



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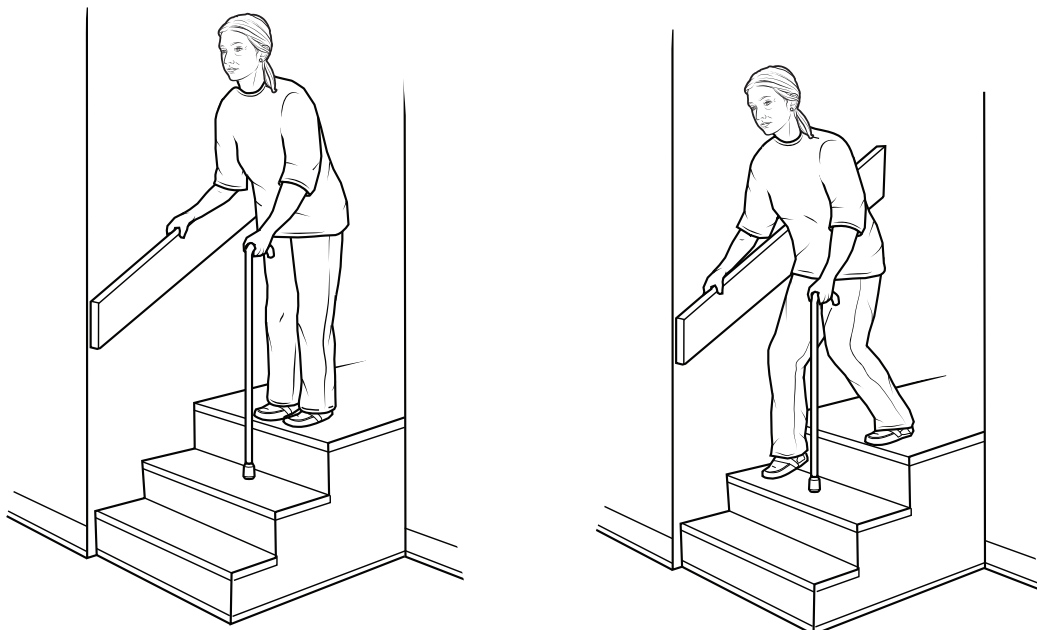
❑ Going up stairs with a cane

1. Grasp the hand rail with your free hand. Begin by raising your good leg up to the first step.
2. Then bring your operative leg and cane up together to the same step. Keep your leg and cane parallel to each other.



❑ Going down stairs with a cane

1. Approach the stairs and put your feet near the steps.
2. Place your cane on the first step down.
3. Place your operative leg on the first step down. Then bring your good leg to the same step.
4. Repeat the above steps until you are at the bottom of the stairs.



Using Equipment in Daily Activities

Getting in and out of bed

- You should get in and out of bed on the same side as you had surgery.
- A hospital bed may be needed at home. A member of your care team will talk with you about this if needed.
- Some people find it helpful to wear silky material pajamas to help them slide more easily on the sheets.
- You will need someone to lift and move your operative leg as you use your arms and your other leg to scoot yourself in and out of bed.

Using the toilet

- A raised toilet seat will keep you from bending too far when sitting or standing. The higher seat also makes it easier to stand up from the toilet.

Bathing

Do not sit down into a bathtub, pool, or hot tub for 6 to 12 weeks.

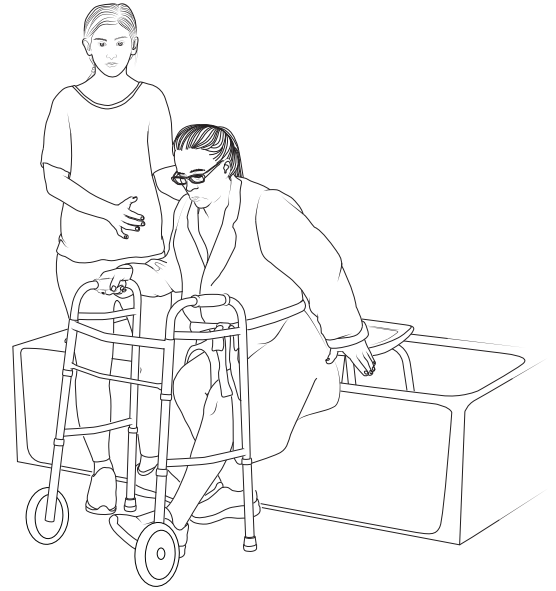
- Have someone help you the first time you bathe at home.
- You may sponge bathe at the sink until you are comfortable or have help to shower.
- If you have a walk-in shower or tub shower, you may stand and shower as long as you feel steady and balanced.
- If you need to sit to bathe, you will need a **shower bench**. Make sure the shower bench is placed firmly in the tub. Have someone adjust the height of the shower bench, so it is as tall as it can be to allow you to rest your feet on the floor of the tub when you are sitting.
- Always be sure to turn on the cold water first to avoid burning yourself.
- Have a secure place to put your soap to avoid dropping it. Try soap on a rope or a deep soap dish.
- For easier reaching, it may be helpful to use a long-handled sponge or bath brush, and a portable shower hose.



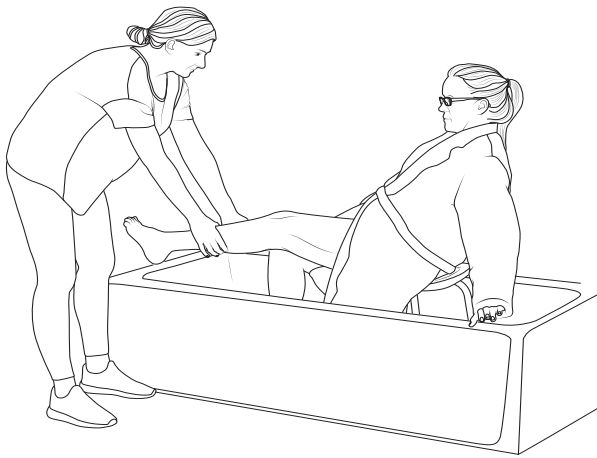
Using a shower bench



1. Place the shower bench firmly in the tub. Stand with your back toward the tub. Be sure you have someone with you to help you and to hold the bench steady, if needed.



2. Slowly lower yourself onto the shower bench, sliding your operative leg forward as you sit, reaching back to grasp the shower seat.

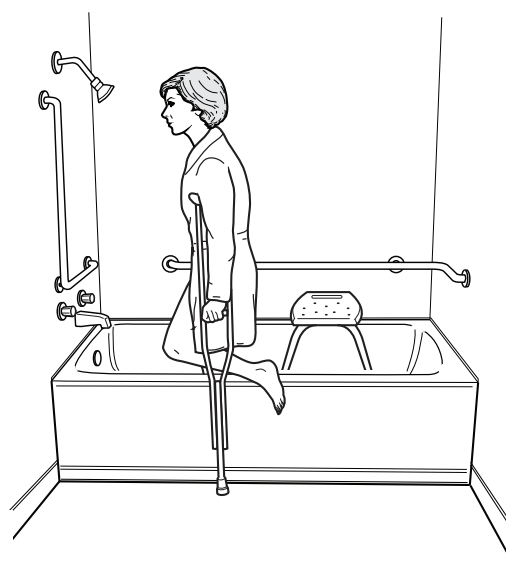
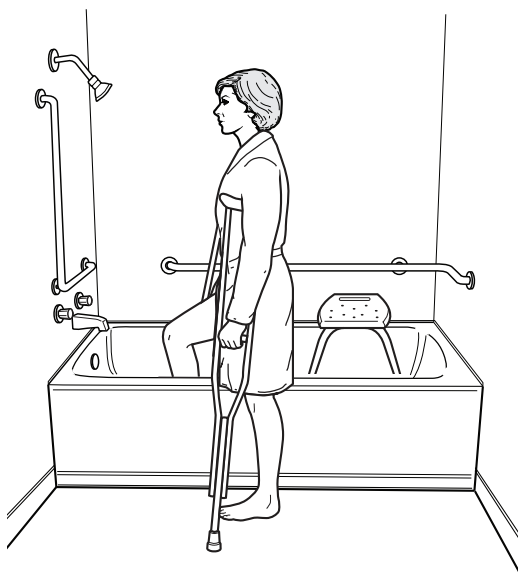


3. Lean your trunk back as someone helps lift your operative leg over the edge of the tub.
4. Slide back and make sure you are in a safe sitting position. Have your helper lower your foot to the floor of the tub.

To get out of the tub, have someone lift your operative leg out and place your feet flat on the floor before you stand.

Standing tub transfer

1. Place the shower bench in the tub in case you tire quickly and need to sit.
2. Stand with your good leg next to the tub.
3. Place your cane or crutches into the tub first, or use grab bars, if they are available.
4. Put your weight on the grab bar, cane, or crutch and step into the tub with your good leg. On the operative side, bend your knee back to step into the tub. Do not lift your knee up and over the tub because it will harm your knee.
5. Bring the other crutch into the tub. Be careful standing on the wet tub surface.



To get out, turn around and repeat the same procedure. Put the cane or crutch on the good side out first, and then the good leg. Then bring your operative leg out, and put the crutch on the operative side.

Getting into a car

Know how to safely get into the car. It is better to ride in a mid-size or large car with regular bench seats rather than bucket seats. **Use a thick pillow or cushion on the seat.**

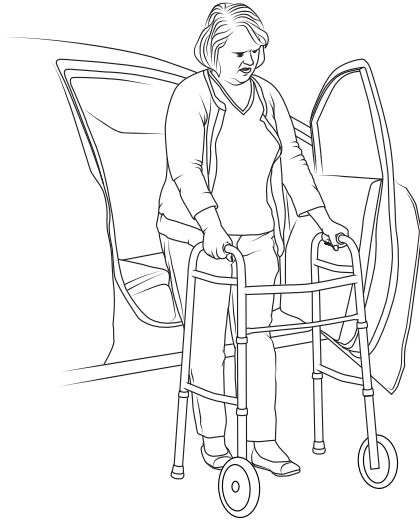
- Make sure you stop about every 60 minutes to get out and walk around, or at least shift your weight from one leg to another.
- The best choice after a knee replacement is to ride in the back seat.
 - › **Right knee** replaced: Get in on the **passenger's side** back seat.
 - › **Left knee** replaced: Get in on the **driver's side** back seat.

To get into the back seat:

1. First lower your bottom onto the cushion on the seat in a semi-reclining position.
2. Have someone support your operative leg as you use your other leg to scoot yourself farther back across the seat. You may want to have a pillow to put behind your back to lean on.
3. Rest your operative leg against the seat back. Be sure to wear your seat belt.



To get into the front seat:

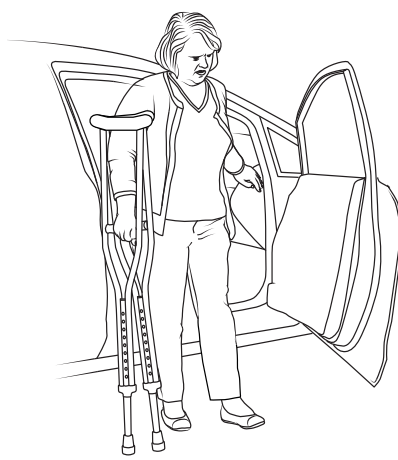
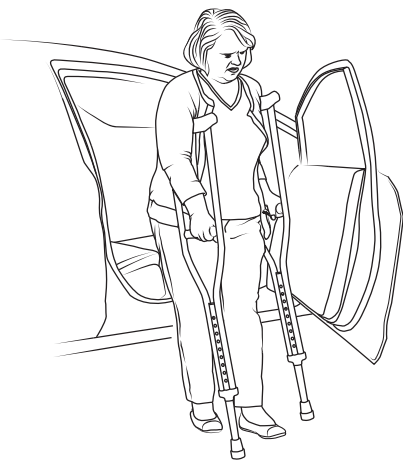


1. Enter the car on the passenger side and make sure the seat is as far back as possible. Recline the seat back as much as you can, so you can scoot up the back of the seat. Stand with your back toward the car.
2. Put your operative leg out ahead of you and slowly sit. If needed, have someone lift your operative leg into the car as you scoot up the seat back.
3. When your operative leg is on the floor of the car, scoot back down to the seat and adjust the seat back up a small amount. Be sure to wear your seat belt.

To get out of the car:

Recline the seat back. You will need to scoot back up the seat back while someone lifts your operative leg out of the car and onto the ground.

If you are using crutches:



1. Back up to the passenger seat.
2. Put both crutches on your good leg side and reach back with the other hand to hold the dash, car frame, or seat.
3. Then slowly sit and have someone help you lift your operative leg as you scoot up the seat.

Returning to Daily Activity

Recommended activities

Exercises taught by your physical therapist and walking are good activities to start. Your exercises will be advanced as your new joint heals.

Do not participate in sports until you have your doctor's approval. Talk to your doctor about sports you may be interested in.

Do not use exercise equipment, whirlpools, or spas until approved by your doctor. Talk to your doctor about weight lifting with your operative leg.

Water walking

When your doctor feels that your incision is well healed, often 6 weeks after surgery, water walking may be recommended. Do not walk in water until you have your doctor's permission.

If you have access to a pool, water walking can be relaxing and strengthens the muscles in your knees, hips, and legs. Enter the pool to chest high water. Hold onto the side of the pool and walk for 15 to 20 minutes. Repeat 3 to 5 days each week.

Activities to avoid

Your new knee joint can be damaged or worn out by rough treatment. Exercise to keep your muscles and ligaments strong.

Some activities may cause more stress to the knee joint and should be avoided, including:

- Jogging or running
- Contact sports
- Racket sports
- Pushing weights with your legs
- Lifting objects weighing over 35 pounds

Driving and riding in a car

- Do not drive until instructed by your doctor. Most patients can return to driving 4 to 6 weeks after surgery.
- If you are riding in a car, stop and get out to walk and stretch every 1 to 2 hours.
- Do ankle pumping exercises while you are riding in the car to keep blood flowing in your legs.
- You may drive in about 6 weeks with your doctor's permission. Only drive if you have complete control of your surgery leg and you are no longer on pain medicine.

Air travel

For the first year after your knee replacement, use these precautions to protect your knee and reduce the risk of problems:

- Most patients do not fly for at least 6 weeks after surgery.
- When booking your flight, tell them you have a knee joint replacement and request a bulkhead seat, so you have more room to stretch out your leg.
- Your knee replacement contains metal and will set off the metal detector. Be sure to tell the officers at the security check that you have a knee joint in place.
- Stand often when possible and do your ankle pumping exercises during the flight.

Resuming sex

Most often, it is safe for you to resume sexual activity after 4 to 6 weeks of healing. The skin and muscles of the knee need that time to heal. Having the joint replacement often eases a lot of the pain and stiffness that may have made sex uncomfortable before surgery.

- The skin and muscles of the knee need about 4 to 6 weeks to heal.
- Talk to your partner about your comfort, concerns, and anxieties.

Dental care

Dental health is important, but because you have a joint replacement, you need to take extra caution. The bacteria that cause infections in your mouth, gums, and teeth can easily travel in your blood stream and settle in your replaced knee. You do not want that to happen.

We recommend dental antibiotics for the first year after your joint replacement to prevent serious infection.

Please contact your surgeon's office at least **1 week** before your dental appointment to get your prescription.

Antibiotics may be recommended for you to take before:

- Teeth removal
- Gum disease procedures
- Placement of orthodontic bands
- Root canal surgery
- Anesthetic injections into gums near jaw
- Teeth cleaning where bleeding may occur
- Dental implants or teeth that are knocked out and are replaced

We do not recommend elective dental work or surgery for 8 to 12 weeks after your knee surgery.

Call 614-293-2663 if you have any of these signs

As your knee incision heals, check it every day. Report any of these signs right away:

- Redness, swelling, or drainage from the incision site
- Fever of 101 degrees F (38°C) or more
- Edges of the wound start to separate
- Leg turns pale or blue in color
- Tingling or numbness in the leg
- Leg pain
- Coldness of the leg

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There is a small red tab at the top left corner. The paper appears to be part of a notebook or binder.



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