

MEMORIAL HEALTH SYSTEM

Patient Education Notebook
Total Knee Replacement



Helping to Guide You Through Your Care

1. A Letter From Your Surgical Team

2. General Information

- *Pre-Operative Instructions for Knees*
- *Acceptable Pain Level*
- *Instructions for Using a Walker/Cane*
- *Making Safe Transfers*
- *Using Adaptive Equipment Properly*

3. Total Knee Replacement Guide

- *What to Expect*
- *Home Instructions - Total Knee Arthroplasty*

4. Notes

- *Important Numbers*



MEMORIAL
HEALTH SYSTEM

Dear Patient,

Athens Surgical Services offers a very beneficial resource to patients who are planning to undergo surgery. During your pre-admission testing visit, you will be asked to attend an educational session discussing your next steps, from pre- to post-recovery. You are in control of your recovery and will need to be able to make informed decisions about your pain medication, physical therapy, and discharge arrangements. We also invite and encourage your family members and/or caregivers to attend this educational program with you. After all, they will play an active role in your recovery process.

This program will offer the opportunity for discussion and time for your questions to be answered before the day of your surgery. You will learn what you need to know and do before your surgery, general information about your type of knee surgery, and what you can expect each day after your surgery as well as long-term recovery information.

Past participants in this program say they were more relaxed when the day of their surgery arrived, were more comfortable with the procedure, and were aware of the daily expectations of their recovery process. The participants in this educational program generally have a quicker and smoother rehabilitation period because they are informed and know what to expect.

Our role as your orthopedic patient care navigator is to assist you in your musculoskeletal health care by promoting excellence in orthopedic education before, during, and after your surgery experience.

We look forward to meeting you during your upcoming educational session. If you have any questions, please don't hesitate to ask.

Thank you,
Your surgical team



Pre-Operative Instructions for Knees

Physical/Occupational Therapy

Physical and occupational therapy is essential for you to achieve success in your healing process. Listed below are key tips to follow to help you better understand expectations:

- As soon as possible, begin performing the exercises given to you in your packet
- If you perform these before your surgery, it will help you to maintain the strength you have and you will regain your mobility faster
- You will be escorted by staff to physical therapy after surgery in order to be evaluated, and then taught proper body mechanics

Nursing is available to assist you to and from the bathroom and in and out of bed while at the center. You will need a responsible adult to help you at home for the first few days.

We are pleased that you have chosen Athens Surgical Services for your surgery. We will do all we can to make your experience as pleasurable and smooth as possible. We look forward to working with you!

Therapy Staff



Acceptable Pain Level

Our goal is your comfort

At Athens Surgical Services, our team members want to make you as comfortable as possible and help you get well faster. We can help you reach these goals through an individualized pain management plan.



0

No hurt



1-2

Hurts a little bit



3-4

Hurts a little more



5-6

Hurts even more



7-8

Hurts a whole lot



9-10

Hurts worst

According to the above scale; I acknowledge that my acceptable level of pain is a ____ to ____.

How can you help?

To get the best results, you can work with our providers to choose the method of pain management that works best for you.

Talk to us

Review what to expect regarding pain and the management of it.

For example, discuss any concerns you may have about taking pain medication(s).

Give a "measure" of your pain

Our providers will ask you to rate your pain frequently. If they do not ask and you are having pain, tell them about your pain and request comfort measures whenever you are uncomfortable. It is most helpful to use a pain rating scale when stating your pain. The measurement used most often at Athens Surgical Services is the scale you see above.

Alternative treatment for pain

There are also treatments that do not use medicine that can help you with pain control.

For example, the use of cold packs, massages, relaxation breathing, and focusing on other activities can help lessen pain. You can discuss these options and how they may help you with your provider.



Instructions for Using a Walker

Follow the steps below when you walk with a walker

Step 1: Roll the walker and place it at a comfortable distance in front of you with all four of its legs on the floor. The distance is often equal to an arm's length.

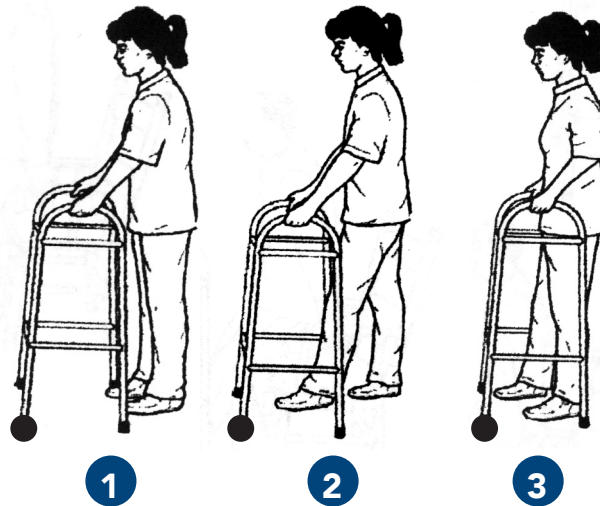
Step 2: Move your injured or weak leg toward the walker first. If you have had surgery on both legs, use either leg to begin walking.

Step 3: Following your first step, take a step with your good leg, bringing it ahead of the injured or weak leg.

Step 4: Repeat steps 1-3.

Safety Tips

- Do not step too close to the walker because you may lose your balance—there should be space between you and the walker at all times
- Hold your head up and look straight ahead. Do not watch your feet—it is more tiring and you may run into something
- Walk slowly



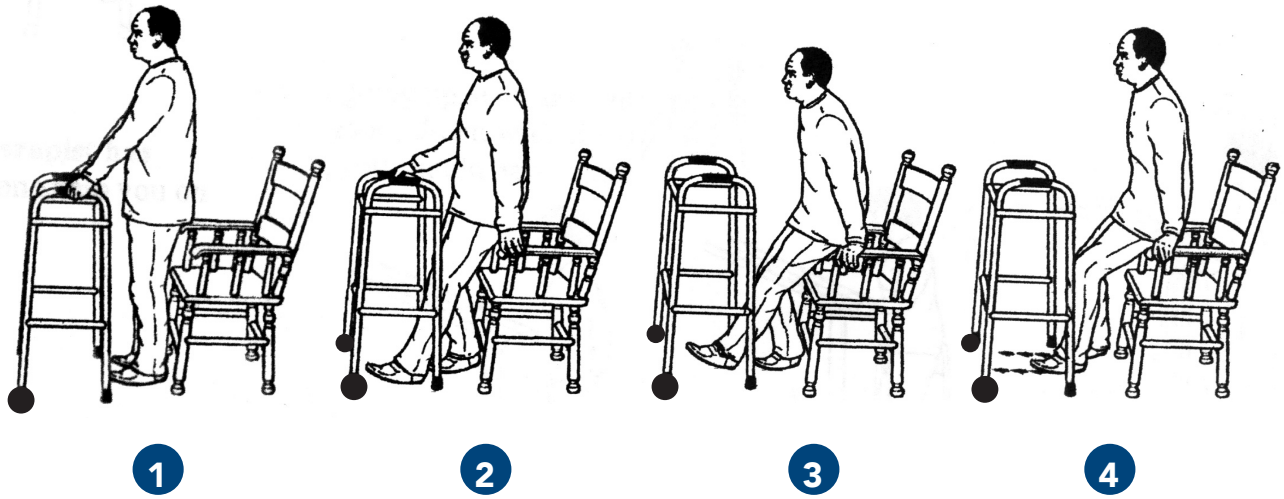
Sitting with a walker

Step 1: Slowly back up to the chair, bed, or toilet until you feel it against the back of your legs.

Step 2: Let go of the walker with one hand and reach back for the bed, chair arms, or toilet seat, while sliding your injured or weak leg forward.

Step 3: Slowly lower yourself to the seat by leaning forward and keeping your injured or weak leg straight out in front of you. Go slowly so that you do not land heavy in the chair.

Step 4: If you have had surgery on both legs, place both hands on the chair arms, bed, or toilet seat. Lower yourself to the seat and slowly walk both legs forward. Do not land heavy in the chair.



Stairs

Do not use your walker on stairs unless your physical therapist has instructed you to and has practiced this with you. Have someone help you on the stairs until you feel comfortable using your walker.

Going up stairs with a walker

When climbing stairs, start with your good leg going up, and start with your injured or weak leg going down. Up with the good, down with the bad. When going up and down stairs with a walker, you should have a sturdy handrail.

Step 1: Walk up to the stairs and place your feet about six inches from the first step.

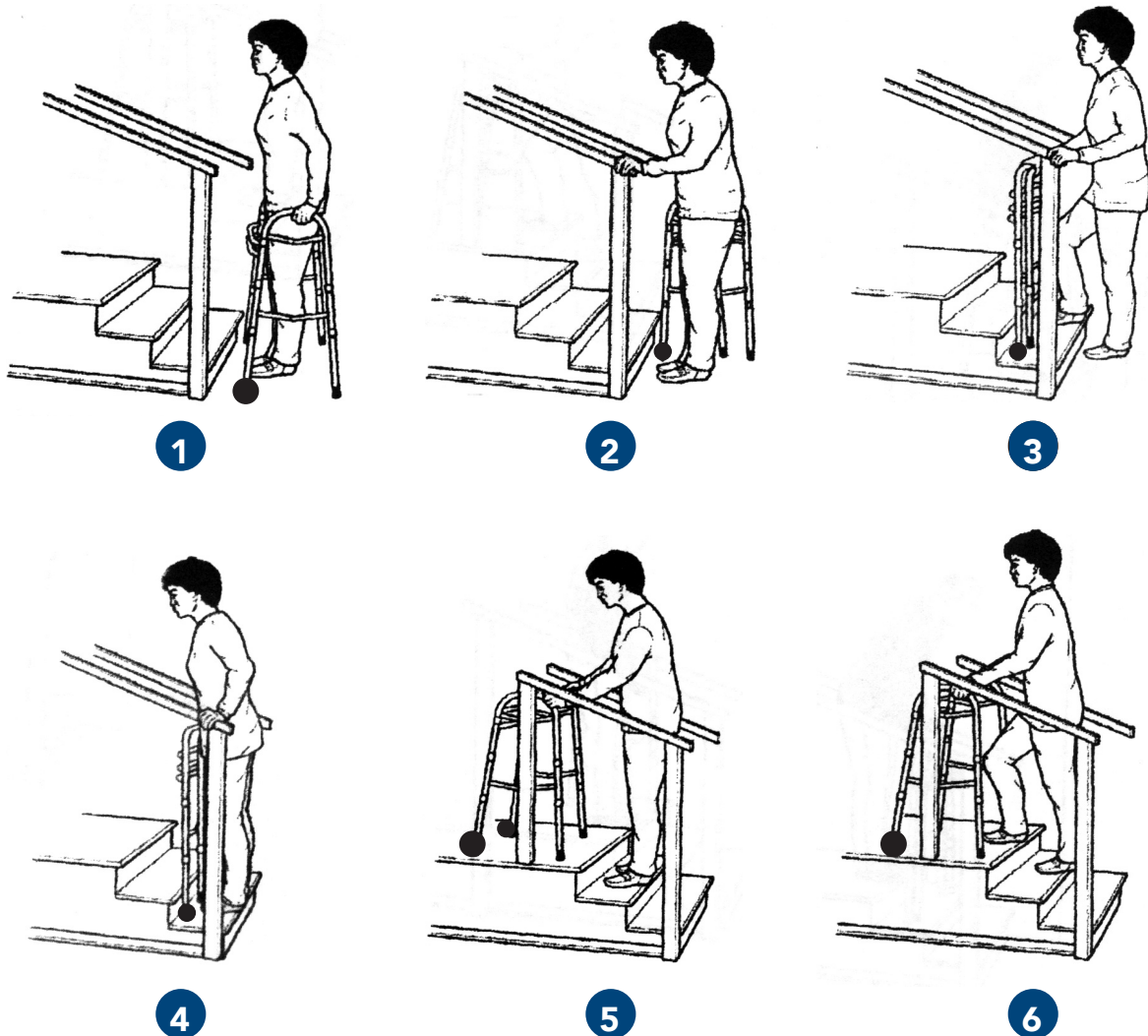
Step 2: Fold the walker and place it in one hand. Place your other hand on the rail.

Step 3: Lift the folded walker and set it to the back of the step. Step up first with your good leg.

Step 4: Bring up your injured or weak leg.

Step 5: At the top of the stairs, unfold the walker and set it on the landing. Make sure you hear the walker click into the locked position. Place both hands on the walker.

Step 6: Step up first with your good leg, and then bring up your injured or weak leg.



Going down stairs with a walker

Step 1: Walk up to the stairs and place your walker about two inches from the top step.

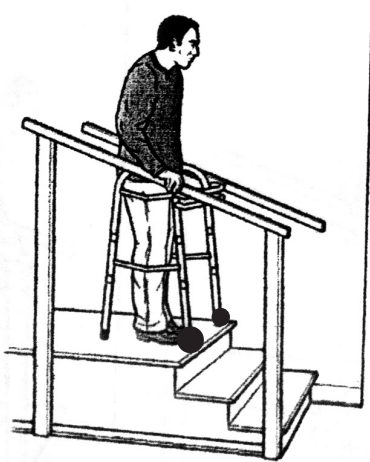
Step 2: Fold the walker and place it in one hand. Place your other hand on the rail.

Step 3: Set the folded walker down and near the front edge of the first step.

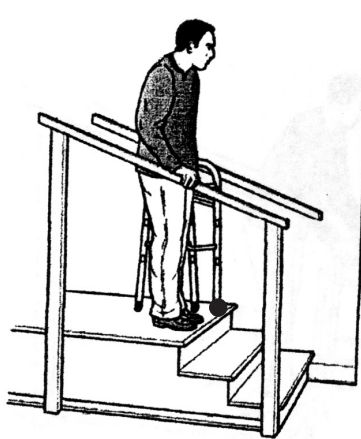
Step 4: Step down first with your injured or weak leg, and then bring down your good leg.

Step 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.

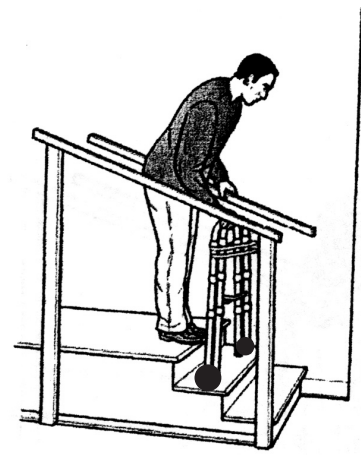
Step 6: Place both hands on the walker. Step down first with your injured or weak leg and then with your good leg.



1



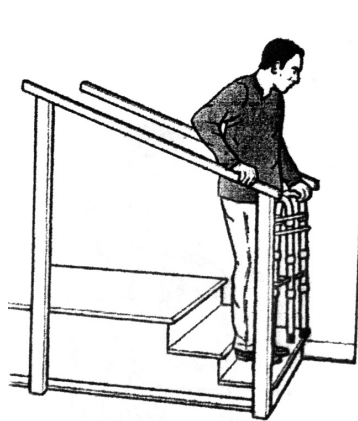
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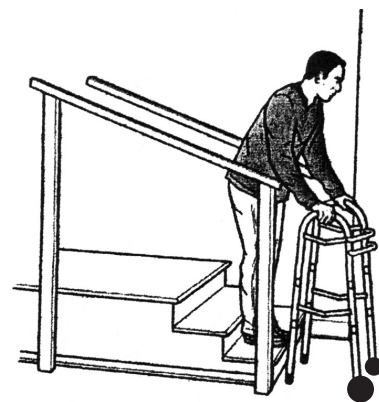
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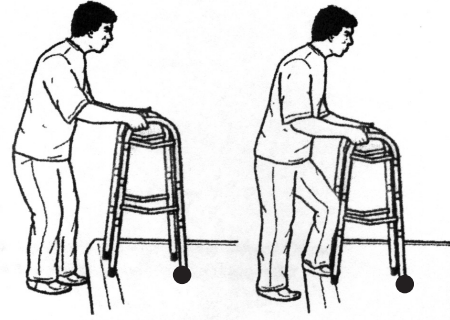


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Going up a curb with a walker

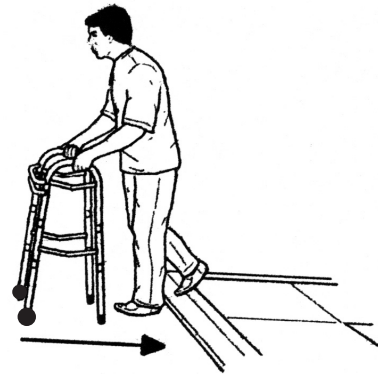
Forward method

- Step 1:** Walk up to the curb.
- Step 2:** Put all four legs of the walker up on the curb.
- Step 3:** Push straight down on the walker when stepping up with the good leg.
- Step 4:** Step up with the injured or weak leg.



Backward method

- Step 1:** Walk up to the curb and turn so your back is to the curb.
- Step 2:** Step up on the curb with your good leg.
- Step 3:** Step up on the curb with your injured or weak leg.
- Step 4:** Lift the walker and put all four legs up on the curb.
- Step 5:** Turn back around carefully.



Going down a curb with a walker

Never go down a curb backwards.

- Step 1:** Walk up to the edge of the curb.
- Step 2:** Put all four legs of the walker on the ground below.
- Step 3:** Step down with your injured or weak leg, then your good leg.



Talk to your doctor, nurse, or physical therapist if you have any questions or concerns.



Instructions for Using a Cane

Follow the steps below when you walk with a cane

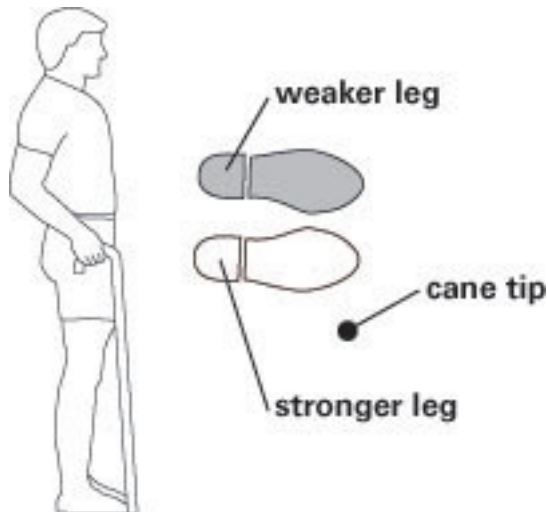
Step 1: Hold the cane in the hand opposite your injured or weaker leg.

Step 2: Move the cane and step with your weaker leg at the same time. Keep the cane close to your body for support and balance.

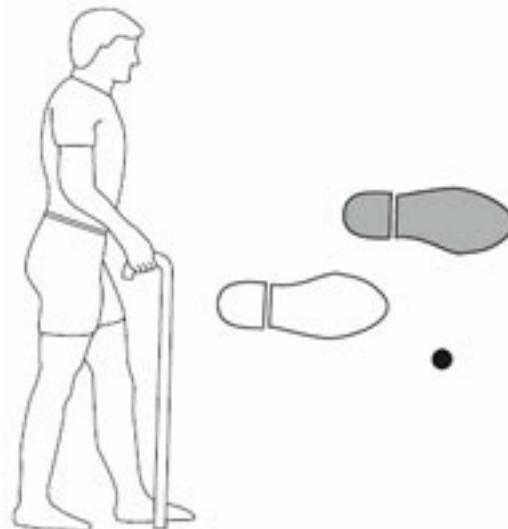
Step 3: Support your weight on your cane and your weaker leg. Step up to (or through) with the uninjured or stronger leg.

Step 4: Continue to repeat steps 1-3.

Step 1



Step 3



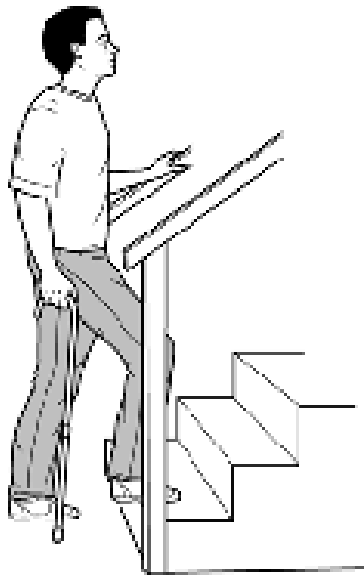
Going up stairs with a cane

Take your time and go slowly. Have someone stand behind you to help the first time.

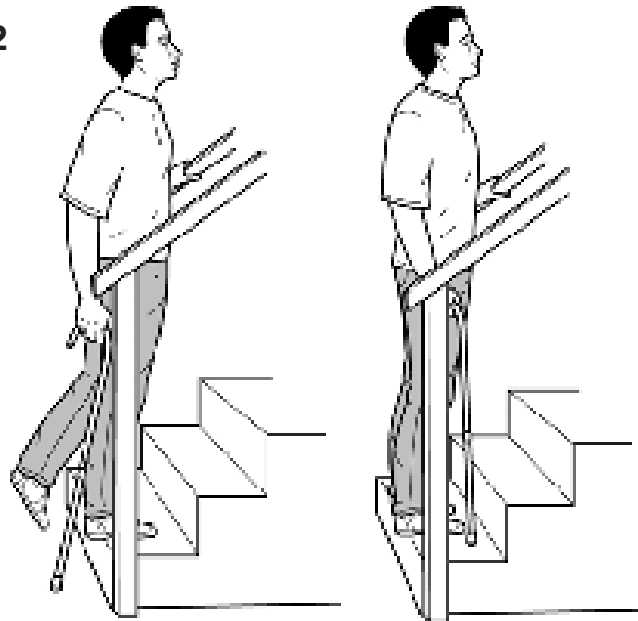
Step 1: Grasp the handrail with your free hand. Begin by raising your good leg up to the first step.

Step 2: Bring your injured or weak leg and cane together up to the same step. Keep your leg and cane in line with each other.

Step 1



Step 2



Going down stairs with a cane

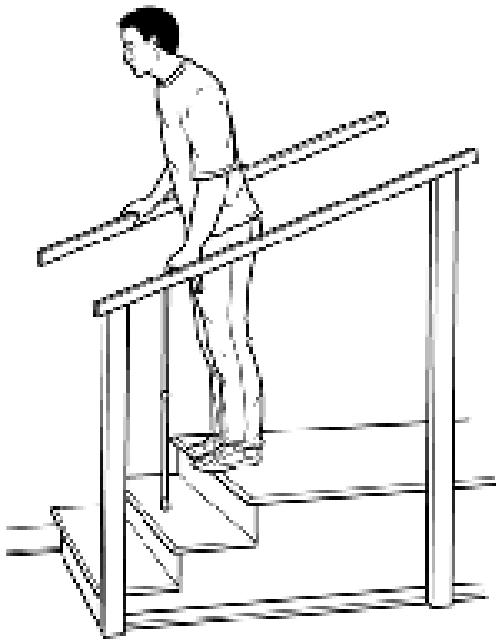
Take your time and go slowly. Have someone stand behind you to help the first time.

Step 1: Put your feet near the steps and place your cane on the first step down.

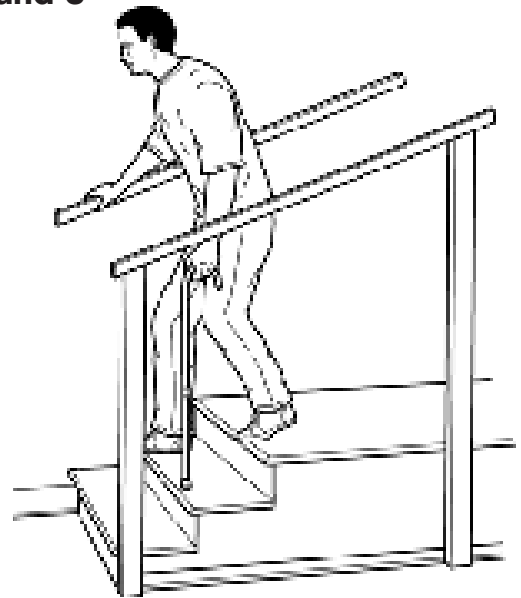
Step 2: Step down first with your injured or weak leg. Bring your good leg to the same step.

Step 3: Repeat until you are at the bottom of the stairs.

Step 1



Step 2 and 3



Tips: Below are helpful tips for walking safely with a cane.

- **Do NOT** take a step unless your cane is firmly on the ground
- **Do NOT** place your cane too far forward—your cane should be directly across from the instep of your weaker foot
- **Do NOT** take steps that are too big
- When turning, take small steps and do not pivot
- Check your cane tip regularly and replace it when it is worn—you can buy new tips from a drug store or durable medical supply company
- Be careful when you walk on uneven or wet surfaces
- Use good posture when walking
- If you use a cane for balance reasons only, you can hold it in either hand



Making Safe Transfers

Bed transfer

Remember: Use a firm bed. Avoid a low bed.

Getting into bed:

- Step 1:** Back up to the bed until you feel it behind your legs. Place yourself halfway between the foot and head of the bed. Slide your affected leg out in front of you before sitting down.
- Step 2:** Reach back with both hands and sit down on the edge of the bed. Scoot back toward the center of the mattress. Slick sheets, slick pajamas, or sitting on a plastic bag may make scooting easier.
- Step 3:** Move the walker out of your way. Keep it close by.
- Step 4:** Scoot your hips around to face the foot of the bed.
- Step 5:** Lift the close leg into bed while scooting around.
- Step 6:** Lift the other leg into bed.
- Step 7:** Scoot your hips toward the center of the bed.



Getting out of bed:

- Step 1:** Move your hips to the edge of the bed while leaning on your elbows.
- Step 2:** Sit up while lowering your unaffected leg to the floor.
- Step 3:** Scoot to the edge of the bed while using your hands behind you.
- Step 4:** Slide the affected leg out in front of you before standing up.
- Step 5:** Use both hands to push off from the bed.
- Step 6:** Get balanced before reaching for the walker.

Chairs and toilets

Sit in chairs with firm seats for ease of movement. An extra cushion or pillow may be needed on the seat of a low chair if there is no other choice for sitting. It's safer to keep both feet on the floor or on a stool.

A raised toilet seat, a three-in-one bedside commode, or toilet safety rails may be needed over your toilet for about 12 weeks after surgery.

Such equipment is no longer needed once you can get up and down from the toilet safely on your own.

Sitting on a chair or toilet:

Step 1: Take small steps and turn until your legs are against the toilet/chair.

Step 2: Slide the affected leg out in front of you before sitting down.

Step 3: When using a commode with armrests, reach back for both armrests and lower yourself onto the toilet. If using a raised toilet seat without armrests, keep one hand on the middle of the walker/crutch/cane while reaching back for the toilet seat with the other hand.



Getting up from a chair or toilet:

Step 1: Slide the affected leg out in front of you before standing up.

Step 2: When using a commode with armrests, push yourself up from the armrests. If using a raised toilet seat without armrests, keep one hand on the middle of the walker/crutch/cane and push off from the toilet seat with the other hand.

Step 3: Gain your balance and place your hands on the walker.

Tubs and Showers

You cannot get down into a tub until your surgeon tells you otherwise. You can safely sit on a bench/chair or stand in a shower. Insure all needed items are within reach prior to your shower. Use a rubber mat or non-skid adhesive on the floor of the tub or shower. Do not shower until your staples/sutures are removed unless approved by your surgeon. The instructions below can also be followed for a shower stall.

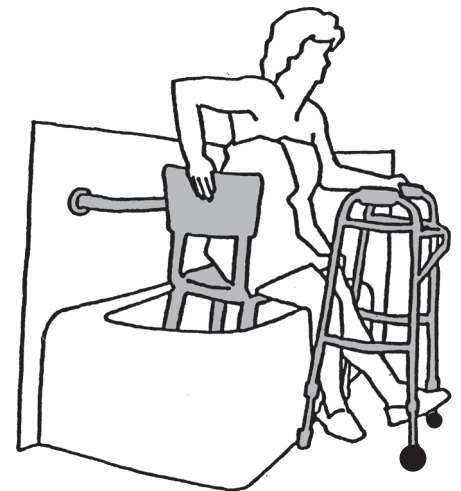
Getting into the tub using a tub bench:

Step 1: Place the tub bench in the tub. It should face the faucets.

Step 2: Back up until you can feel the tub bench on the back of your legs. Be sure you are centered against the tub bench.

Step 3: Slide your affected leg out in front of you before sitting down.

Step 4: Keep one hand on the middle of the walker while reaching back for the tub bench with the other hand.



- Step 5:** Slowly lower yourself onto the tub bench.
- Step 6:** Move the walker out of your way. Keep it close by.
- Step 7:** Lift your legs over the edge of the tub as you scoot yourself around.
- Step 8:** Scoot yourself to the center of the bench.

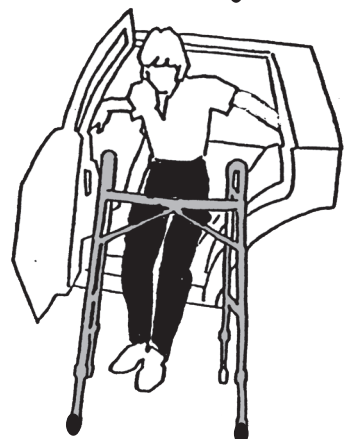
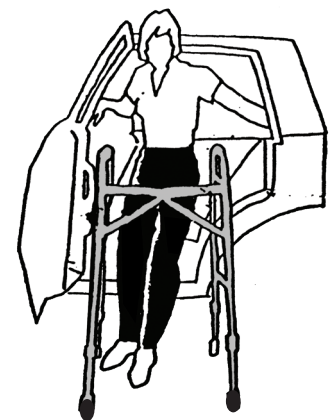
Getting out of the tub using a tub bench:

- Step 1:** Scoot yourself around as you lift your legs over the edge of the tub.
- Step 2:** Scoot yourself to the edge of the tub bench.
- Step 3:** Place one hand on the middle of the walker. Push up with the other hand on the back of the tub bend.
- Step 4:** Gain your balance and place your hands on the walker.

Vehicle

Getting into the vehicle:

- Step 1:** Push the seat all the way back. Recline the back of the seat at least halfway.
- Step 2:** Place a plastic trash bag on the seat to help you turn forward more easily.
- Step 3:** Back up to the vehicle until you feel it touch the back of your legs.
- Step 4:** Slide your affected leg out in front of you.
- Step 5:** Reach back for the back of the seat with one hand and the dashboard with the other hand. Lower yourself down. Be sure to lower your head to avoid hitting it on the doorframe. Scoot backward toward the other seat.
- Step 6:** Turn frontward, leaning back as you lift one leg at a time onto the floorboard of the vehicle.
- Step 7:** Center yourself on the seat.
- Step 8:** Bring the seat back to a comfortable position. Put on your seatbelt.



Getting out of the vehicle:

- Step 1:** Push the seat all the way back. Recline the back of the seat at least halfway.
- Step 2:** Scoot yourself sideways and backward as you lift one leg at a time out of the vehicle and onto the ground.
- Step 3:** Slide your affected leg out in front of you. Push yourself up with one hand on the dashboard and the other on the back of the seat. Be sure to lower your head to avoid hitting it on the doorframe.
- Step 4:** Gain your balance and place your hands on the walker.

Socks and Stockings

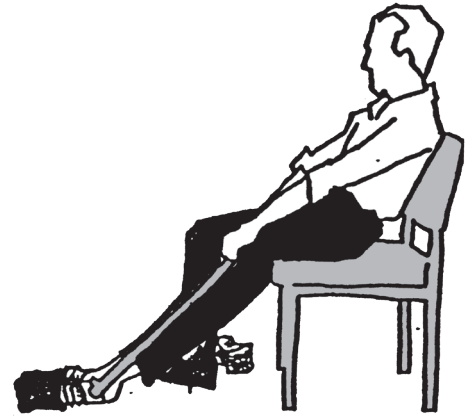
Knee-high socks or stockings are recommended.

Putting on:

- Step 1:** Slide the sock or stocking onto the stocking aid. Make sure the heel is at the back of the plastic, and the toe is tight against the end.
- Step 2:** The top of the sock should not come over the top of the plastic piece.
- Step 3:** Secure the sock in place with garters or notches in the plastic piece.
- Step 4:** Holding onto the cords, drop the stocking aid out in front of the affected leg's foot.
- Step 5:** Slip your foot into the sock and pull it on (see drawing).
- Step 6:** Release the garters or remove the sock from the notches with the dressing stick.
- Step 7:** You may put the sock on your non-affected foot in your usual manner.

Taking off:

To take socks or stockings off, use the hook on the dressing stick to hook the back of the heel, and push the sock off your foot.



Homemaking

- Use an apron with several pockets to carry objects
- Carry hot liquids in containers with covers
- Slide objects along the countertop, rather than carrying them in your hands
- Sit on a high stool when doing countertop tasks (see drawing)
- Use a reacher to reach objects at ground level (do not bend to pick up objects!)
- A bag that attaches to your walker can be used to carry items





Using Adaptive Equipment Properly (If Issued)

Elastic shoelaces:

Used for patients who are unable to tie shoes due to back or hip precautions, bending difficulty or fine motor coordination deficits.



Elastic Shoelaces — turn a lace-up shoe into a slip-on.



Coilers™ — easy-to-use Coilers never need tying.



Deluxe Elastic Shoelaces — slip shoes on and off without tying and untying laces.

Reacher:

The main use of the reacher is to pick up objects off the floor or to use for dressing and other activities for people who have difficulty or are unable to bend due to hip or back precautions. The reacher should not be used to grab heavy items out of the upper cabinets due to the risk of the object falling and hitting the patient on the head or causing loss of balance. Weight capacity for the reacher is approximately 5 lbs.



Long handled sponge:

The purpose of the long handled sponge is to allow the patient to wash his or her own feet, back and other unreachable areas without assistance.



All activities can be resumed ONLY when approved by your surgeon.

Energy conservation/joint protection

Choose low-impact activities such as:

- Regular walks in or outdoors
- Walking on a treadmill
- Recommended exercise at a fitness center
- Swimming
- Dancing
- Cross country skiing
- Aquatics or tai chi program
- Upper extremity strengthening exercises

Avoid high-impact activities such as:

- Downhill or water skiing
- Jogging or running
- High impact aerobics
- Jumping activities
- Tennis or racquetball
- Football
- Baseball
- Lifting more than 25 lbs. repetitively

Household tips:

- Maintain clear walkways
- Do not get down on your knees to scrub floors. Use a mop or long-handled brush
- Keep often used cooking or working supplies where they can be easily reached
- Plan ahead by gathering all cooking or working supplies at one time to work on a project
- Use a high stool or use cushions to provide a better working height
- Plan rest periods in between period of activity
- Pace yourself; attempting to do too much at one time can leave you exhausted for the rest of the day
- Note your highest energy time of day to tackle a heavier activity
- Break down a heavy activity into smaller, more manageable ones
- Push or pull items instead of carrying them
- Ask for help when you need it
- Learn to work smarter, not harder

NOTE: Many other tips for joint protection, work simplification, energy conservation, and equipment are available from your therapist.



Total Knee Replacement

What to Expect

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10-14 Days Before Surgery

- Home changes
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Several Days Before Surgery

- Bills
- Clean
- Groceries and supplies
- Infection
- Transportation: arrange for someone to bring you and pick you up from the center. You must have someone stay with you for 24 hours after your surgery.

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General Information

Welcome and purpose

Welcome to your total knee replacement patient education information. This information will help you learn what to expect about total knee replacement.

Two things are likely true if you are reading this information: you have been living with joint pain for some time, and your doctor has said a knee replacement is an option for you.

Those having a total knee replacement are people with chronic joint pain that interferes with daily life. You are not alone. Each year, over 581,000 Americans have a total knee replacement. A successful knee replacement and rehabilitation program provides your knee with pain relief. It can help you move better at work, play, and rest, and can give you a quality of life you may not have enjoyed before.

Introduction to total knee replacement

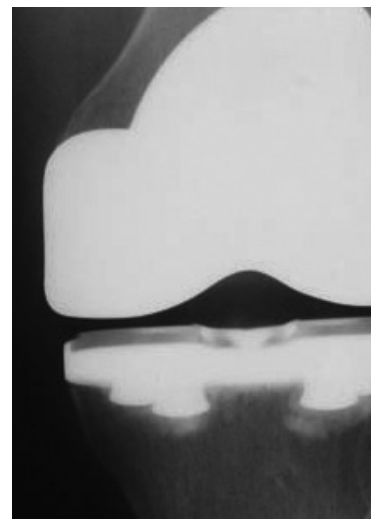
A total knee replacement means your surgeon makes an incision on your knee and replaces the damaged parts of your knee with artificial ones. The artificial parts are usually made of metals, ceramics, or plastics and are either cemented or press-fit into the bone. Your surgeon decides which method is best for you. One part of the prosthesis fits over the end of the upper leg bone (femur) and the other fits over the top of your lower leg bone (tibia). The underside of the kneecap (patella) may or may not be replaced, depending on need. The incision is closed with stitches and/or staples. Any arthritis in that knee is now gone. Pain should lessen and function improve over time.



Normal Knee



Arthritic Knee



Post-Operative Knee

Frequently asked questions

A well-informed patient is one who will be able to take part in their care and rehabilitation. Knowing what to expect before, during, and after surgery can help you recover more quickly. It can also assist you and your caregiver to avoid and recognize potential problems. There are common questions patients have about total knee replacement. Answers to some questions are listed below. However, it's best to discuss your specific questions with your surgeon.

Why do most people have a knee replacement?

One reason is to have less pain. There may be the desire to add walking and exercise back to daily life. Activities such as dressing, grocery shopping, and others are pleasant when they become easier. Many people want improved quality of life overall.

What are the major risks related to total knee replacement surgery?

Infection and blood clots may be avoided by use of antibiotics and anticoagulant medication. Special measures are taken in the operating room to reduce the risk of infection. Dislocation is prevented by using all precautions taught to you by your therapists. Your surgeon will discuss the risks of surgery with you.

Am I too old for this surgery?

Age is not an issue if you are in good health and want to continue living an active life. You may be asked to see your primary care doctor about your overall health and readiness for surgery.

Will I be put to sleep for surgery?

General or regional anesthesia may be possible for your surgery. General anesthesia allows you to sleep. Regional anesthesia provides numbness of a certain body region with other medication given to cause sleepiness. Several factors are included to decide which type of anesthesia is best for you:

- Past experience with surgery
- General health and physical condition
- Reactions or allergies you have had to medications
- Risks of each type of anesthesia
- Input from your surgical team and you

**Discuss this with your anesthesiologist/nurse anesthetist*

How long will my surgery last?

One to three hours is the normal range. Time often depends on the equipment and anesthesia. Some time is also spent preparing you for surgery and anesthesia.

Will I have pain after surgery?

You will have discomfort after surgery, but the discomfort will lessen greatly over the first several days. Medication can be given to keep you comfortable and will also help you to participate in therapy. Quicker than you might think, your medication will be reduced to an over-the-counter pain reliever and then none.

When can I get up?

You will get up on the day of surgery with the assistance of a member of your healthcare team.

When can I shower?

You can shower **with assistance** when approved. Protection of your incision during showers will be discussed with you. You will not be able to sit down in a bathtub for at least three months after surgery.

Will I need physical therapy at home?

Most patients continue therapy at home or at an outpatient setting for a certain length of time.

Should I exercise before my total knee replacement?

Yes. Exercise instructions prior to and after your surgery are included in this folder.

Will I need special equipment after a total knee replacement?

Physical Therapy/Occupational Therapy will recommend the equipment you will need. Besides a gait aid, an elevated toilet seat or commode, and a shower bench or chair, grab bars and other assistive equipment may also be necessary for safety and use at home. Equipment should be arranged before the day of surgery.

Can I drive after surgery?

No, you cannot drive immediately after surgery. You cannot drive while taking pain medication. Generally, driving resumes four to six weeks after surgery. You can ride in a car after surgery by following the techniques and precautions outlined by your therapist.

When can I have sex after knee replacement surgery?

Sexual activity is not recommended immediately after surgery because of pain and swelling. You can resume sexual activity when you feel ready.

When can I return to work?

Most often, at least four to six weeks are needed off from work. Return to work depends on the type of work you do. Your surgeon will release you to return to work.

When can I play sports again?

You are encouraged to participate in low-impact activities after your full rehabilitation. These activities include walking, swimming, etc. High-impact activities such as running, tennis, and basketball are not recommended. Discuss your particular sport or activity with your physician. They will release you to resume certain activities when they feel you are able.

How often will I need to see my surgeon?

You will follow up with your surgeon two weeks after surgery.

**Discuss frequency of follow-up with your surgeon.*

Your Healthcare Team

Your healthcare team members have special training and interest in the area of orthopedics with extensive knowledge to help guide you to discharge. It is important for you to be an active partner with your healthcare team in order to have the best possible outcome. This team includes many, but the main members are listed below.

Anesthesiologist/Certified Registered Nurse Anesthetist

A physician or advanced practice nurse who is responsible for your anesthesia (putting you to sleep or numbing your legs) for total knee replacement. The anesthesiologist or nurse anesthetist may also be involved in pain management issues before and after surgery.

Nurse Practitioner (NP)

A registered nurse with advanced skills and education who works with your surgeon to manage your care. An NP can diagnosis and treat healthcare problems, as well as prescribe medications and order and interpret needed tests. NPs often see you before, during, or after total hip replacement surgery.

Orthopedic Surgeon

A physician/surgeon who performs your total knee replacement and directs your care. This provider guides your rehabilitation and follows you through office visits.

Physical Therapist (PT)

A therapist who plans your physical rehabilitation after your total knee replacement. This therapist will help you regain range of motion, muscle strength, and balance to walk safely with your new joint. You will learn how to use assistive devices such as a walker or cane, which will be needed temporarily after your surgery. Sometimes, patients will attend physical therapy before surgery to learn exercises to build strength.

Physician Assistant (PA)

A healthcare professional who works with your physician to prescribe, diagnose, and treat healthcare problems. Physician assistants often see you before, during, or after total joint replacement surgery.

Orthopedic Nurses

Professional nurses who are responsible for managing your bedside nursing care following your surgery. Nurses use the surgeon's instructions to guide your care. They provide education to you and your family about your health and safety needs, including information before and after surgery and plans for your discharge.

Before Surgery Checklist

Advanced Healthcare Directive (Advance Directive, Living Will)

If you do not have an Advanced Healthcare Directive, this is a good time to complete one before your surgery. This form will help explain your health care wishes to the healthcare team.

If you already have an Advanced Healthcare Directive, please bring a copy along to the center.

Assistance

Ask your spouse, children, neighbors, or friends if they can help you for a few weeks after returning home from surgery.

Diet

Eat as healthy as possible with the appropriate serving of fruits, vegetables, protein, whole grains, and low-fat dairy. An adequate iron supply is important before surgery. Good sources of iron include lean red meats, fortified cereals, and leafy green vegetables such as spinach or kale.

Fluids are important for helping you to have regular bowel movements. Most of that fluid should be water and juicy fruits and vegetables.

Exercises

Building strength can help you to have a successful outcome after surgery.

Low-impact exercise sessions are sponsored by the Arthritis Foundation and many local senior centers and gyms. Water exercise, walking in waist-high water, or swimming two to three times a week can also increase strength and endurance.

There are some simple, effective exercises you can do in your own home from now through your rehabilitation after surgery. Please see the exercises listed in the “Home Instructions” section. Feel free to do the leg exercise with both legs. Do arm exercises with both arms to build strength and help you best use a walker, crutches, or cane.

Medical appointment

The following tests may be ordered:

- EKG (electrocardiogram)
- Lab work
- Chest x-ray
- Urinalysis
- Cardiac or Pulmonary Clearance

Smoking

Smoking is known to cause breathing problems and can also decrease the rate of healing. Try to decrease smoking or seek methods to stop—your primary care provider can offer ideas to do so.

10-14 Days Before Surgery

Home changes

Some changes may be needed for you to return home safely after surgery. It's best to have the bathroom, bedroom, and living areas on the same floor. If this is not the case, you may want to place a bed on that floor for a short while. Or you may choose to stay with a relative or friend for a month or so after surgery.

- Purchase night lights and place them in your bathroom, bedroom and hallways
- Move loose fitting, comfortable clothes and pajamas to a place that's easy to access—keep items in drawers that are waist level only
- Remove throw rugs and ensure that electrical cords are out of the line of traffic—both rugs and cords can be safety hazards
- An extra cushion or pillow can be used to build height
- It is a good idea to make some meals that can be frozen and easily reheated
- Consider another option for laundry if your washer and dryer are not on the living level
- Place a rubber mat or non-skid adhesive on the floor of the tub or shower

Mail

Arrange for someone to collect your mail or place it on hold at the post office.

Medications

Medications that are often stopped prior to surgery include:

- Aspirin
- Some anti-inflammatory medicines (like Motrin, Aleve, Coumadin, Plavix, etc)
- Some vitamins
- Fish oils
- Herbal supplements (such as ginseng, ginkgo biloba, garlic pills)
- Herbal teas
- Fortified cereals that contain vitamin E
- Pain medications that contain aspirin
- Some over-the-counter and prescription pain medications can continue until the time of surgery
- Please be honest about your drug and alcohol use—it is important to know as it can relate to your anesthesia and pain management

**Discuss which medications should be stopped and when with your surgeon; this includes blood thinners.*

Several Days Before Surgery

Bills

Pay bills so they are up-to-date through a few weeks after your return home.

Clean

Clean up the house, including vacuuming the carpets. Do laundry. Refer to "Home changes" under "10-14 Days Before Surgery" section.

Groceries and supplies

Purchase food items and needed supplies that can be used after your return home. It's handy to have bags of frozen peas or corn on hand as they can be used for ice packs.

Infection

Notify your surgeon's office right away if you think you may have an infection of any kind: bladder, skin, tooth, etc.

Transportation

Confirm how you will get to and from the clinic. You are not allowed to drive yourself home from the center. Insure the passenger seat reclines and can fully move backward.

Night Before Surgery

Pack

Items to include are: (X)

- Your most current list of medications and supplements, noting which ones have been stopped and when
- Loose shorts, jogging suit, sweats, tops
- Eyeglasses
- Hearing aid and batteries
- CPAP machine (if used at home)
- Driver's license or photo ID, insurance card, Medicare/caid card
- Copy of your Advanced Healthcare Directive

Do NOT

- **Do NOT** eat or drink anything after the time you were instructed—ice chips, gum, or mints are not allowed
- **Do NOT** bring valuables—no jewelry, credit cards, checkbooks, cash
- **Do NOT** use tobacco products after midnight/the night before.
- **Do NOT** use THC for 24 hours prior to surgery.

Do Shower—get your skin ready for surgery

It is important that your skin is very clean before surgery because germs on your skin increase the chance of getting an infection. Please follow the directions below for showering with a special soap called Chlorhexidine - Gluconate (CHG)-(Hibiclens or Hex-a-clens). *Use this soap the night before your surgery and again the morning of your surgery.*

Directions for showering with CHG::

1. **Do NOT** shave the surgical site for at least 48 hours before the operation.
2. Wash and rinse your hair with your normal shampoo.
3. Wash your body with your regular soap first.
4. Rinse your hair and body very well to remove any soap or shampoo.
5. Turn off the shower.
6. Apply CHG soap from the sponge, and wash your body from the neck down.
Do NOT use on your face, eyes, or ears. (CHG soap does not lather well, but that does not mean that it is not working)
7. Wash your body gently for five minutes; focus on the area of your body to be operated on.
8. **Do NOT** scrub your skin too hard.
9. Turn the shower back on and completely rinse the CHG soap off your body.
10. Pat yourself dry with a freshly laundered clean, dry towel.
11. Put on clean clothes.
12. **Do NOT** use any lotions, moisturizers, make-up, or other products on the area of your body to be operated on.

Clinic Care

Day of Surgery

Please wear loose fitting pants the day of your surgery!

- Do not wear jeans, make-up, and jewelry
- Do not wear slides, sandals, or flip-flops; DO wear tennis shoes
- Remove fingernail polish and toenail polish
- Take medications as instructed with the smallest amount of water possible
- Do not eat or drink anything
- You may brush your teeth
- Do not take insulin unless instructed otherwise

It's important to arrive at the Surgical Center on time. You will complete any needed forms. You will be taken to the pre-op area where nurses will prepare you for surgery. You will put on a hospital gown and go to the bathroom. You may have an IV started in your vein. You will discuss your anesthesia with an anesthesiologist or nurse anesthetist. You may be given medication to relax. You will be taken to the operating room for your surgery.

After your surgery is completed, you will be taken to the recovery room for one to two hours. Nurses will watch you closely until you are stable. Your surgeon will talk with your family after surgery has ended.

Activity

Patients get out of bed on the day of surgery. A nurse will help you do this. Therapists will talk to you about exercises to strengthen your muscles and how to walk safely.

You will increase activity daily to enhance your strength and mobility. You will walk further each day. You will perform exercises several times per day. Your rehabilitation program will continue after you go home.

It is important to get adequate rest between your therapy and activities.

Breathing

There may be an oxygen tube in your nose. Your nurse will likely remove the tube later on the day of surgery. You will do deep breathing and coughing exercises for several days after surgery. You may be asked to use a breathing device. This is done to expand your lungs and help get oxygen to your tissues.

Circulation

It is important to perform leg exercises to help your blood circulate. You will know many of the exercises since you did them at home before surgery. Your therapists will teach you new exercises too.

There may be snug stockings and/or sleeves wrapped around your legs or feet. If present, the sleeves fill with air and then relax. These are to promote venous return. You will be given medication to reduce the chance of blood clot.

There should be no pillow under your affected knee.

Discomfort

You will have some pain. The goal is to get the pain low enough so that you can rest and take part in physical therapy. To keep pain managed, you may receive pain medication through your IV, IM, or pills. An ice pack may be used on your knee to lessen pain and swelling. Your pain will decrease every day.

Food/fluids

You will have fluids going through your IV at first. The IV will be stopped when you are eating and drinking well.

Going to the bathroom

It may take a day or more to have a bowel movement. Anesthesia and pain medication can cause constipation. Drink plenty of fluids and eat whole grains, fruits, and vegetables. A stool softener or laxative can help normal bowel function to return. Notify your nurse if constipation is a concern so a regimen can be started.

Wound care

You may have a big dressing on your knee. Your incision may have sutures, staples, steri-strips, or glue.

After Surgery

Continue to cough and deep breathe. Drink fluids to keep hydrated. Wear loose clothes. Repeating exercises throughout the day will help you gain strength.

Caring for Yourself at Home

Anticoagulant medication

You have likely been given a prescription for an anticoagulant medication. This medication prevents clots from forming and the medication may be in pill or shot form (a tiny needle that goes into the abdomen). You may also need lab work done to make sure your medication is working properly. Take this medication for as long as directed by your doctor. Usually, you will be on it anywhere from three to six weeks after your total knee replacement. Contact your doctor right away if you notice easy bruising, nosebleeds, or blood in your urine.

Body changes

You may have less of an appetite for a while, so be sure to drink plenty of fluids. Your energy level may be less than usual for a few weeks after surgery. Constipation may result from pain medication, but you can use a stool softener or laxative if needed. Your new knee may cause your leg to feel longer due to the joint likely gaining some height that was lost prior to surgery.

Coping with stress

Undergoing surgery can be a very stressful event for anyone. It can also be stressful to rely on others to help while you are healing. However, having support from friends and family is needed for full rehabilitation. Having realistic goals and keeping a positive outlook can help. Make note of small achievements. Some people find that deep breathing and relaxation techniques help. Memorial Health System offers have resources available (social workers, counselors, spiritual care, etc.) if you need additional support. Remember to ask for help when you need it.

Discomfort

It is important to take pain medication with food and as prescribed by your surgeon. It may be helpful to take your pain medication about 30 minutes before your planned therapy/exercise session. Don't wait until discomfort has the best of you to take medication. Do not drink alcohol or drive while taking pain medication. As you have less discomfort, start to decrease how many pain pills you are taking and how often you are taking them. Eventually, you will no longer need pain medication. Applying an ice pack (or a frozen bag of peas/corn) to your knee for 20 minutes several times per day can help the discomfort too. Change your position at least every 45 minutes during the day to avoid stiffness. Numbness around the incision may be temporary or permanent. Contact your surgeon if your discomfort does not respond to the above methods.

Equipment

You will use a walker after surgery. An elevated toilet seat, bedside commode, or toilet safety rails can be very handy for the bathroom. A bedside commode can often fit over the toilet and also be used to sit on in the shower. You will not be able to get down into the bathtub until approved by your surgeon. Other adaptive equipment such as a reacher, sock-aid, long-handled shoe horn, long-handled sponge, handheld shower, grab bars, and elastic shoe laces may prove useful to you as well.

Incision care and dressing changes

There will be some swelling initially, especially after exercise. There should be no redness, hotness, odor, increased drainage, or opening of the incision. Call your surgeon's office if you notice those changes. You may need to use mirrors if you'd like to view your incision. Usually, sutures or staples are removed 10-14 days after surgery at the physician's office. Follow wound care and dressing change orders provided to you at time of discharge.

Activities of Daily Living

Safety and avoiding falls

There are many things you can do to keep your joints safe. Please follow these suggestions to avoid injury and falls:

- Keep throw rugs put away
- Be aware of floor hazards such as small objects, pets, and uneven surfaces
- Provide good lighting; use night lights and a flashlight as needed in the halls, bathroom, and bedroom
- Keep cords out of the walking path
- Wear shoes with backs; soles should be rubber for good traction
- Use chairs with arms to help you get up and down
- Get up slowly from a chair or the bed in case you are dizzy
- **Do NOT** lift heavy objects for at least three months; discuss with your surgeon first
- Change positions frequently to avoid stiffness
- Keep your appointments with your surgeon as instructed

Bed mobility

Bend your unaffected leg to help push yourself to a new position.

Ambulation

A walker should be fitted to your height by a health care professional prior to your discharge to home.

Dressing

Putting on pants and underwear by yourself:

1. Be sure all needed items are within easy reach.
2. Slide your affected leg out in front of you.
3. Sit down on a supportive surface to maintain your balance.
4. Use a reacher or dressing stick to grasp the clothing. Place your affected leg in first, followed by your unaffected leg. The reacher or dressing stick can be used to guide the waist band over your feet and knees.
5. Pull your pants up to your thighs without bending past 90 degrees.
6. Stand with the walker in front of you. Pull your pants up the rest of the way without bending forward.

Taking off pants, underwear, or socks by yourself:

1. Be sure all needed items are within easy reach.
2. Back up to a chair or bed.
3. Unfasten your pants and allow them to fall to the floor. Push your underwear off your hips.
4. Slide your affected leg out in front of you. Lower yourself down to a chair or bed.
5. Use a reacher or dressing stick to grasp the clothing.
6. Remove your affected leg.

Putting on shoes by yourself:

1. Be sure all needed items are within easy reach.
2. Slide your affected leg out in front of you.
3. Sit down on a supportive surface to maintain your balance.
4. Use a long-handled shoe horn, dressing stick, or reacher to slide your shoe in front of you foot.
5. Place the shoe horn inside the shoe.
6. Lean back as you lift your leg to place your toes inside the shoe.
7. Step down into your shoe, sliding your heel downward against the shoehorn.
8. Fasten your shoe by using the reacher to close the Velcro straps or pull elastic shoe laces tight.

Taking shoes off by yourself:

1. Be sure all needed items are within easy reach.
2. Slide your affected leg out in front of you.
3. Sit down on a supportive surface to maintain your balance.
4. Use a reacher to unfasten your Velcro straps or elastic shoe laces.
5. Use a long handled shoe horn, dressing stick, or reacher to slide your shoe off of your foot.



Home Instructions

Total Knee Arthroplasty

Exercise is very important after a total knee replacement. Exercise will help you strengthen your knee and other muscles. It will also help you gain at least 90° of flexion in your affected knee. Continue with your walking program and challenge yourself to go farther and farther every day. The more you are active and exercise, the more mobile you will become.

Activity goals for weeks 1-2:

- Walk at least 300-500 feet with your walker, crutches, or cane as instructed
- Go up and down 12-14 steps with a rail, one foot at a time, once per day
- Bend your knee to 90°-105°
- Straighten your knee completely by lying flat for 30 minutes several times per day; place a towel roll under your ankle
- Shower and dress by yourself
- Gradually resume light home duties with help as needed

Activity goals for weeks 3-4:

- Complete any remaining goals from weeks 1-2
- Wean from a walker or crutches to a cane or one crutch as instructed
- Walk at least the distance of 4 blocks
- Go up and down 12-14 steps with a rail, one foot at a time, more than once per day
- Bend your knee to 90°-105°
- Straighten your knee completely by lying flat for 30 minutes several times per day; place a towel roll under your ankle
- Resume all light home duties with help as needed

Activity goals for weeks 5-6:

- Complete any remaining goals from weeks 1-4
- Walk with a cane or crutch to complete the distance of 4-8 blocks
- Go up and down stairs with a rail, one foot at a time until you can alternate your steps
- Bend your knee to 90°-105°
- Straighten your knee completely by lying flat for 30 minutes several times per day; place a towel roll under your ankle
- Drive a car at six weeks if approved by your surgeon
- Resume all light home duties by yourself

Activity goals for weeks 7-12:

- Complete any remaining goals from weeks 1-6
- Walk without a cane or crutch without a limp the distance of 8-16 blocks
- Go up and down stairs with a rail
- Bend your knee 90°-105°
- Straighten your knee completely by placing only the foot on a stool for 30 minutes several times per day
- Resume all home duties and low impact activities

Preventing/recognizing potential complications:

Blood clots

You may be asked to wear snug stockings at home. Elevate your affected leg above heart level for short periods throughout the day. It's also important to lay totally flat for a few 20 minute periods to help lessen groin swelling. Take your anticoagulant medication as directed. Perform your exercises and walk. These are all ways to prevent blood clots.

Contact your surgeon right away if any of the following occur:

- Pain or excessive tenderness in your leg or calf
- Redness of your calf
- Swelling in your foot, ankle, calf, or thigh

NOTE: *A blood clot in the leg can move to the lung. This can lead to shortness of breath, chest pain, coughing up blood, or unexplained anxiety, especially with breathing. Call 911 for the medical emergency.*

Infection

Hand washing (or an alcohol-based hand cleanser) is the most important step for preventing infection. You and your caregiver need to wash your hands prior to changing the dressing over your incision. Keep your incision dry, unless your surgeon has approved getting it wet. Eating a healthy diet and drinking plenty of fluids can help prevent infection too.

Your surgeon may recommend that you take antibiotics to prevent infection before you undergo future dental procedures or other invasive medical procedures. Be sure to discuss this during your first post-op visit unless already done.

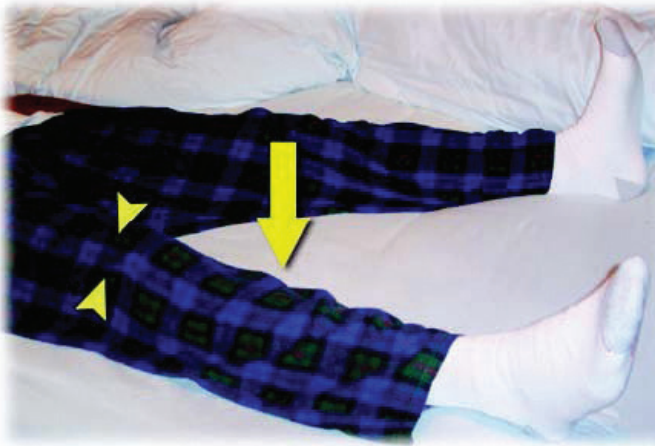
Contact your surgeon right away if you note any of the following:

- Increased redness, heat, or swelling around incision
- More or foul smelling drainage from incision
- Increased pain in the knee
- Persistent fever greater than 100° F or chills

NOTE: *Contact your primary care doctor if you think you may have an infection elsewhere. This includes bladder, sinus, tooth, etc.*

Home Exercise Program

Leg Exercises



Quad Sets:

While lying on your back in bed, press your knee into the mattress and tighten your muscle on the top of your thigh. Hold for a count of 5-10 seconds. Do not hold your breath.

Repeat 10 times with both legs, 2-3 times per day.



Ham Sets:

While lying on your back in bed, keep your affected leg bent and the other leg straight. Tighten the muscle on the back of your affected leg. Push the heel down onto the bed with the affected leg. Hold for 5 seconds.

Repeat 10 times with both legs, 2-3 times per day.



Heel Slides:

While lying on your back in bed, bend your knee and slide your heel to your buttock. Slide it back out straight. Use a plastic bag under your foot if it is easier that way.

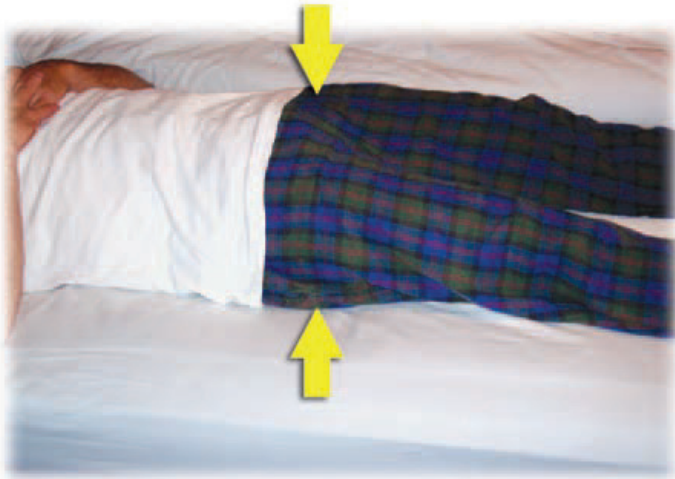
Repeat 10 times with the affected leg, 2-3 times per day.



Lying Knee Extension:

Lie on your back in bed. Place a towel roll under the lower part of your thigh. Lift your foot and straighten your knee. Do not raise your thigh off the roll.

Repeat 10 times with the affected leg, 2-3 times per day.



Gluteal Sets:

While lying on your back in bed, squeeze your buttock muscles together and hold for a count of 5-10 seconds.

Repeat 10 times with both legs, 2-3 times per day.



Straight Leg Raises:

While lying on your back in bed, tighten your thigh muscles and lift the affected leg up several inches off the bed. Keep your knee straight and toes pointed up. Hold the leg up for 5-10 seconds and then lower it back onto the bed.

Repeat 10 times with each leg, 2-3 times per day.

Do not continue if this hurts your lower back.



Sitting Knee Extension:

While sitting in a chair with your back against the chair back, straighten your knee and hold for a count of 5-10 seconds. Lower your leg back down to the floor.

Repeat 10 times with the affected leg, 2-3 times per day.



Ankle Pumps:

While sitting in a chair or lying on your back in bed, straighten your knee and slowly push your foot forward and backward.

Repeat 20 times with both ankles, 2-3 times per day.

Leg Exercises (cont.)



Sitting Knee Extension With Stool:

While sitting in a chair, place the foot of your affected leg on top of another chair seat or stool. Press your knee down and hold for 30 seconds.

Repeat 10 times with both legs, 2-3 times per day.



Sitting Knee Flexion:

While sitting in a chair, scoot a little forward. Place a belt or towel under your foot while holding the edges in your hands. Bend your knee as far as you can with the belt/towel. Scoot forward a little more to feel more of a stretch at your knee. Hold for 30 seconds.

Repeat 3-5 times with the affected leg, 2-3 times per day.



Standing Hip Extension:

While standing up, hold on to the back of a chair. Bring your leg backward as far as you can. Keep your knee straight.

Repeat 10 times with the affected leg, 2-3 times per day.



Heel Raises:

While standing up, hold on to the back of a chair. Raise up to your toes.

Repeat 10 times, every hour while awake

Leg Exercises (cont.)



Standing Knee Flexion:

While standing up, hold on to the back of a chair. Bend your knee back behind you. Slowly lower it back to the ground.

Repeat 10 times with the affected leg, 2-3 times per day.



Standing Knee Raises:

While standing up, hold on to the back of a chair. Raise one knee at a time as if marching in place. Lift your knee up for 2-3 seconds. Slowly lower it back to the ground.

Repeat 10 times with the affected leg, 2-3 times per day.



Toe Raises:

While standing up, hold on to the back of a chair. Lean body weight onto your heels. Toes should be off the ground. Slowly lower toes back to the ground.

Repeat 10 times, 2-3 times per day.



Mini Squats:

While standing up, place your back against a wall. Slide down the wall until your knees are bent 30-45°. Slowly raise up to the straight position.

Repeat 10 times with the affected leg, 2-3 times per day.

Leg Exercises (cont.)



Standing Hip Abduction/Adduction:

While standing up, hold on to the back of a chair. Move your affected leg out to the side. Keep hip, knee, and foot pointed straight forward. Keep your knee straight. Slowly lower it back down to the ground.

*Repeat 10 times with the affected leg,
2-3 times per day.*

Arm Exercises

Building arm strength is needed to help you to best use a walker, crutches, or cane.



Wrist Flexion/Extension:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Place your arm on the armrest of the chair. Extend wrist up. Bend wrist down.

Repeat both actions 10 times with both wrists, 2-3 times per day.



Elbow Flexion:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Place your arm on the armrest of the chair. Bend your elbow, bringing your hand back onto them armrest.

Repeat 10 times with both arms, 2-3 times per day.



Forearm Rotation:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Place your arm on the armrest of the chair. Rotate the forearm downward so that the soup can or bottle of water faces the floor. Rotate the forearm upward so that the soup can or bottle of water faces the ceiling.

Repeat 10 times with both arms, 2-3 times per day.



Elbow Extension:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Place your arm on the armrest of the chair. Lift your elbow up towards your head. Bring your hand down toward your ear. Lift up toward the ceiling.

Repeat 10 times with both arms, 2-3 times per day.

Arm Exercises (cont.)



Shoulder Flexion:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Start with your hands on your legs. Reach your arms towards the ceiling with the elbows straight. Lower your arms to your legs.

Repeat 10 times, 2-3 times per day.



Shoulder ABduction:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Start with your arms out to the sides, even with your shoulders. Keeping your elbows straight, reach for the ceiling from the sides of your body. Lower arms back towards the sides of the body.

Repeat 10 times, 2-3 times per day.



Shoulder ADduction:

Sit in a chair with feet flat on the floor. Hold a soup can or bottle of water in your hand. Place your arm on the armrest of the chair. Bring your elbows up to be even with the shoulders and out to the sides of the body. Push arms backward to squeeze the shoulder blades together.

Repeat 10 times, 2-3 times per day.



Arm Chair Push-ups:

Sit in a chair with feet flat on the floor. Place hands on the armrests. Straighten your arms while raising your buttocks off the chair.

Repeat 10 times, 2-3 times per day.

Healthcare Provider Phone Numbers

Healthcare Provider	Name	Phone Number
Nurse	_____	_____
Occupational Therapist	_____	_____
Physical Therapist	_____	_____
Surgeon	_____	_____
Primary Care Provider	_____	_____

Other Phone Numbers

Name	Phone Number	Comment
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appointment List

Appointment	Date	Time	Comment
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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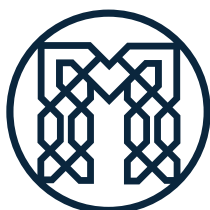
Notes

Notes

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