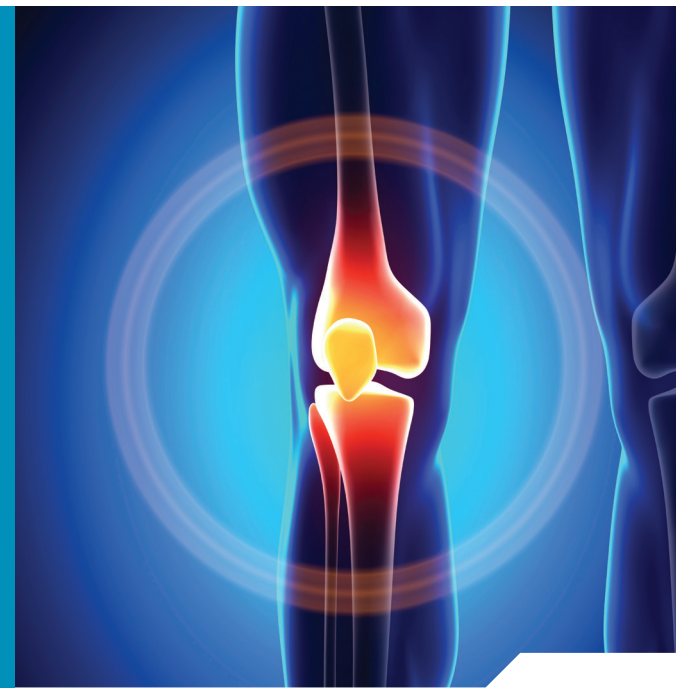




Orthopedic guide

Knee replacement





What you will find in this guide

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The material in this booklet is not intended for diagnosing or prescribing. Consult your physician before undertaking any form of medical treatment or adopting any exercise program or dietary guidelines.



Welcome to Baylor Scott & White Health

Our goal is to help you return to the life you want to live free of joint pain. This book explains the knee replacement journey from getting ready for surgery to going home after surgery.

While you are in the hospital, we will work with you to plan your care. The plan may change based on what you need. By the time you leave the hospital, you will know how to better help yourself while you continue to recover at home.

Our joint program includes:

- A dedicated area for patients having joint replacement surgery
- A team trained to work with you after your joint replacement
- A plan to get you feeling like yourself soon after surgery including getting out of bed, sitting up for meals, and helping you dress in your own clothes
- An exercise program
- Updates to keep you informed about your progress
- Patient and family education
- Coordinated care for going home
- Written instructions to take home

Your operation

How the knee works

The knee joint is a hinge joint that allows bending between the thighbone (femur) and the lower leg bones (tibia and fibula). The end of the thighbone rests on the top of the lower leg bones. Cartilage covers the ends of the bones where they come together and serves as a cushion between the bones.

Cartilage is smooth in a healthy knee. The parts of the joint that touch slide smoothly against each other with healthy cartilage.

Over time, from an injury, or for other reasons, the cartilage can wear out causing the bones to rub together. The bones get rough and grind against each other causing stiffness or pain.

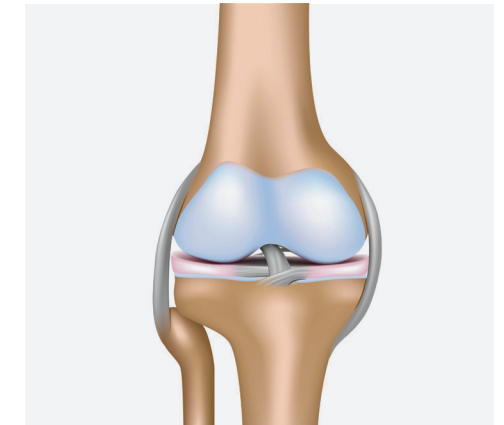
Total knee replacement

The operation you will have replaces your worn knee joint with an artificial (man-made) knee joint. This artificial knee joint is called a prosthesis. The prosthesis works like a normal knee.

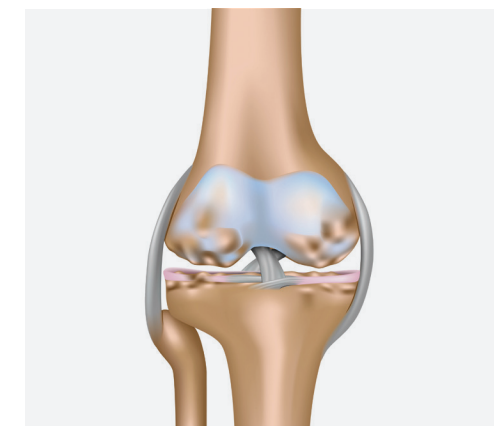
The prosthesis is made of plastic and metal and has two parts. One part covers the tops of the lower leg bones. A short stem from the top part goes down into the center of the lower leg bone to keep it in place. The other part of the prosthesis covers the end of the thighbone.

The parts of the prosthesis that touch each other are smooth. They move easily against each other, just like a healthy knee.

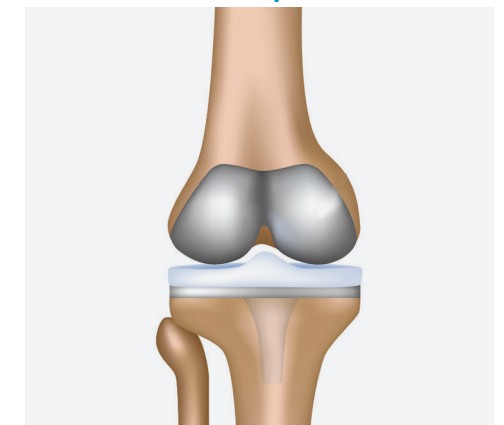
Healthy knee



Worn knee



Total knee replacement



Before you come to the hospital

Plan for surgery before you come to the hospital. Use this checklist to keep track of things you need to do ahead of time.

- Ask someone to be your support person. This should be someone to help you as you get well. If you live alone, ask this person to stay with you once you return home. Who is your support person?

Name: _____

Phone number: _____

- Find family members and friends to help with housekeeping, shopping, meals, and driving for about 2 weeks. Who is going to drive you home?

Name: _____

Phone number: _____

- Go to joint class.

Where: _____

Date: _____

Time: _____

- Plan easy meals to eat after you get home from the hospital.

- Organize your kitchen so supplies are at shoulder or waist level. You may not be able to bend, reach, or lift very much after surgery.

- If your bedroom is upstairs, prepare a room downstairs where you can sleep when you first get home.

- Have a firm chair with arm rests.

- Clear your home of obstacles and remove any throw rugs so you will not trip. For rugs you cannot remove, make sure they have a nonslip backing and edges are secured down. Repair loose carpet.

- Install nightlights in the bedroom and bathroom and any other areas you may walk at night.

- Make plans for pets so returning home is safe for you and your pets.

- Bring casual clothes and nonskid lightweight shoes with you to the hospital.

Notes: _____

Surgery day

Before surgery

- We will call you back and give you a hospital gown to put on for surgery. You must take off all other clothes. We will respect your privacy at all times.
- Take off all personal items including hair accessories, jewelry, glasses, contact lenses, hearing aids, and prostheses. Take out any artificial dental work unless you have been told not to.
- Give your belongings and valuables to a family member or friend.

While you are in pre-op

- Your nurse will ask you some questions and your full name to make sure it matches your identification bracelet. Feel free to ask any questions you have.
- Your surgeon and anesthesiologist will talk with you and answer questions. Options for anesthesia can be talked about at this time.
- You will be asked to sign consent forms.
- An IV (intravenous) line will be put in a vein, usually in your arm or hand. The IV will be used to give you fluids and medication.
- Your nurse might give you medications. Some of these medications may make you feel drowsy.
- We will put up the side rails on your bed for your safety. Do not get out of bed without help. We do not want you to fall.



After surgery

After surgery you will go the recovery room. The recovery room is also called the Post Anesthesia Care Unit (PACU). Here, nurses will monitor you closely. You will be given medication as needed. You will go to your regular hospital room after your stay in the recovery room.

What to expect when you get to your hospital room

Once you get to your room, your nurse will come see you. Nursing team members will check your vital signs and look at your bandages often during the day and night. Nursing team members will make sure you are comfortable and have what you need.

At first there may be some tubes attached to you. If you still have a catheter in your bladder when you get to your room, it will be taken out as soon as possible. You will probably still have your IV in place. Your nurse will check your IV often. Tell your nurse right away if you notice the skin around your IV is red, swollen, or sore.

Care after surgery

Pain management

Many people have pain or discomfort after surgery, but your pain can be managed. Your incision area may feel warm and you may feel stiff. Your healthcare team will work with you to make a pain management plan. A pain management plan uses a combination of medications and other ways to manage pain. Medication may not completely stop the pain, but it will lessen the pain. There are other ways to manage pain such as changing positions, moving around, and using ice packs. Tell your healthcare team when you are in pain. We will ask you to rate and describe your pain. We will decide with you how to manage your pain. As your body heals and as you are moving around more, you will feel more comfortable.

Coughing and deep breathing

After surgery if you are in pain or not moving around, you may take smaller breaths than normal. This can cause fluid and mucus to collect in your lungs and could cause pneumonia. To lower this chance and to keep your lungs working their best, we will coach you to cough, take deep breaths, and use an incentive spirometer. An incentive spirometer is a small, plastic device that shows you how deep your breaths are. Use it 10 times every hour you are awake to make sure you are breathing deeply enough. Getting out of bed and sitting up in a chair as soon as possible will also help you breathe more deeply.

Nutrition

You can begin drinking and eating soon after surgery. Drink plenty of water and eat healthy foods to help your body heal. Protein helps with healing. Good sources of protein are meats, dairy products, eggs, beans, and soy protein. Include protein with all your meals and snacks. Talk to your healthcare team about taking a multivitamin to help with healing. A registered dietician can meet with you while you are in the hospital if you have concerns about your nutrition.

Constipation

Some people have constipation after surgery. Drink more liquids, like water, and eat more fiber to help with constipation. Good sources of fiber include whole grains, fruits and vegetables. Take stool softeners as told by your healthcare team.

Blood clot prevention

After any surgery, a blood clot, also called a deep vein thrombosis (DVT), may happen. If a blood clot happens, it usually happens in the thigh or calf. Ways to lower your chance of a blood clot are:

- Getting up with help as soon as possible.
- Wearing foot pumps or calf pumps to help keep blood moving when you are in bed or reclined.
- Taking blood thinner medicine if prescribed.

Care after surgery

Activity

Walking and exercising are keys to healing after this surgery. The sooner you get up and move around with help, the faster you will feel better. It is very important that you do your exercises in the hospital and keep doing them when you get home. Do ankle pumps and quad sets often (see page 14). Your therapists will help you with more exercises and walking.

Hand hygiene

To lower the chance of an infection while you are in the hospital, everyone who comes in your room should clean their hands with soap and water or hand sanitizer. It is also important for you to clean your hands often. Before changing the dressing on your incision, you and anyone helping should wash hands well. Good hand washing should continue when you go home since hand contact is the number 1 way germs are spread.

Physical therapy goals

Your physical therapists will work with you so you can:

- Get in and out of bed on your own
- Stand up from and sit down on a bed or chair using a walker or crutches on your own
- Walk safely with a walker or crutches
- Walk up and down a curb or stairs using a walker or crutches and some help from another person
- Do your home exercises



Occupational therapy goals

Your occupational therapists will work with you so you can:

- Get dressed using tools or a little help from another person
- Safely sit down on and stand up from the toilet using a walker or crutches
- Get into and out of the tub or shower with a little help from another person

After your hospital stay



Checklist to stay on track in the hospital

Use this checklist of questions to guide your care in the hospital.

- Do you have an incentive spirometer in your room? Are you using it? Ask your nurse if you do not have one or do not know how to use it.
- Are you working with your healthcare team to manage your pain?
- Are you sitting up in the chair for meals?
- Are you moving around and walking during the day?
- Are you doing exercises as told by your therapist?
- Do you have foot pumps or calf pumps on when you are reclined or in bed?
- Do you have all the equipment you will need at home?
- Do you have therapy set up for when you go home if needed?

Most people go straight home after joint replacement surgery – home is the best place for you to recover. See page 6 for a list of things you can do before surgery to make returning home easier for you. Ask your healthcare team if you have questions about activity or therapy after you leave the hospital. Use this checklist to keep track of things you need to know or do before you go home.

- Know when your follow-up appointments are scheduled.

Where: _____

Date: _____

Time: _____

Where: _____

Date: _____

Time: _____

- Set up your first therapy appointment.

Where: _____

Date: _____

Time: _____

- Learn how to do your dressing changes.
- Learn how to prevent blood clots.
- Know what foods are good for you to eat.
- Ask your therapists questions you have about getting around your home.
- Practice exercises 3 times each day. Do slow, steady repetitions. Breathe as you exercise.
- Put ice packs on your operated hip for 20 minutes after you exercise.
- Know when you can drive.
- Know when you can go back to work.

Notes: _____

At home

Managing pain

Keep doing the things that helped you manage your pain in the hospital. Balance rest and activity. Make your home a place to help you get better. Keep it free of clutter, open blinds and shades for natural light, keep noise at a comfortable level, and listen to music you like. Take medication as told to by your healthcare team. Before you leave the hospital, talk to your healthcare team about what to do if your pain is not getting better or is getting worse when you are home.

Changing the dressing (bandage) on your incision

Follow the instructions given to you by the healthcare team for changing the dressing (bandage) and caring for your incision. If you have been told to change the dressing, wash your hands first. Look at the incision each time you change the dressing. Call your healthcare team if you notice more redness or drainage than before. Put a clean dressing on and cover all parts of the incision.

Preventing infection

Wash your hands with soap and water often. Ask family members, friends, and caregivers to wash their hands often. Before changing the dressing on your incision, you and anyone helping should wash hands well. Ask visitors who are not feeling well to visit after they are well.

Preventing pneumonia

Continue to take deep breaths and cough regularly. Take your incentive spirometer home and use it 10 times every hour you are awake to help you take deep breaths. Get up and move around every hour during the day. Activity makes you breathe more deeply without realizing it. Doing these things will keep your lungs working their best and lower your chance of getting pneumonia.

Preventing blood clots

Get up and move around every hour during the day to lower the chance of blood clots forming. Do ankle pumps when you are sitting. If your healthcare team told you to take blood thinners, take them as told.

Preventing constipation and urinary tract infections

Drink at least 8 glasses of fluids every day. Water is the best fluid to help prevent constipation and urinary tract infections. Go to the bathroom as soon as you feel the urge. Some medication can cause constipation for some people. Ask your healthcare team about over the counter medication you can take to help with constipation. Getting up and moving around during the day will also help.

At home

Preventing falls

Follow these tips to prevent falls at home.

About you

- Wear glasses if needed
- Talk to your healthcare team about all your medicines and side effects that make you more likely to fall
- Take your time doing things—do not rush
- Wear well-fitting, low-heeled shoes with nonskid soles
- Do not wear socks without shoes on smooth floors
- Limit drinks with alcohol
- Use a walker, crutches, or cane if told by your healthcare team—clean and replace rubber tips when needed

Flooring

- Use nonskid floor wax
- Avoid rugs on floors. If you use rugs, make sure they have a nonslip backing and edges are secured down
- Repair loose carpet
- Clean up spills immediately

Bathrooms

- Use non-slip mats near sinks and showers to absorb water
- Have a gripped surface on the bottom of tubs and showers
- Sit on a tub bench or shower chair for bathing if needed

Around the house

- Remove items that may cause you to trip
- Be careful around pets especially small animals
- Move furniture and electrical cords out of walking paths
- Keep your home well lit—use night lights especially on stairs and turn lights on when getting up during the night
- Sit in chairs that are easy to stand up from—low surfaces are hard to stand up from
- Keep items in easy to reach places—use a long-handled reacher if something is out of reach

Who and when to call for problems

Call 911 for:

- Passing out
- Sudden chest pain
- Shortness of breath that is getting worse

Call your surgeon for:

- Pain that is not getting better or gets worse
- Fever over 101.5° F
- Sudden calf pain and swelling
- Incision opening up or bleeding
- Incision becoming redder, hard, or has pus
- Urine (pee) that is cloudy or smells very bad
- Constipation that does not get better after taking a stool softener
- Not getting better as expected

Exercise

Exercises help you get well faster and bring back your strength. Do your exercises at least 2 to 3 times each day. Take slow, steady breaths as you exercise. Do NOT hold your breath. Start the exercises on this page on the day of your surgery. Start by repeating each exercise 10 times.



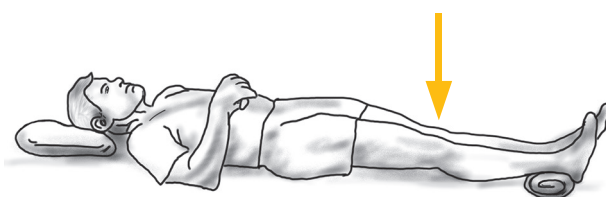
Ankle pumps

1. Lie on your back or sit in a chair.
2. Gently point and flex your ankles.
3. Repeat.



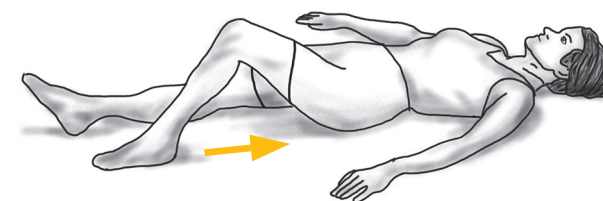
Straight leg raises

1. Lie on your back with your non-operated knee bent and foot flat
2. Keep your operated knee straight. Lift your leg 12 inches with your knee and toes pointed toward the ceiling
3. Lower your leg to the bed
4. Repeat



Quad sets (thigh squeezes)

1. Tighten the muscles on top of both thighs, and push the backs of your knees into the bed.
2. Hold 5 seconds.
3. Relax.
4. Repeat.



Heel slides

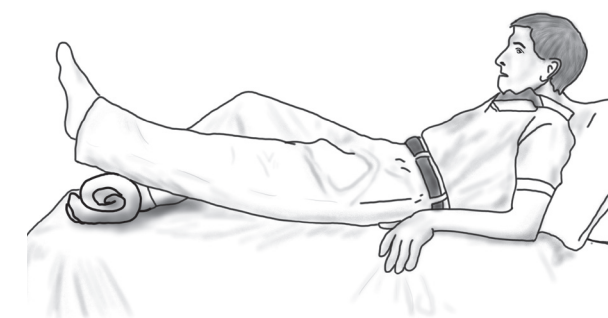
1. Lie on your back with your legs straight.
2. Bend your operated leg and slide your foot toward your body.
3. Straighten your leg slowly.
4. Repeat.

Day after surgery and beyond

Keep doing the exercises on page 14, repeating each exercise 15 times. Start doing the exercises below the day after surgery.

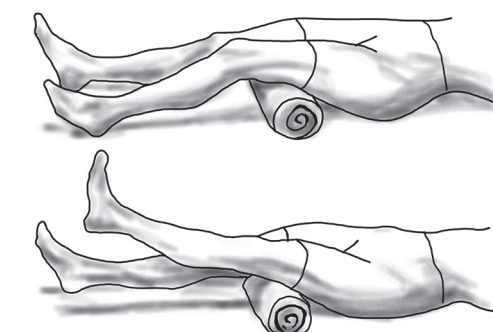
Extension stretch (knee stretch)

1. Lie on your back and put a rolled towel under the ankle of your operated leg
2. Keep your leg stretched in this position for 5 minutes
3. Slowly build up to 20 minutes in this position



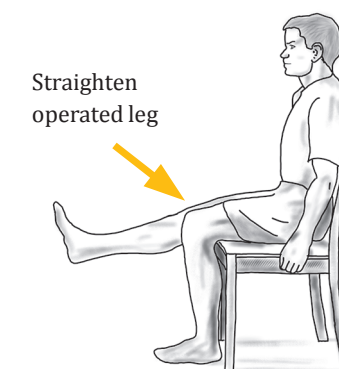
Short arc quads (kick ups lying down)

1. Lie on your back
2. Put a towel roll under your operated knee
3. Keep your thigh on the towel roll. Lift your foot up until your knee is straight
4. Repeat



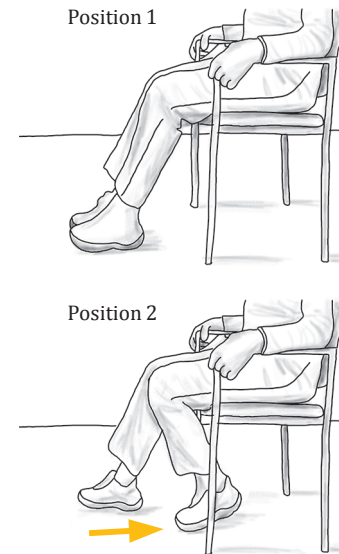
Long arc quads (kick ups sitting up)

1. Sit with your back comfortably against a chair back and put both feet on the floor
2. Straighten your operated knee so that your leg is straight out (parallel to the floor)
3. Lower your foot back to the floor slowly
4. Repeat



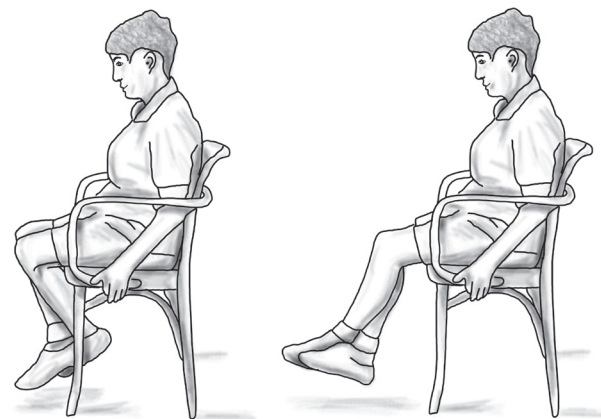
Seated knee flexion (knee bends)

1. Sit in a straight-back chair (position 1)
2. Keep your thighs on the chair and slide the foot of your operated leg under the chair as much as you can (position 2)
3. Gradually increase how far you slide your foot back under the chair to bend your knee more
4. Slide your foot back to position 1
5. Repeat 15 times



Assisted knee flexion (knee bends with extra push)

1. Start by doing the seated knee flexion exercise above
2. When you are done with the seated knee flexion exercise, cross your ankles with your operated leg behind the other leg. Try to gently push your operated leg back with your good leg
3. Repeat 5 more times



Everyday living

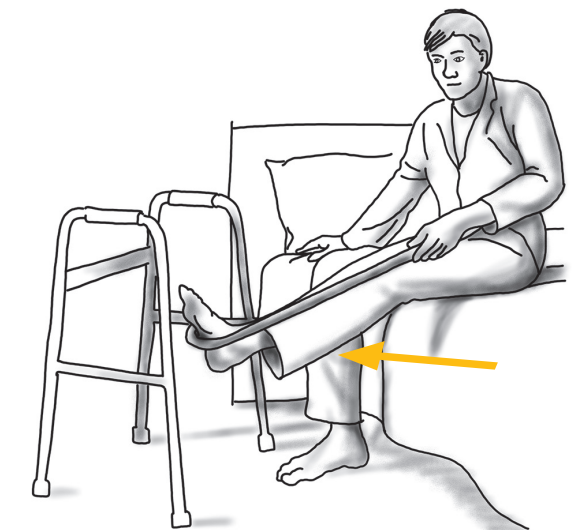
You may not need to change the way you do some of the following activities depending on your surgery. Talk to your therapist before leaving the hospital about what you need to do.

Getting into bed

1. Stand at the side of the bed halfway between the head and foot of the bed.
2. Back up to the bed until you feel the edge of the bed touch the backs of your legs.
3. Reach back, put your hands on the bed and slowly sit down on the bed.
4. Scoot your hips back toward the middle of the bed.
5. Once you are stable on the bed, move the walker out of the way, but keep it in reach.
6. First lift one leg and turn so your leg is on the bed. Then lift your other leg onto the bed. You can use a cane, rolled bed sheet, or belt to help lift your operated leg.
7. Move your hips toward the middle of the bed.
8. Lie back.

Getting out of bed

1. Sit up in the bed by pushing up with both arms.
2. Move your legs toward the side of the bed and turn your body to face the same direction.
3. Scoot your hips to the edge of the bed.
4. Lower your feet to the floor. You can use a cane, a rolled bed sheet, or a belt to help you lower your operated leg.
5. Use both hands to push yourself up off the bed. If your bed is low, put one hand on the walker as you push yourself up off the bed with your other hand.
6. Stand at the side of the bed with both hands on the walker before you start walking to make sure you are stable.



Getting in and out of a chair

Use a chair that has arm rests for 12 weeks after surgery.

Getting into a chair

1. Take small steps and turn until your back is toward the chair.
2. Slowly back up to the chair until you feel the chair against the backs of your legs.
3. Slide your operated leg forward.
4. Hold the arm of the chair with one hand and hold the walker with the other hand. Slowly lower your body into the chair.
5. Move the walker out of the way, but keep it within reach.



Getting out of a chair

1. Scoot your hips toward the front edge of the chair.
2. Hold the arm of the chair with one hand and hold the walker with the other hand. **DO NOT** put both hands on the walker while getting out of the chair.
3. Lift yourself off the chair.
4. Balance yourself before trying to walk.

Using the toilet

When sitting down on the toilet

1. Take small steps and turn until your back is toward the toilet.
2. Back up to the toilet until you feel it touch the back of your legs.
3. Slide your operated leg out in front as you sit down.
4. If using a toilet with arm rests, reach back for both arm rests and lower yourself onto the toilet.
5. If using a raised toilet seat without arm rests, keep one hand on the walker as you reach back for the toilet seat with your other hand.



When getting up from the toilet

1. Slide your operated leg out in front of you before you stand up.
2. If you are using a toilet with arm rests, put your hands on the arm rests and push yourself up, then move your hands to the walker.
3. If you are using a toilet without arm rests, put one hand on the walker and push off the toilet seat with your other hand.
4. Balance yourself before you start to walk.

Getting in and out of a walk-in shower

Always use nonslip mats both inside and outside of the shower for safety.

Getting into the shower using a shower chair

1. Back up to the shower lip. Feel the lip behind both heels.
2. Place the walker or crutches against the lip.
3. Push through your arms and step slowly over the lip with your good leg.
4. Step over the lip with your operated leg.
5. Turn, without twisting, so you face the faucet with a shower chair behind you.
6. Sit on the shower chair. Leave the walker or crutches outside of the shower.

Getting out of the shower using a shower chair

1. Use both hands to push yourself up from the shower chair to get to a standing position.
2. Turn toward the shower door so you are facing the walker. Use either a grab bar or place your hand flat against the shower wall for balance.
3. Place both hands on the walker.
4. Step up over the lip with your operated leg.
5. Step up and over the lip with your good leg. Balance yourself using the walker before trying to walk.



Getting in and out of the bathtub

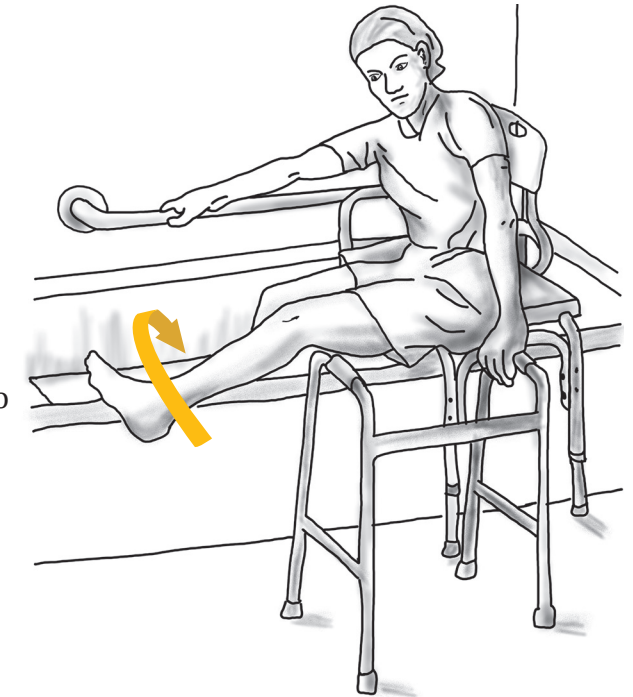
Always use a rubber mat in the tub. If you do not have one, put nonskid strips in the bottom of the bathtub.

Getting into the bathtub using a tub bench

1. Place the tub bench in the bathtub with the seat facing the faucets.
2. Stand in front of the tub bench and back up to the bathtub until you feel the edge of the tub bench behind your legs.
3. Reach back for the tub bench with one hand. Keep your other hand on the walker.
4. Slowly lower yourself to sit on the tub bench.
5. Move the walker out of the way, but keep it within reach.
6. Lift your legs one at a time over the side of the bathtub as shown in the picture.
7. Scoot your hips to the middle of the tub bench.

Getting out of the bathtub using a tub bench

1. Scoot your hips to the edge of the tub bench.
2. Lift each leg over the side of the tub – you may need to scoot your hips closer to the edge of the tub bench as you lift your legs over.
3. Turn your body so you are facing the walker.
4. Hold onto the walker with one hand. Use your other hand to push up on the back of the tub bench.
5. Stand up from the tub bench.
6. Balance yourself before trying to walk.



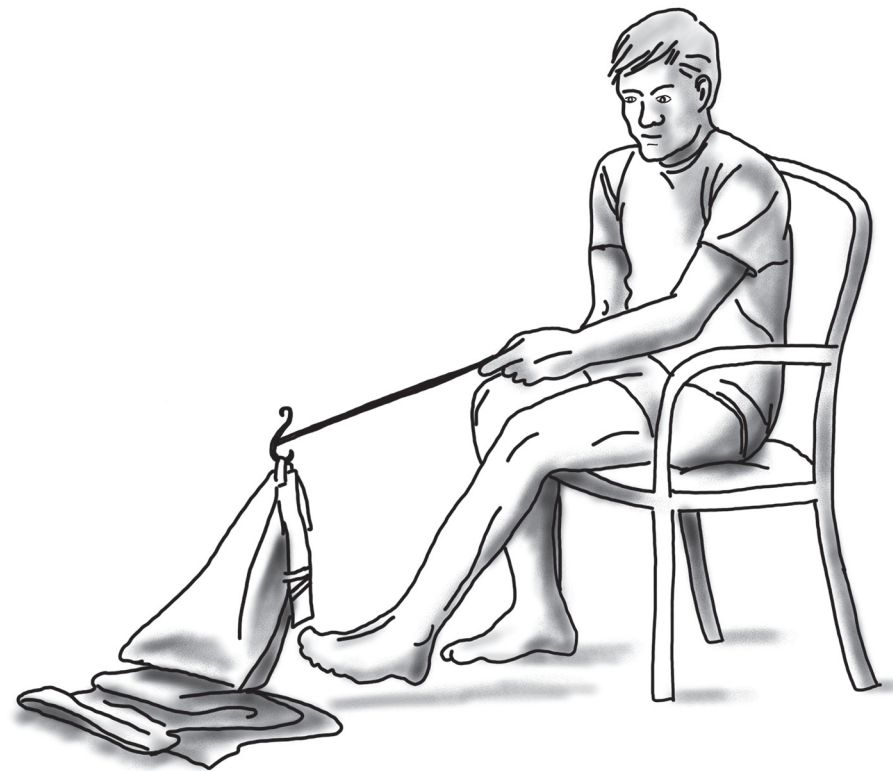
Putting on pants

Use a “reacher” or “dressing stick” to pull on pants and underwear.

1. Sit down. Have your walker within reach.
2. Grab the underwear or pants with the reacher.
3. Move the reacher so your clothing is by your feet.
4. First put your foot from your operated leg into the clothing, then put your other foot in.
5. Use the reacher to pull your pants up over your knees where you can reach them.
6. Stand up with your walker, then pull your pants up the rest of the way.

Taking off pants and underwear

1. Back up to the chair or bed where you will be undressing.
2. Undo your pants and let them drop to the floor.
3. Push your underwear down to your knees.
4. Keep your operated leg straight and lower yourself to sit on the chair or bed.
5. Use the reacher to help get your good leg and foot out of the pants and underwear. Next take your operated leg out of the clothing.
6. Use the reacher to move the pants and underwear off the floor so you do not trip over the clothes.



Putting on socks

Use a sock aid to put on socks.

1. Sit on a chair or bed. Slide the sock all the way onto the sock aid.
2. Hold the cords and drop the sock aid in front of your foot. It is easiest to do this if your knee is bent.
3. Slip your foot into the sock aid.
4. Straighten your knee, point your toe, and pull the sock on.
5. Keep pulling until the sock is on your foot and the sock aid hangs free.



Putting on shoes

Use a long-handled shoehorn to put on shoes.

1. Sit on a chair or bed.
2. Wear sturdy shoes or shoes with Velcro® closures or elastic shoelaces. **DO NOT** wear high heeled shoes or shoes without backs.
3. Use the long-handled shoehorn to slide your shoes in front of your feet.
4. Put the shoehorn inside the shoe against the back of the heel. Line up the curve of the shoehorn with the inside curve of the shoe heel.
5. Lean back if you need to, lift your leg, and put your toes in your shoe.
6. Step down into your shoe and slide your heel down the shoehorn.



Getting in and out of the car

1. Have someone move the front passenger seat all the way back to allow more legroom.
2. Lean the seat back if needed.
3. If you have cloth seat covers, put a plastic trash bag on the seat cushion to help you slide once you are seated.
4. Using your walker, back up to the front passenger seat.
5. Steady yourself with one hand on the walker.
6. With your other hand, reach back for the seat and lower yourself down keeping your operated leg straight out in front of you as shown in **Figure 1** below. Be careful not to hit your head when getting in.
7. Turn frontward and lift your operated leg into the car, as shown in **Figure 2**, below.
8. Put the seat back up in a sitting position if you leaned it back.
9. To get out of the car, reverse these steps.

Figure 1

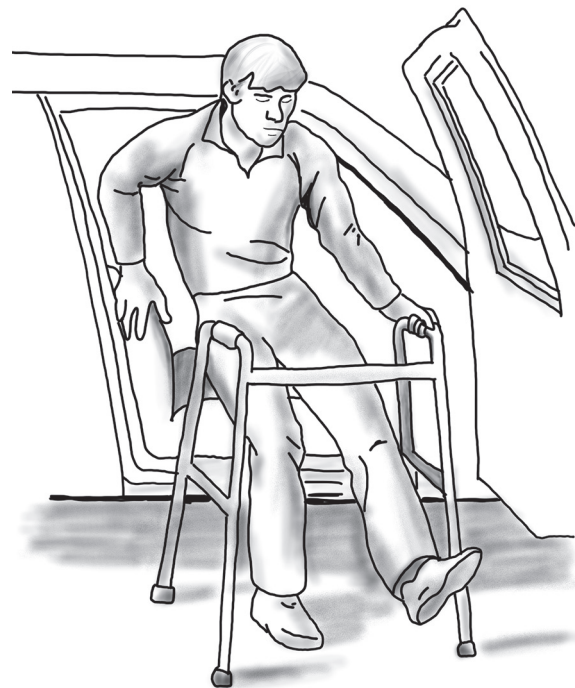
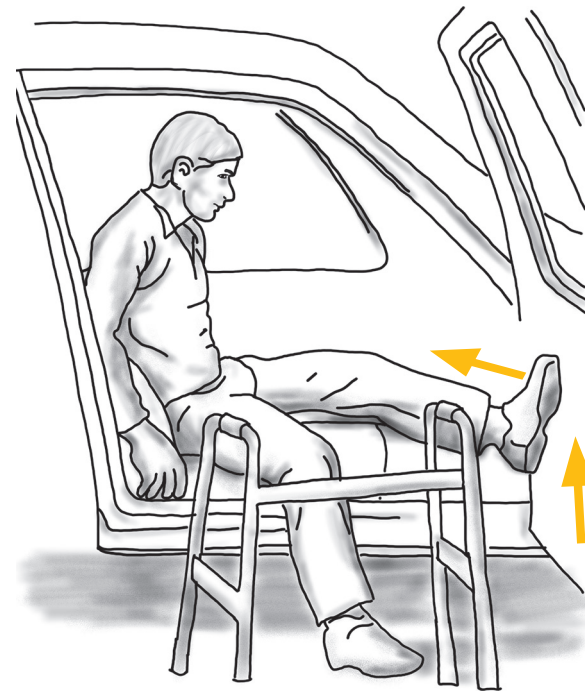


Figure 2



Going up and down stairs

Do not go up and down stairs until your doctor or therapist says it is okay.

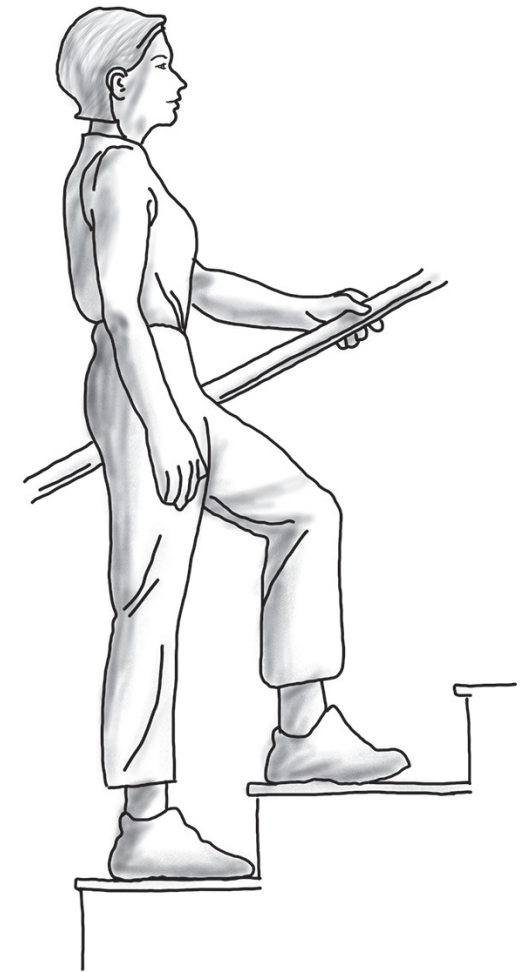
An easy way to remember which leg goes first is: up with the good, down with the bad.

Going up stairs

1. Using the handrail for support, start by placing your good leg up on the first step.
2. Bring the operated leg (bad leg) up to the same step.
3. Repeat until you reach the top.
4. **DO NOT** climb the stairs in the normal foot over foot way until your surgeon or therapist tells you it is safe.

Going down stairs

1. Using the handrail for support, place your operated leg (bad leg) down on the first step.
2. Bring your good leg down to the same step.
3. **DO NOT** go down the stairs in the foot over foot way until your surgeon or therapist tells you that it is safe.





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