

A man and a woman are standing on a dirt path, each with a bicycle. They are both wearing helmets and cycling attire. The woman is on the left, wearing a light blue long-sleeved shirt and black cycling shorts. The man is on the right, wearing a bright yellow-green long-sleeved shirt and grey shorts. They are both holding water bottles and looking at each other with smiles. The background is a natural, outdoor setting with dry grass and some greenery.

Your  
pathway  
to knee  
replacement  
recovery



**SSMHealth.**

Orthopedics

# Contact information

## SSM Health Orthopedics

608-294-6464

## Pre-op Clinic/Pre-op Coordination Services

608-260-3610

The Pre-op Clinic is located at SSM Health St. Mary's Hospital on level A near the Atrium Elevators.

## SSM Health Therapy Services

608-260-6004

Please check your MyChart® to review your required appointments for surgery and call to change these appointments if necessary. If you have appointments scheduled at a non-SSM Health location, you will need to call that location directly to change your appointments.

## Orthopedic Care Coordinator

Monday - Friday  
608-258-5286

## SSM Health Outpatient Center

2850 O'Keefe Avenue  
Sun Prairie, WI 53590  
608-282-2050

## Surgery check-in

You will receive a phone call or MyChart message the business day before your surgery to review the time to arrive the day of surgery.

The SSM Health Surgery Center is located on the first floor of the SSM Health Outpatient Center building. Enter through the main door and go to the left side of the main lobby near the security window to check in at a touch screen kiosk.

If you have any problems on the day of surgery, please call **608-282-2050**.

## Billing information

### Procedure cost estimates

Email: [price.estimate@ssmhealth.com](mailto:price.estimate@ssmhealth.com)  
844-989-6292

### Surgery billing

Website: [ssmhealth.com/resources/pay-my-bill](http://ssmhealth.com/resources/pay-my-bill)  
888-918-3512

Monday - Friday; 8 am - 5 pm

## Department of Health Information and Medical Records

608-294-6244  
877-510-1873 (option 1)

Mail, fax, or email disability or FMLA forms:  
SSM Health Information  
Attn: Disability Department  
P.O. Box 259840  
Madison, WI 53725-9840

Fax: 608-294-6280 or  
Toll Free Fax: 866-302-3326  
Email: [healthinformation@ssmhealth.com](mailto:healthinformation@ssmhealth.com)

## SSM Health Outpatient Center



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Bring your patient education booklet with you the day of surgery and to your therapy appointments.



# Welcome

Welcome to SSM Health Orthopedics, a first-class experience in patient care.

We are committed to the highest quality of clinical outcomes and patient satisfaction. We have a dedicated service line of surgeons, physician assistants, nurses, therapists, and support staff. We will provide education to you and your family to aid your recovery and rehabilitation.

Our goal is to prepare you to go home where you can return to a healthy and active lifestyle as quickly as possible.

This booklet provides an overview of what you need to know about your total joint replacement experience. Thank you for choosing SSM Health Orthopedics. We look forward to working with you!

## Our Mission

Through our exceptional health care services, we reveal the healing presence of God.

## Vision

Peace, hope, and health for every person, family, and community, especially those most in need.

## Values

Compassion | Respect | Excellence  
Stewardship | Community

[ssmhealth.com/orthopedics](http://ssmhealth.com/orthopedics)

About your surgery ..... 1

Preparing for surgery ..... 3

Day of surgery ..... 10

Therapy ..... 12

Discharge ..... 18

When to call your provider ..... 21

Frequently asked questions..... 23

## Important information/instructions:

# You must complete PRO questionnaires before joint replacement surgery.

If you are age 65 years or older, you are required to answer **Patient Reported Outcomes (PRO)** questions in MyChart® before your joint replacement surgery. All questions must be answered before surgery.

## How to access the questionnaires from SSM Health MyChart

Scan this QR code or visit [ssmhealth.com/mychart](https://ssmhealth.com/mychart) and select **ACCESS YOUR MYCHART** or **ENROLL IN MYCHART**.



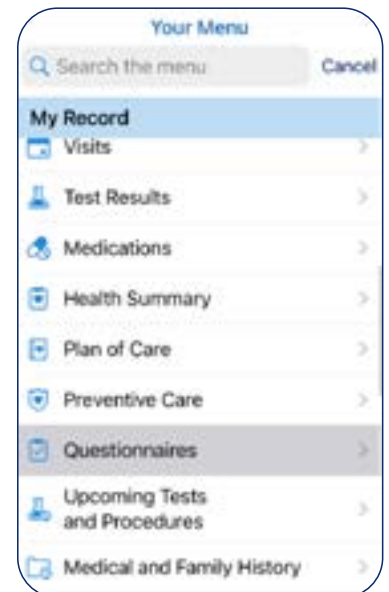
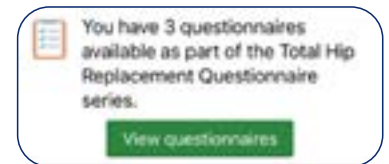
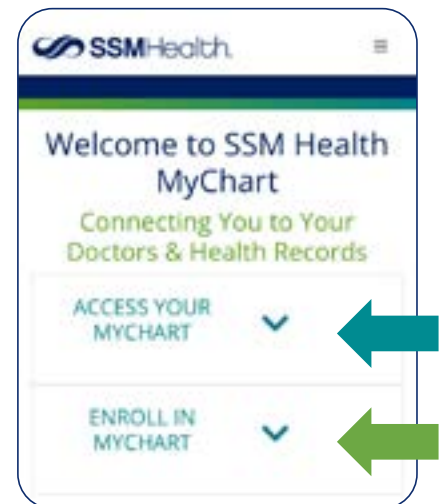
1. Once you are within 90 days of your scheduled surgery, or you have received notification from MyChart, log in to your **SSM Health MyChart** account with your username and password, using the link or QR code provided above.
2. On the **Welcome/home screen**, locate the link to the questionnaires on your list of notifications or click on the Menu icon at the top and select **Questionnaires**.
3. You are assigned questions in multiple short questionnaires. The questionnaire may be one or more questions. Complete all questions before surgery.

## Answering the PRO questions

Answer all questions. There are no right or wrong answers. Your surgeon will use this information to monitor your progress after surgery. If you are unsure, select the answer that seems right for today.

### One year after surgery

In addition to the questionnaires before surgery, you will receive a notification in MyChart approximately one year after surgery to answer additional questions about how your joint replacement currently feels. Medicare requires this additional survey to be completed by patients ages 65 years and older.



# About your surgery

Research has shown that patients who are educated about their surgery have better results. Read this booklet to help you prepare for your surgery.

## Basic anatomy of the knee

A joint is where two bones come together. The knee is a hinge joint where the thigh bone (femur) and the shin bone (tibia) meet. A healthy knee has smooth cartilage covering the ends of the thigh and shin bones. The cartilage allows the two bones to glide smoothly when you bend your knee. Your knee also has muscles and ligaments to stabilize the joint and support your body weight.

Cartilage can wear over time from arthritis or injury. This causes the ends of the bones to rub against each other and leads to pain, stiffness, limited movement, and difficulty performing normal daily activities.

## Knee replacement

Knee replacement surgery is a highly successful operation. Your surgeon removes cartilage and some bone damaged by arthritis or injury, and resurfaces the thigh and shin bones with metal and plastic components.

The primary purpose for knee replacement surgery is to decrease pain and increase movement of the knee joint which helps you return to normal daily activities.

## Your new knee

Artificial knee parts are made of metal (titanium, cobalt-chrome) and plastic (polyethylene). The metal parts are attached to the bone and the plastic parts replace your worn cartilage.

## Your surgical procedure

Your surgical procedure will take approximately one to two hours. You should plan to go home the day of your surgery or the day after your surgery with the help of an adult family member or friend. Your surgeon will discuss this with you before your surgery.



Normal knee



Arthritic knee



Knee replacement

## Therapy

Activity and exercise strengthen the muscles supporting the knee and improve knee motion. The therapy team will give you instructions about walking with the walker; transferring from bed, chair, and toilet; personal hygiene; and specific exercises to strengthen the muscles supporting your knee joint.

## Complications

When considering knee replacement surgery, you should be aware of potential complications associated with the procedure and the precautions that are taken to prevent them.

### Infection

Although this is a low risk, infection can be a major complication of surgery. Precautions to help prevent infection may include:

- Preoperative testing
- Antibacterial soap or wipes
- Frequent hand washing by patients, staff, and visitors
- Proper nutritional intake
- Following infection prevention instructions after discharge

Contact your surgeon's office if you develop a fever, flu/cold-like symptoms, or any open sores on your skin before your surgery.



### Blood clots

Development of blood clots, called deep vein thrombosis (DVT) is another complication, but this risk is small when precautions are taken. Precautions may include:

- The use of medications to thin the blood
- Compression devices to help circulate blood in your legs, ankle exercises
- Physical therapy

Regular activity with frequent movement is the best prevention of blood clot formation.

### Other complications

Nerve or vessel damage can occur, but these complications are extremely rare. Blood loss may occur during surgery, but blood replacement/transfusion rarely is required.

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A successful recovery requires your active participation in therapy and following all instructions from your care team before and after your surgery.

# Preparing for surgery

Your surgeon looks at your overall health before scheduling joint replacement surgery. If you have any condition that will increase your risk of complications after surgery, your surgeon may recommend seeing a specialist for clearance.

## Health and lifestyle changes before your surgery

### Uncontrolled diabetes

If you have been diagnosed with diabetes (or told you are pre-diabetic or borderline diabetic but are not on medication or under medical supervision), you have a higher risk of complications during and after surgery. Your surgeon may delay your surgery date to allow time for you to improve your blood sugar control.

You should monitor your blood sugar before and after surgery to maintain an acceptable range to promote optimal healing. If you need assistance with diabetic meal planning, ask your provider for a referral to an outpatient dietitian near you.

### Smoking

If you use tobacco products, now is the ideal time to stop. Research studies suggest that people who stop smoking at least 4 weeks before surgery have a faster recovery time and heal with fewer complications. Nicotine slows healing and increases chance of infection. Your surgeon may delay your surgery if you use nicotine.

Resources are available to help you with a smoking cessation plan. Please talk with your surgeon or nurse, or call the free coaching hotline at 1-800-QUIT-NOW.

### Long-term use of opioid pain medications

If you have been using narcotic (opioid) pain medication for your joint pain or other chronic pain condition, talk with your surgeon about ways to reduce opioid use before surgery. Pain control is one of our top priorities, but people who use opioids for pain before surgery have more difficulty managing postoperative pain.

It is ideal to stop use of opioid medication before your surgery.

### Nutrition for surgery recovery

Good nutrition is important before and after surgery to support your body's response to surgery and recovery, to maintain lean muscle and strength, and to reduce the risk of complications and hospital readmission. Starting now and for 4 weeks after surgery, eat 5-6 small meals with protein in each meal (unless your doctor restricts high protein). If you are unable to eat food for a meal, drink a nutritional supplement.

We recommend a high-protein, anti-inflammatory diet to optimize recovery. Some suggestions include:

- Eat fruits and vegetables.
- Snack on nuts every day.
- Choose lean proteins such as fish, poultry, and beans more often than red meat.
- Choose heart-healthy fats such as olive oil, canola oil, or avocado oil.
- Use herbs and spices instead of salt.
- Switch to whole grains rather than foods with refined (white) flour.

### Nutritional supplements

When you don't feel well, which may happen before or after surgery, it can be difficult to get all the nutrients you need from food.

Nutritional supplements can provide the protein, vitamins, and minerals you need to prepare for surgery, and to help your body recover after surgery.

You may wish to try over-the-counter products such as Premier Protein®, Ensure®, Boost®, Carnation Breakfast Essentials®, or store-brand versions at a reduced cost.

### Dental work

Any necessary minor dental work, routine cleaning, or a dental checkup should be completed at least 7 days before your joint replacement surgery.

If you need major dental work, please discuss this with your surgeon, including treatment for an infected or abscessed tooth. Scheduling a date for surgery will be delayed to allow time for sufficient healing.

It is usually recommended that you avoid dental work for at least 3 months after your joint replacement.

After your surgery, please check with your surgeon about the necessity of taking antibiotics before going to the dentist.

### Preoperative exercises

Strong leg muscles are key to a successful recovery. Exercises are performed to help prepare your leg muscles for the surgery.

Beginning now, please do exercises 1-6 on pages 13-15. Do these exercises one to two times each day, 10-15 repetitions each, as tolerated, until your surgery.



### Surgery scheduling

The staff at your surgeon's office will schedule your surgery and will instruct you about any preoperative testing required before surgery. You will receive a phone call or a MyChart message the business day before your surgery with the information about the time of your surgery and the time to arrive on the day of your surgery.

You should plan to go home the day of your surgery or the day after surgery with the help of an adult family member or friend. If you have concerns about your recovery at home, please discuss your concerns with your surgeon before surgery.

### Joint replacement education

In addition to reading this booklet, you also will learn more about your surgery during a preoperative patient education class. The class will discuss how to prepare for surgery and what to expect after surgery and during the recovery period. The staff at your surgeon's office will provide details about the class.

## Support after surgery

Your surgeon requires that you have a responsible adult family member or friend who will be willing and able to:

- Drive you home when you are discharged after surgery.
- Stay with you at your home for at least the first week, or their home if needed, after surgery.
- Help you with meals, errands, and transportation for the first few weeks you are home after surgery.
- Help you with your therapy exercises as well as activities of daily living (dressing and bathing).
- Drive you to any therapy appointments and to your first postoperative clinic appointment.

## Preoperative evaluation

When you are scheduled for joint replacement surgery, you will be directed to see a provider **14-30 days** before your surgery date to allow enough time to review your testing results and avoid possible cancellation of your surgery.

Preoperative testing may include laboratory tests. Surgeons require medical clearances before your surgery and also may require cardiac and/or dental clearance before surgery.

## Nasal screening

Exposure to bacteria or germs that are present inside and outside of the hospital can cause infection in your joint. Your surgeon may test for two types of bacteria: Methicillin Resistant Staphylococcus aureus (MRSA) and Methicillin Sensitive Staphylococcus aureus (MSSA).

These common types of bacteria are often found on your skin and may be present in your nose. To identify and properly manage staph bacteria, we may need to obtain a nasal swab before your surgery.

## Medications

You will receive specific instructions about when to safely stop your medications before your surgery.

### All **blood-thinning medications** need to be discontinued as directed before surgery

including, but not limited to: Coumadin® (warfarin), Plavix® (clopidogrel), Pradaxa® (dabigatran), Eliquis® (apixaban), Savaysa® (edoxaban), Xarelto® (rivaroxaban), Effient® (prasugrel), and Brilinta® (ticagrelor).

**Aspirin** or aspirin-containing products such as Excedrin® should be stopped 7 days before your surgery. If a provider prescribed the aspirin, please call that provider for specific instructions about stopping it before surgery.

Your prescribing provider does not need to be contacted, but the following medications also thin your blood and should be stopped 3 days before surgery:

- **Prescription anti-inflammatory drugs** such as Clinoril® (sulindac), Feldene® (piroxicam), Mobic® (meloxicam), Naprosyn® (naproxen), Celebrex® (celecoxib), Voltaren® (diclofenac sodium), Arthrotec® (diclofenac sodium), or rheumatoid arthritis medications such as Trexall® (methotrexate)
- **Non-prescription anti-inflammatory drugs (NSAIDs)** such as Advil®, Aleve®, ibuprofen, or naproxen

All **herbal medications** need to be stopped 7 days before surgery including, but not limited to: fish oil, flaxseed oil, primrose oil, ginkgo, echinacea, St. John's wort, melatonin, turmeric, glucosamine and chondroitin, vitamin E capsules, weight-loss medications, and CBD oil.

You may take **Tylenol®** (acetaminophen) medications for pain or headache any time before surgery if you are not allergic or sensitive to Tylenol. Do NOT take if you have a history of liver disease, allergy, or instructions to avoid it.

### Other medications

**Unless otherwise instructed, all your other prescription medications should not be stopped and should be taken exactly as prescribed until midnight, the night before surgery.**

If you have diabetes, please talk to your primary care provider about eating instructions and taking your diabetic medication the night before and the morning of your surgery.

You will need to bring your inhaler and prescription eyedrops on the day of surgery. **Unless instructed, do not bring any of your other medications.** Your provider will order appropriate home medications to be given to you after surgery.

### Avoiding and relieving constipation

Many factors contribute to constipation, including a sedentary lifestyle, use of pain medication, and poor nutrition. Physical activity, hydration, and a diet high in fruits and vegetables that naturally contain fiber and a high water content will assist bowel health.

**Pain medications** that cause constipation include: Norco® (hydrocodone with Tylenol), Percocet® (oxycodone with Tylenol), Oxy-IR® or OxyContin® (oxycodone), Tylenol with codeine, Ultram® (tramadol), and Ultracet® (tramadol with Tylenol).



### Signs of constipation

- Bowel movements are less often than normal.
- Stools are small, dry, and hard to pass.
- Prolonged constipation can cause stomach pain, nausea, or vomiting, and feelings of confusion.
- Call your doctor if any of these symptoms occur.

### Suggestions to relieve constipation

- Drink at least eight glasses of water every day (unless your fluid intake is restricted by your doctor).
- When you feel the urge to use the bathroom, don't hold it.
- Avoid using bulk laxatives (Metamucil®, psyllium).
- Do not eat foods with high fat or sugar content.
- Eat foods to get 25-30 grams of fiber every day (e.g. black beans, All-Bran® cereal, peas, bananas).

The following medications are recommended to prevent constipation while using opioid medications for pain control:

- Take a stool softener twice daily while taking opioid pain medication.
- Take a stimulant laxative twice daily (Senna®, dulcolax tablets, milk of magnesia, or cascara with or without Colace®). If diarrhea develops, take only at bedtime.
- Use Miralax® daily at bedtime. If diarrhea develops, use every other day.
- If the above treatments are unsuccessful, try an over-the-counter rectal intervention (first, a glycerin suppository; if unsuccessful, an enema).

**To help avoid problems after surgery, make sure you are not constipated when you arrive for surgery.**

### Living will/advance directive

- A staff member will ask you about advance medical directives, which are decisions you make about life-support treatments.
- These directives include:
  - **Living will** (your wishes regarding withdrawal of life support if you are not able to communicate).
  - **Do not resuscitate** order (DNR)
  - **Durable power of attorney** for health care (allows you to appoint someone to make health care decisions for you if you are unable to make these decisions).
- If you need assistance with completing or updating an advance directive, please contact your primary care provider or discuss this at your preoperative evaluation.



### Equipment

Your care team may discuss equipment needed for your care at home. A two-wheeled walker is normally the walking aid needed after surgery. We suggest you borrow a walker because you will use it for such a short time. Please bring a walker with you on the day of your surgery.

Additional adaptive equipment items may allow you to be more independent with dressing and bathing. These items usually are not covered by insurance, so your care team will help to decide which equipment is necessary for your recovery.

### Preparations for going home

Before you go home, your care team will help to make sure you are able to go up and down a few steps, go to and from the bathroom, and move around safely.

Most patients are ready to be discharged directly home after surgery. If you live alone, it is best to plan to have family members and/or friends help you with meals, laundry, errands, etc., for at least the first week after you are home. You also may need help with simple daily tasks like dressing and bathing.

You cannot drive for a few weeks after surgery. Plan ahead for someone to drive you as needed.

## Avoid a fall with these precautions

Prepare your home before surgery to avoid hazards that could cause a fall after surgery.

- Clear walkways, remove throw rugs and floor clutter, fasten loose carpet or flooring, move electrical and phone cords, and make sure a walker can fit into the space around your bed and chair and into your bathroom.
- Make sure lighting is bright at the entrance and in your home where you will be walking, and that light switches are accessible at room entrances and at the top and bottom of stairs. Replace any dim or missing light bulbs in overhead lights or lamps, install night lights, and place a flashlight near your bed and chair for emergency.
- Check that handrails are sturdy along stairs, and that steps and door thresholds are marked and visible.
- Remember, some medications can make you dizzy, drowsy, or unsteady. Take medications as directed and eat as instructed with medications.
- Ensure that your bed height is set to allow your feet to touch the floor as you sit on the side of the bed. Raise or lower bed height for ease of getting into bed and standing up from the bed.
- Move all necessary items you will use to an area between waist and shoulder height so you won't need to bend over, especially in the kitchen and bathroom.
- Wear supportive shoes and use your assistive device as needed.
- Avoid sitting in chairs that rock, swivel, or roll. If a seat is too low or has a soft cushion, use a foam cushion to firm and raise the seat height.

## Preoperative skin preparation

Do not shave your surgical area as instructed by your surgeon.

Follow instructions for skin cleansing provided by your surgeon to decrease bacteria on your skin and help prevent infection. If you are allergic to chlorhexidine, use a clean bar of soap.

After you shower, do not use any lotions, deodorants, makeup, powders, or cream unless instructed by your surgeon.

Change your bed sheets the night before surgery and wear clean clothing to bed.

## Preoperative clear liquids

Certain liquids are allowed before your scheduled surgery time. Studies have shown that drinking liquids before your surgery can help your recovery after surgery. Your surgeon's office will give instructions for hydration before surgery.

## Medications the morning of surgery

If you are instructed to take any medications the morning of your surgery, please swallow these with a clear liquid.

## Diabetic medication instructions

If you have **diabetes**, please follow instructions from your primary care provider or your endocrinologist about your diabetic medications the morning of your surgery.

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**Do not** eat anything after midnight the night before surgery.

**Do not** chew gum or eat candy or mints.

**Do not** drink alcoholic beverages for 24 hours before surgery.

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# Checklist

## What to bring the day of surgery

### ❑ **Driver's license and medical insurance card**

You will need to bring your driver's license for identification and your insurance cards for check-in the day of surgery.

### ❑ **Clothing**

Please bring a change of clothing and a pair of sturdy shoes for walking. You may also bring pajamas or a nightgown.

### ❑ **Walker**

Please bring a two-wheeled walker. Therapy staff will adjust the walker for you before you go home.

### ❑ **Miscellaneous items**

Please bring your dentures, hearing aids, and glasses/contact lenses. They will be removed before you go to surgery, and will be returned to you after surgery.

### ❑ **CPAP/BiPAP machine**

If you use a CPAP or BiPAP machine at home, please bring your machine on the day of surgery.

### ❑ **Medications**

Please bring your prescription eye drops and inhalers. Bring a complete list of your current medications but do not bring the medications.

### ❑ **Education booklet**

Please bring this education booklet with you on the day of surgery. Your care team may use it to review information before you go home.

### ❑ **Advance directives**

Please bring your durable power of attorney for health care and living will on the day of surgery if one is not listed in your medical record.

## What not to bring the day of surgery

### ❑ **Wallet or money except copayments**

Please do **not** bring a wallet, money, or any other valuables with you except for necessary copayments.

### ❑ **Jewelry or any other valuables**

Please remove all jewelry, including wedding bands and earrings or any other piercings, and leave them at home.

# Day of surgery

Do not wear nail polish or artificial nails or they will be removed before surgery.

If you wear contact lenses, dentures, or hearing aids, you will be asked to remove them before surgery.

## Anesthesia

The two common types of anesthesia for total joint replacement surgery are regional anesthesia and general anesthesia. A staff member from the anesthesia department will review your medical history and recommend the best anesthesia type for you on the day of your surgery.

**Regional anesthesia** is medication injected into the body (spinal and/or local blocks) to produce temporary numbness and loss of pain and sensation during your surgery. Medications to help you relax will also be administered through your IV during your surgery.

**General anesthesia** is medication administered through your intravenous (IV) site and from anesthesia gases. After you are asleep, a tube is placed in your throat to assist with your breathing and it is removed before you wake up. Your throat may be slightly sore and you may experience a hoarse voice for a short time after surgery.



## Procedure

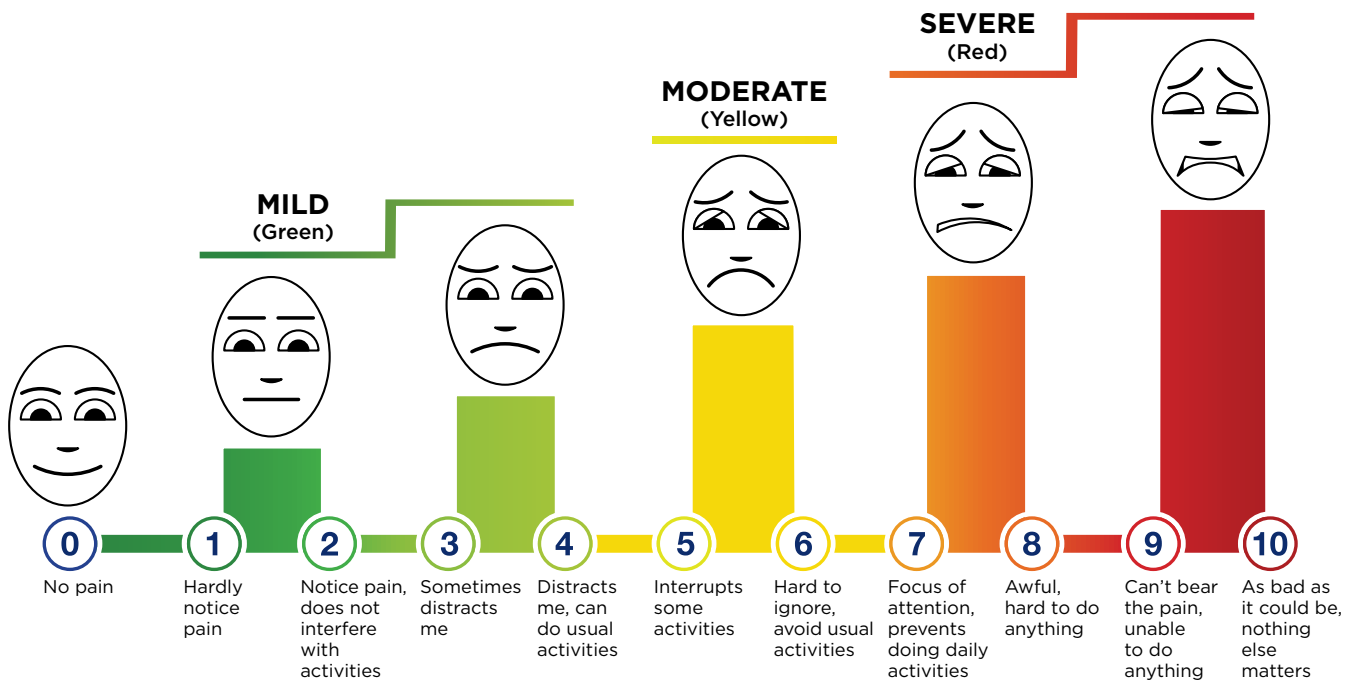
Surgery usually takes 1-2 hours. Your surgeon will talk to your family member or friend after the procedure.

You may experience blurred vision, dry mouth, chills, or nausea when you wake from anesthesia. You also may have a sore throat if a breathing tube was placed in your throat.

## Activities after surgery

Our goal is for you to get out of bed, sit up in a chair, and walk with assistance from a nurse or physical therapist on the day of surgery.

For your safety, and to prevent falls, do not get up by yourself without assistance from your care team.



## Pain medication and pain control

- After surgery, your nurse will ask you to describe your pain on a scale of 0-10 using the diagram shown.
- You will receive medication and cold therapy to help control your pain after surgery.
- Additional ways to manage discomfort include deep breathing, elevation, and muscle relaxation.
- Our goal is to keep your pain at a tolerable level, but you should expect some degree of pain at the surgical site.
- The amount and intensity of pain that a person feels differs from one person to another since patients respond differently to pain medications.
- Ask your nurse for medication when your pain is present and before it gets severe or out of control.

- Different types of medicine are given based upon the degree of pain.
- Please tell your nurse if your pain medication is not providing enough relief, or if you don't like the way it makes you feel.
- Opioid medications may cause itching, nausea, constipation, and confusion. We will try to minimize these normal side effects.
- If you use opioid medication for pain control before surgery, your pain will be more difficult to control after surgery. Please discuss this with your surgeon.

## Breathing exercises

- Bed rest, drowsiness, anesthesia, and pain can make it more difficult for you to take normal deep breaths.
- It is important for you to breathe deeply to help keep your lungs clear and avoid complications such as pneumonia.

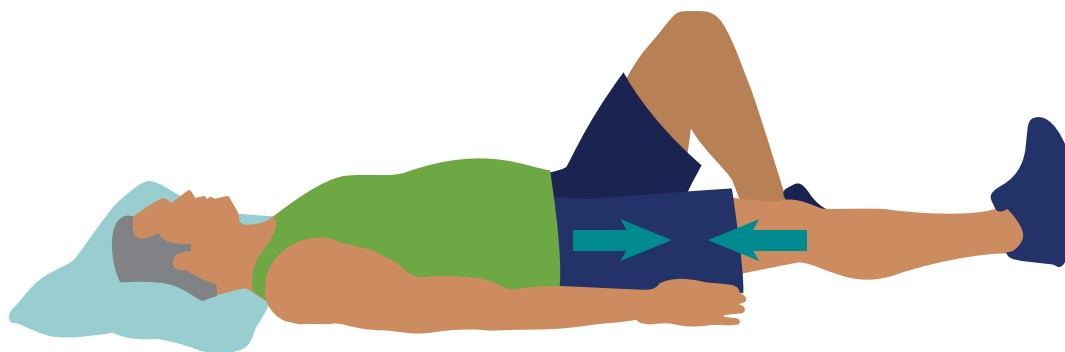
# Therapy exercises

Therapy exercises are essential before and after surgery. Strong leg muscles and good range of motion are important for a successful recovery. **Before surgery**, do exercises 1-6, one to two times a day, 10-15 repetitions each. **After surgery**, do all the exercises two times a day, 10-15 repetitions each, as tolerated. During your recovery, your physical therapist may adjust your exercise program based on your specific needs or surgery type.

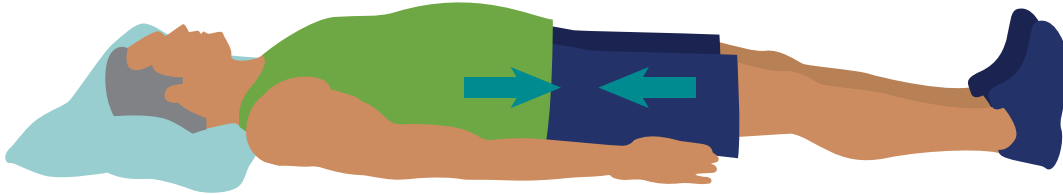
- 1 Ankle pumps** — Bend your ankles up and down. (Note: This exercise can be done every hour, 10-20 repetitions).



- 2 Quad sets** — Press your knee straight by tightening the muscles on the top front of your thigh while trying to push your knee toward the floor. Hold for five seconds. Do not hold your breath. (Note: This exercise can be done every hour, 10-20 repetitions).



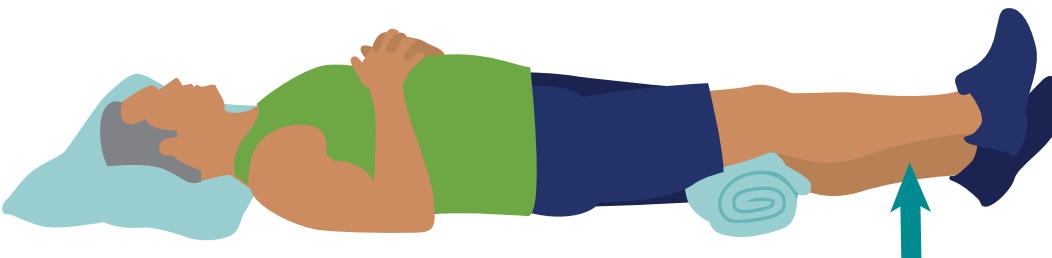
- 3 Glute sets** — Squeeze your buttocks muscles together. Hold for five seconds. Do not hold your breath. (Note: This exercise can be done every hour, 10-20 repetitions).

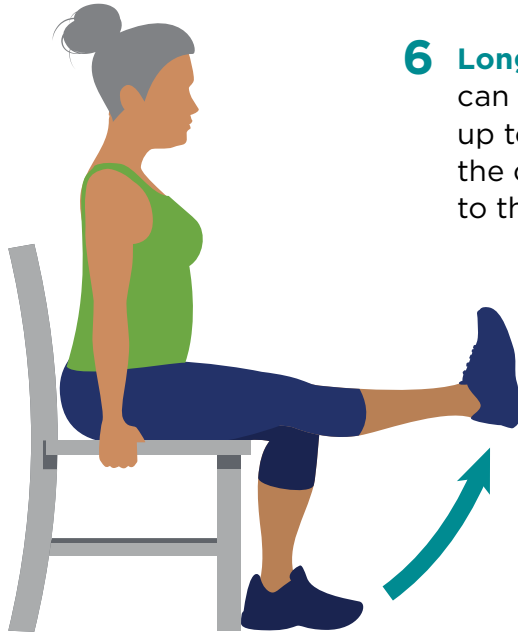


- 4 Heel slides** — Slide your heel up toward your buttocks, bending your knee. Return it to the extended position, sliding your heel along the bed until your knee is no longer bent. You may use a strap around your foot/ankle to help your knee to bend.

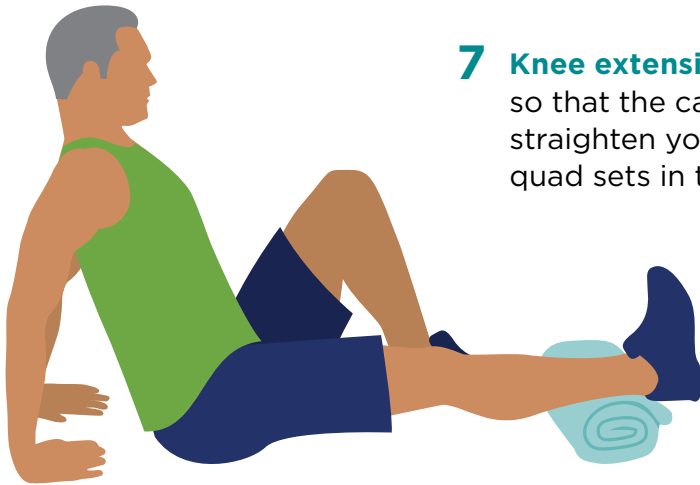


- 5 Short arc quads** — Place an 8" roll under the knee of your surgical leg. Lift the foot from the surface to straighten your knee as much as possible. Do not raise your thigh off the roll. Hold for five seconds. Do not hold your breath.





**6 Long arc quads** — Sit as far back in the chair as you can to have your thighs fully supported. Lift your foot up to straighten the knee. Do not raise your thigh off the chair. Hold for five seconds. Slowly lower your foot to the floor.



**7 Knee extension stretch** — Place roll under your ankle so that the calf is unsupported. Allow gravity to help straighten your knee. If you are able, you can perform quad sets in this position.



**8 Seated knee flexion stretch** — Scoot forward slightly in the chair so that your knees are not against the seat. Place your operative foot on something smooth (e.g. pillowcase, hand-towel) and slide your foot back as far as possible, holding for five seconds. Relax. The stretch should be uncomfortable but not so painful that you cannot talk or breathe.

## Walker use, transfers, and stairs

After your surgery a therapist will help you with assistive device and transfer training. Please also watch the training videos using your smart phone or tablet camera to scan the QR code. These videos demonstrate how to use a walker to go up and down steps and stairs; how to safely transfer to car, bed, toilet, and shower; and how to use assistive devices.



### Physical activity general instructions

1. Walk slowly and carefully, putting weight (weight bearing) as tolerated on your affected leg.
2. Use your walker until your therapist progresses you to use a cane.
3. Have someone walk with you until you feel steady on your feet, especially when you go up or down steps or walk on uneven surfaces.
4. Remove loose rugs or other small obstacles from the floor which could cause you to trip or fall.

### To stand up

1. Be sure your walker is directly in front of you.
2. Scoot to the front of the surface you are sitting on.
3. Do not pull up with the walker.
4. Push up using an arm rest or surface to stand.
5. For comfort, place your affected leg forward and stand up on your unaffected leg.
6. When you are balanced or feel steady on your feet, place your hands on the walker.

### To walk

1. Roll the walker to a comfortable distance in front of you.
2. Take a step with your affected leg and then take a step with your unaffected leg.

### To sit down

1. Back up until you feel the surface on the back of both legs.
2. Place the affected leg forward for comfort.
3. Reach back for the armrests or surface.
4. Slowly lower to sitting, allowing the affected leg to slide forward as needed for comfort.

### To go up one step forwards

1. Walk to the step. Be sure your walker is touching the step.
2. Lift the walker and place all four legs of the walker on the step.
3. Push down on the walker with your arms and step up on the step with your unaffected leg. Then, bring your affected leg up on the step.

### To go down one step forwards

1. Walk with your walker up to the edge of the step.
2. Place all four legs of the walker on the floor in front of the step.
3. Walk your feet up to the edge of the step.
4. Push down on the walker with your arms and step down with your affected leg and then step down with your unaffected leg.

### To go up one step backwards

1. Back yourself up to the step with your walker. Be sure your walker and your heels are touching the step.
2. Push down on the walker with your arms and step up on the step with your unaffected leg.
3. Bring your affected leg up on the step, then bring your walker up on the step.
4. When you reach the top, walk backwards with the walker a few steps and then turn around with the walker.

### To go up stairs

1. Put your feet close to the step.
2. Use assistive devices, if available, as instructed by your therapist, such as rails, crutches, cane, handheld assistive device, or gait belt.
3. Go up one step at a time. Lead or start with your unaffected leg first, then bring up the affected leg to the same step.
4. Proceed with remaining steps in the same fashion.



### To go down stairs

1. Place your feet close to the edge of the step.
2. Use assistive devices, if available, as instructed by your therapist, such as hand railings, crutches, cane, handheld devices, or gait belt.
3. Go down one step at a time starting with your affected leg first and then bring down the unaffected leg to the same step.
4. Proceed with remaining steps in the same fashion.

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**Remember!** "Up with the good, down with the bad." Go up with your unaffected leg first, and down with your affected leg first. As your muscles get stronger and your motion improves, you will be able to go up and down stairs in a more normal fashion.

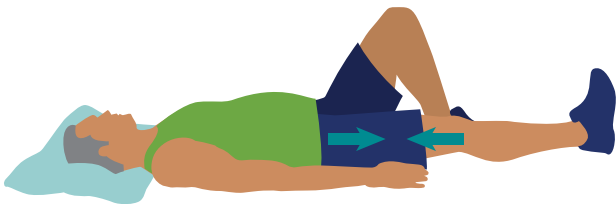
# Total knee replacement exercises

## Quick reference sheet

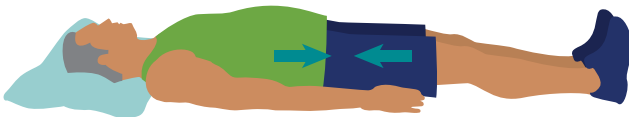
**1** Ankle pumps



**2** Quad sets



**3** Glute sets



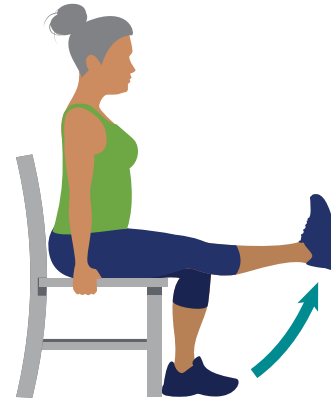
**4** Heel slides



**5** Short arc quads



**6** Long arc quads



**7** Knee extension stretch



**8** Seated knee flexion stretch



# Discharge

## Discharge instructions

- Arrange for someone to drive you home when you are discharged after surgery.

## Medications

- Patients usually take some kind of pain medication for 1-2 weeks after knee replacement surgery. Every week you should decrease the amount of prescription pain medication used.
- Prescriptions and instructions for pain and blood thinning medications will be given to you when you are discharged.
- All medication refills, including pain medication, will only be handled during regular office hours.
- Please contact your surgeon's office two to three days before you need a prescription refill.
- Based upon your medical history, your surgeon will determine the type of blood-thinning medication you need to take and length of time you need to take it.

## Constipation

- Pain medications and lack of activity may cause constipation after surgery. You will be given instructions about medications to help with constipation.
- Drink plenty of fluids and choose foods high in fiber, such as fruits and vegetables, during your recovery. Refer to the recommendations on page 6 and 7.

## Care for your incision

- Your skin will be closed with glue-like adhesive or staples.
- If your skin is closed with staples, they will be removed approximately 2 weeks after surgery.
- A dressing is applied to protect the incision.

- You will be given instructions when it's safe to shower after surgery. NO tub baths.
- If you see redness that is new/rapidly changing, or if redness is associated with fever, chills, or drainage from your incision, call your surgeon's office.
- Please follow all instructions from your care team on how to care for your dressing.
- Do not use lotion on your incision until you check with your surgeon.

## Preventing infection

- Do not touch or pick at your surgical dressing. Follow all incision care instructions.
- If you are instructed to change your surgical dressing, wash your hands before and after dressing changes.
- Use proper hand washing after toileting, after blowing your nose, and before and after eating.
- Do not allow pets near your surgical site or dressing.
- Always use care when toileting so the incision area is not contaminated with waste. Use clean toilet tissue and wipe from front to back until clean. Wash your hands with soap and water.
- Shower as instructed, NO tub baths.
- Always use a clean washcloth to clean the skin around the incision. Always use a clean towel to pat dry the area around the incision. Do not use the same washcloth or towel around your incision that you use on your body for at least 6 weeks.
- Wear clean clothes and wash your bedding frequently. Replace any soiled bedding immediately.
- Ask your surgeon if antibiotics should be taken before any dental work after your surgery.

## Activity after surgery

- Continue your therapy exercises as recommended by your therapist. Ask if you should change or modify your home exercise program as you heal and recover.
- Walk 3-5 times each day with your walker until you feel moderately tired, your pain increases 1-2 points or your joint “loosens up.” Start with shorter distance walks throughout the day. As you recover, you will be able to increase the distances you are able to walk.
- To help with stiffness and prevent blood clots, stand and walk short distances every hour during the day.
- Periods of rest after activity are important for your recovery.
- When resting in a seated position, keep your legs elevated to prevent swelling from moving down your legs. You should only have your feet down for a maximum of 20 minutes at a time.
- Use your walker for stability and support, your therapist will help you determine how long to use it.
- If you have stairs at home, you may go up and down your stairs as tolerated, once or twice a day.

## Doing your exercises at home

- Do the seated exercises on a bed with the leg you had surgery on along the edge of the bed. Have someone help you. Do not do exercises on the floor.
- Take pain medication as needed 1 hour before the exercise session. Do not use ice 30 minutes before exercise.
- 10-15 repetitions of each exercise is best. If exercises are causing too much pain, do fewer repetitions.

## Equipment for home exercises

- Use a plastic bag with a towel on top of it or a flat cookie sheet under your surgical leg to help your leg slide while doing the leg bending exercises.
- Use a beach/large bath towel rolled up, a large coffee can with towel wrapped around it, or a 2-liter bottle of soda with a towel wrapped around it to support your knee for the straightening exercise. You want something 8-10 inches thick when the weight of your leg is on it.
- Use a flat sheet or belt as a strap to help your leg move as needed.

### Goals for the first two weeks

- Use a walker for walking and standing. Your therapist will help you decide when you can use a cane.
- You should be able to bend your knee to 90 degrees and straighten your knee fully.
- Take sponge baths or shower on your own if your surgeon allows it.
- Do each of your home exercises 2 times per day.
- Complete your edema mobilization if directed by your therapist.

## Home exercise program

1. Ankle pumps
2. Quad sets
3. Gluteal sets
4. Heel slides
5. Short arc quads
6. Long arc quads
7. Knee extension stretch
8. Seated knee flexion stretch

**Do exercises 1-3 every hour you are awake.**

## Swelling

Swelling is normal after surgery and may continue for up to a year after your surgery.

### To manage swelling

#### Cold therapy

- Remove cold therapy 30-60 minutes before therapy exercises.
- Apply cold therapy for 20-30 minutes after therapy exercises and distance walking.
- Use throughout the day and at night as instructed by your care team until swelling and pain improves.

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Do not apply heat to your surgical incision until discussed with your surgeon or therapist.

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## Elevation

- Elevating your surgical leg will help to move fluid toward your heart. (This illustration shows you how to elevate your surgical leg.)



- When resting, remember to keep your ankle higher than your knee and your knee higher than your hip. Do not put a pillow directly under your knee. Bending the knee too long can create stiffness.

#### Manual edema mobilization

Do these exercises 5 times per day if provided and instructed by your therapist.

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## When to call your provider

We want to help you avoid an unnecessary ER visit or hospital readmission. Call your surgeon's office immediately if any of the following signs or symptoms occur after surgery:

- Shortness of breath with no known cause.
- **Wound concerns:**
  - Increase in redness, separation, or gap along the edges of the incision.
  - Drainage that is increasing, foul smelling, an unusual color, or that continues more than seven days after surgery
- **Signs of a blood clot:**
  - Pain, redness, or excessive tenderness in your leg or calf.
  - Excessive swelling in your foot, ankle, calf, or thigh
  - Pain that does not improve with medication, ice, and elevation
- Fever higher than 101 degrees F
- Blood in the stool or urine; burning feeling when urinating
- Constipation not relieved by use of over-the-counter laxatives or stool softener
- Nausea or vomiting caused by pain medication
- Trouble tolerating physical therapy or your exercises

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All medication refills, including pain medication, will only be handled during regular office hours. Your surgeon requires 48-72 hours (two to three business days) advance notice for refill requests.

## Return to driving

- Do not drive if you are taking prescription opioid pain medication.
- Do not drive until advised by your surgeon or therapist at your follow-up appointments.
- Depending on your recovery, you may not be cleared to drive until 4-6 weeks after surgery.

## Return to work

- If your work is sedentary, such as an office job, you may return to work about three to four weeks after surgery. You should still elevate your leg to help with swelling.
- If your work requires that you spend most of the time standing, walking, or climbing, it may take up to three months before you can return to full duty.
- You can discuss a date to return to work with your provider at your first postoperative visit.

## Return to activities

- Eventually you will return to most activities as tolerated, such as walking, gardening, and golf.
- Some of the best activities to help with motion and strengthening are walking, swimming, and use of a stationary bicycle. Discuss swimming and biking with your provider before beginning to ensure that you're at the appropriate point in your recovery.
- You should avoid running, jumping, and sports such as singles tennis, basketball, football, hockey, or skiing.

## Dental work after surgery

- You may need to take antibiotics before dental work after your surgery. Please check with your surgeon about the need to take antibiotics before going to the dentist.
- You should not have dental work of any kind for 3 months after your surgery.
- Call your surgeon's office if you have a dental concern during the first 3 months following your surgery.
- Please remember to tell your dentist or surgeon if you are allergic to penicillin as this type of drug is usually ordered before any dental procedures.

## Traveling after total joint replacement surgery

- Your surgeon will tell you when it is safe to travel.
- It is recommended that you get up to stretch or walk at least once an hour when taking long trips. This is important to help prevent blood clots in your legs.
- It is likely that you will set off metal detectors in airports, bus stations, or government buildings after knee replacement surgery. Inform the security staff that you have a knee replacement. Security staff will use a hand wand over your knee if needed.

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## When to call 911

A blood clot in the leg can move to the lung, which can be very serious.

### Call 911 if you have any of these symptoms:

- Shortness of breath
- Chest pain
- Coughing up blood
- Unexplained anxiety, especially with breathing

### Call 911 for any symptom of stroke:

- Sudden numbness or weakness of face, arm, or leg, especially on one side
- Sudden confusion or trouble speaking or understanding speech
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, or loss of balance or coordination
- Sudden severe headache with no known cause

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## Return for follow-up visits

- **Remember:** Follow-up appointments with your surgery team are an important part of your recovery. Your surgeon's office will schedule these appointments for you.
- Call your surgeon's office if you have any questions or concerns during your recovery.
- Approximately one year after surgery, you will receive a notification to log in to MyChart to answer additional questions about how your joint replacement currently feels. Medicare requires this additional survey to be completed by all patients ages 65 years and older.

# Frequently asked questions

## Why does my thigh hurt above my knee after surgery?

- A tourniquet may be used around the upper thigh during surgery to slow the blood supply to your knee. Some people may feel discomfort in the thigh for a few days, but it will resolve.

## What is the recovery time?

- Patients heal from surgery at different rates.
- In most cases, you will use a wheeled walker for 2-4 weeks after surgery.
- If needed for support, a cane may be recommended by your care team. Progress to a cane, if needed for safety.
- You will gradually return to normal activities of daily living without using any assistive devices in about 3 months.

## How long will my total knee replacement last?

- The lifetime of a knee replacement is different for each patient.
- At 15 years after surgery, 90% of patients have not needed additional surgery.

## What range of knee motion should I expect after surgery?

- Range of motion varies and depends on many individual factors.
- The average patient achieves approximately 120 degrees flexion by one year after surgery.

## Can I kneel?

- Kneeling may be painful due to the skin incision and tissues healing.
- Follow your surgeon's recommendations about kneeling after surgery.
- Kneeling generally becomes more comfortable as time passes. A pad or cushion usually helps decrease discomfort from kneeling.

## Can I use weights when I exercise?

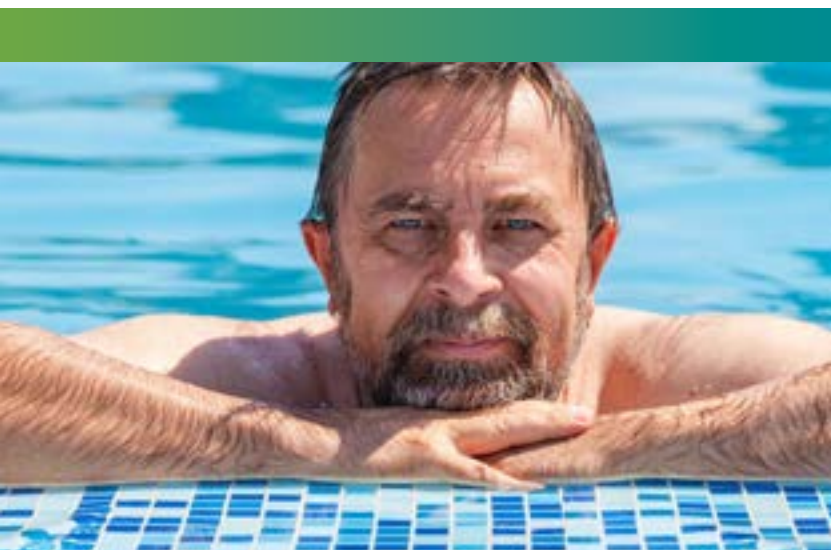
- Weights generally are not used for the first few months after surgery.
- As you progress with your physical therapy program, your surgeon may recommend the use of light weights.
- Always ask your surgeon or therapist before using weights.

## When may I return to a swimming pool?

- You may return to swimming in a pool by approximately six weeks after surgery.
- This may be delayed if your surgeon has any concerns about the healing of your skin incision.

## I have difficulty sleeping (insomnia); is this normal?

- Difficulty sleeping is normal and a common complaint after knee replacement. It may be a side effect of pain medication.
- You may take Benadryl or Tylenol PM (if you tolerate them) to help with sleeping.
- If insomnia continues, talk to your doctor about other suggestions.



### Can I drink alcoholic beverages during my recovery?

- If you are taking a blood thinning medication, you should avoid alcoholic beverages because it can change the effect of this medication.
- You also should avoid alcohol if you are taking opioid medications.

### I feel depressed; is this normal?

- It is not uncommon to have feelings of depression after surgery.
- Depression can be caused by a number of things, such as limited mobility, discomfort, increased dependency on others, and medication side effects.
- As you recover from surgery and return to regular activities, feelings of depression usually decrease.
- If you believe your depression is not improving, call **800-273-TALK (8255)** to talk to someone about your feelings of depression.

### Is swelling, numbness, or a clicking sensation normal?

Some normal symptoms you may experience include:

- swelling after exercise or at the end of the day.
- feeling of warmth around the knee.
- an area of skin numbness on the outside part of the knee.
- an occasional clicking sensation inside the knee.

### I think my leg feels longer now; is this possible?

- Your leg length generally will be unchanged.
- In some cases, the leg will feel lengthened because you are now able to straighten your leg.
- This may feel awkward or unusual at first, but will feel more normal with time.

### When may I resume sexual activity?

- Sexual activity may be resumed 6-8 weeks after surgery as long as you are not having significant pain or stiffness in your knee joint.

# Total knee arthroplasty

## Manual edema mobilization

These exercises will help move fluid and decrease swelling after surgery.

**DO NOT perform these swelling control exercises if you have an infection, a blood clot, an acute heart condition, untreated cancer, or if you have had complete removal of lymph nodes on the non-surgical side.**

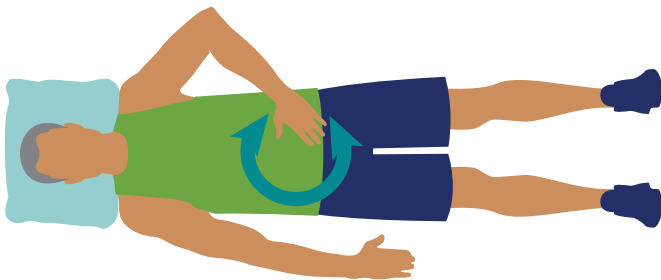
First, elevate your surgical leg for 15-20 minutes.

Next, do these exercises in the order listed, 5 times a day while lying down or reclining in a chair.

Then do your ankle pumps, quad sets, and glute sets.

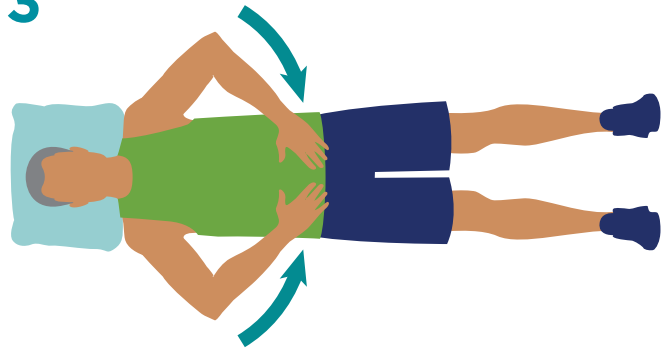
Last, apply cold therapy for 20-30 minutes.

1



Breathe deeply through your nose, causing your belly to rise. Exhale and perform two circular belly rubs. **Perform 10 times.**

3



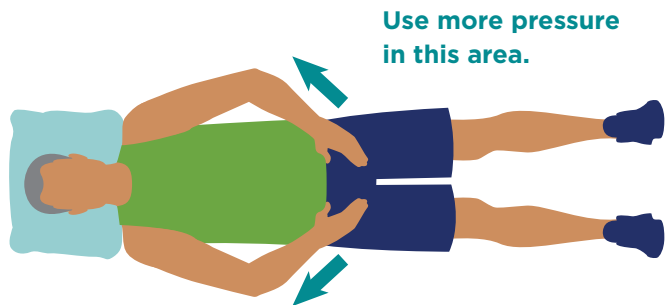
Bring both hands to outside of belly and sweep toward belly button. Lift off and return to starting position. **Perform 10 times.**

2



Lift head and shoulders off the bed to tighten belly muscles. **Perform 10 times.**

4



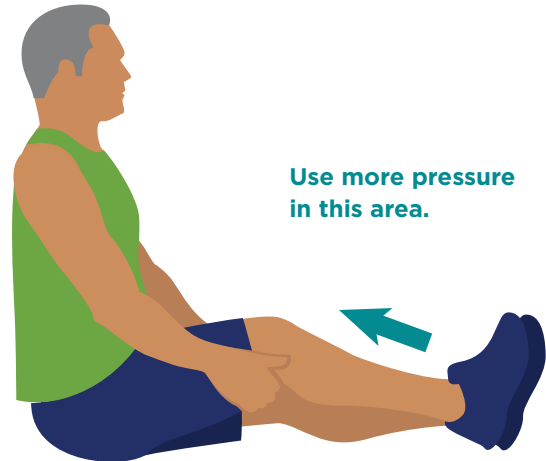
Bring both hands to crease of upper legs. Using pinky side of hands, scoop up toward hips. **Perform 10 times.**

5



Massage upper leg as shown, starting at outside of knee and sweeping toward hip. **Perform 10 times.**

6



Massage back of knee, with both hands scooping in direction of hip. **Perform 10 times.**

