



Mass General Brigham
Salem Hospital



Hip and knee school

A patient's step-by-step guide to **knee replacement surgery**

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Welcome

Thank you for choosing Salem Hospital's joint replacement program for your upcoming knee replacement. Our joint replacement program is staffed with a team of excellent surgeons, anesthesiologists, nurses, physical and occupational therapists and case managers. We are committed to providing you with expert care throughout your stay and recovery. Here are a few highlights of our program:

- Salem Hospital's total joint program has earned Blue Cross Blue Shield's Distinction as a Center of Excellence for Hip and Knee Replacement.
- Our board certified orthopedic surgeons perform hundreds of total joint replacement surgeries a year.
- Our specialty orthopedic units are staffed with nurses and staff who are trained to care for patients who have had joint replacement surgery. Our orthopedic navigators work with you, your physicians and your family to guide you through your procedure and recovery.
- Our hip and knee replacement patients recover in modern, private rooms to enhance rest and wellness.
- Our staff tracks our performance and uses the data to continually improve quality and value for our patients.
- Our pain management and infection prevention performance exceeds national standards in joint replacement.

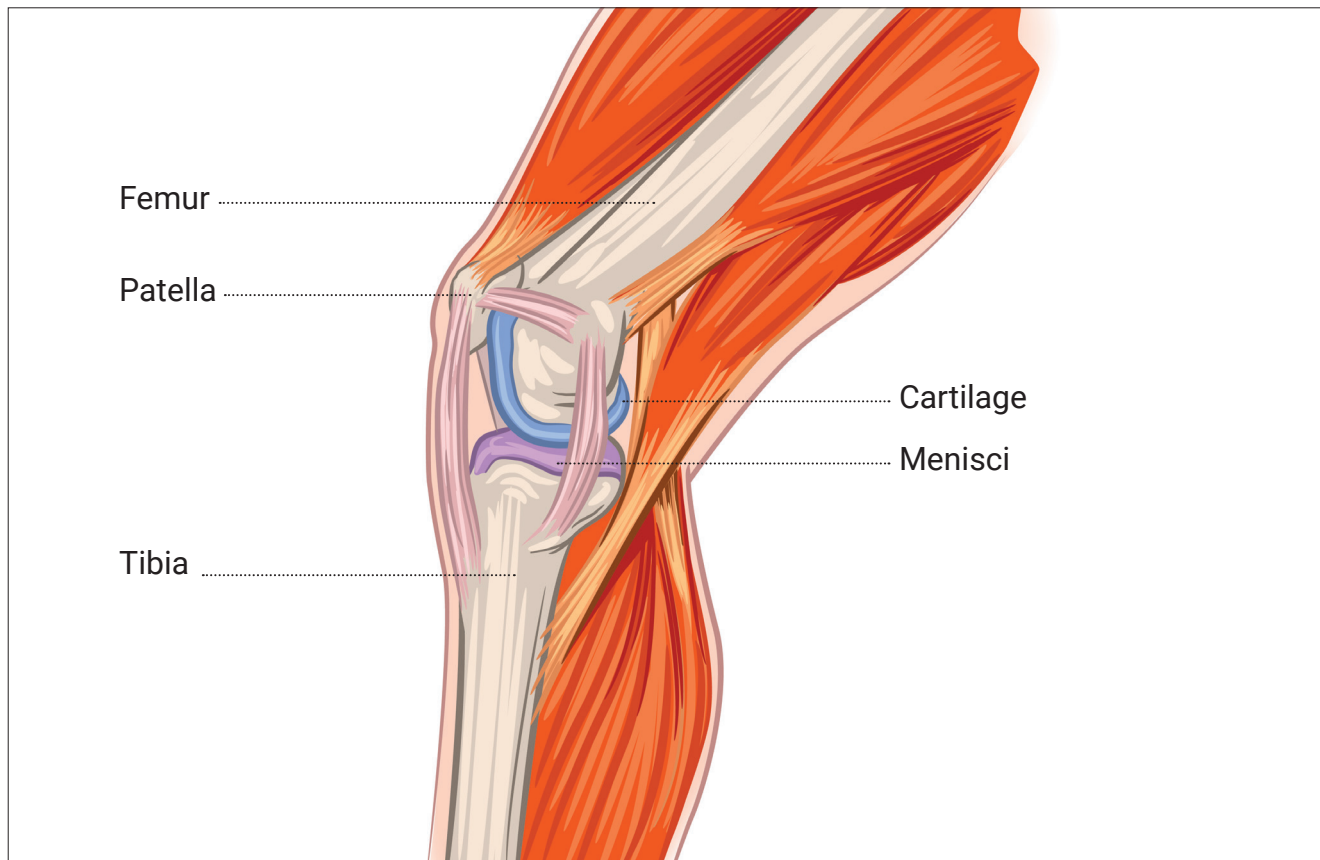


Most patients considering a knee replacement are experiencing considerable pain and limited movement. The erosion of cartilage and damage to bone surfaces caused by arthritis and other debilitating joint conditions can interfere with just about every aspect of life. Moving, working, enjoying time with family or friends or getting a full night of sleep can all be compromised.

This guidebook covers what to expect before, during and after your procedure and will ensure that you are well prepared for surgery. Even so, we expect you to have questions, so please let us know if you would like any additional information.

Please read this material carefully as you prepare for surgery. You may find it helpful to check off items completed and jot down questions we haven't addressed. Make sure to go over pertinent information with your care team as well. The more you know, the better prepared you'll be to take charge of your comfort and mobility again.

Nearly 600,000 patients in the United States have knees replaced each year with positive results.



Knee anatomy

Your knee is a complex hinge joint. When you bend your leg to walk or climb stairs, your bones should glide smoothly, with a material called cartilage acting as a cushion between the bones.

The muscles and ligaments surrounding your knee joint provide stability. When conditions such as arthritis wear down cartilage, joint space narrows and your bones rub together causing swelling, pain and joint stiffness when you walk or bend your knee.

A total knee replacement essentially involves resurfacing the ends of the bone with metal implants and replacing the cartilage with a smooth plastic liner. When surgically implanted, these components create a new, smooth surface that restores joint function and eliminates pain.

Your surgeon may use a robotic tool during your operation. The robot adds reference points to improve accuracy and precision, but your surgeon performs the entire operation.

Preparing for knee replacement begins weeks or months before your surgery date. In general, you should consider the following:

Have a physical examination with your primary care provider

Schedule a visit with your primary care provider to assess your overall health and identify any medical conditions that could interfere with your surgery.

- Be sure to mention any new symptoms you may be experiencing (like shortness of breath or heartburn).
- Be committed to following through on any further tests your provider recommends (like stress tests or additional lab tests).
- Talk with your primary care doctor about your blood sugar, even if you are not a diabetic.
- Stress can cause blood sugars to rise, even in patients who don't have diabetes. Surgery is a form of stress for the body and can make blood sugars rise. If the stress of surgery causes blood sugars to rise specifically on the first day after surgery, patients may be three times more likely to develop an infection.
- Patients with diabetes that is not well-controlled ($A1c >7$) before surgery, who go on to have elevated blood sugars after surgery double their risk of infection.





Learn what you can do to avoid complications after surgery

Research has shown that there are several key changes patients can make to lower their risk of complications after surgery. These changes include:

Quit smoking

Smoking lowers the amount of oxygen that reaches the wound, the rate of complications after surgery is six times higher in patients who smoke compared to patients who don't. The best plan would be to stop smoking for at least six to eight weeks prior to surgery

Cut down on alcohol

Excessive alcohol affects your body's immune response (ability to fight off infection) and your body's ability to respond to the stress of surgery which puts you at increased risk for both bleeding and infection.

Make important changes to your weight

Lose weight if you're overweight

- A BMI > 35 (a measure of your weight compared to your height) increases the risk of infection following joint replacement surgery by five times.
- Patients with high BMI's have more complications related to wound healing and bleeding initially and are more apt to need a revision surgery in the future.

Improve your nutrition status if you're underweight

- Patients with a BMI < 18 can have complications related to wound healing and bleeding, as well as weakened heart and kidney function after surgery.
- Adding low-sugar protein shakes for several weeks before surgery can improve nutrition and lower these risks.

Preparing for knee replacement surgery

Make an appointment for a dental examination to ensure your mouth is free of infection

- Decayed or broken teeth can cause bacteria to enter the bloodstream and cause infection at other sites in the body – including the site of a brand new joint replacement.
- Be sure to mention to the dentist if you have any teeth that are painful, loose or broken. If you require any dental procedures such as extractions or periodontal work, be sure to have it completed and fully healed before your surgery.

Follow careful skin prep instructions

- We know that about half of the infected joint replacements that develop are caused by a bacteria called staphylococcus aureus (SA).
- About 30 percent of the population carries SA – and people who carry SA are nine times more likely to develop a surgical site infection than patients who do not carry the bacteria.
- Washing your skin with an anti-bacterial soap called Hibiclens (in addition to the antibiotics your surgeon will give you on the day of surgery) can help prevent skin infections and prevent the spread of SA.
- Check your skin for any areas of redness, open sores, blisters or new rashes. These areas should be fully healed before your surgery – make an appointment with your primary care doctor if necessary.

Exercise under your doctor's supervision

The better your overall health before surgery, the better prepared you will be for recovery so take steps to improve physical health in advance. Increasing upper body strength will help you maneuver a walker or crutches after surgery. Strengthening the lower body before surgery can reduce recovery time. See the last few pages of this guide for tips on exercising prior to surgery.

Review medications

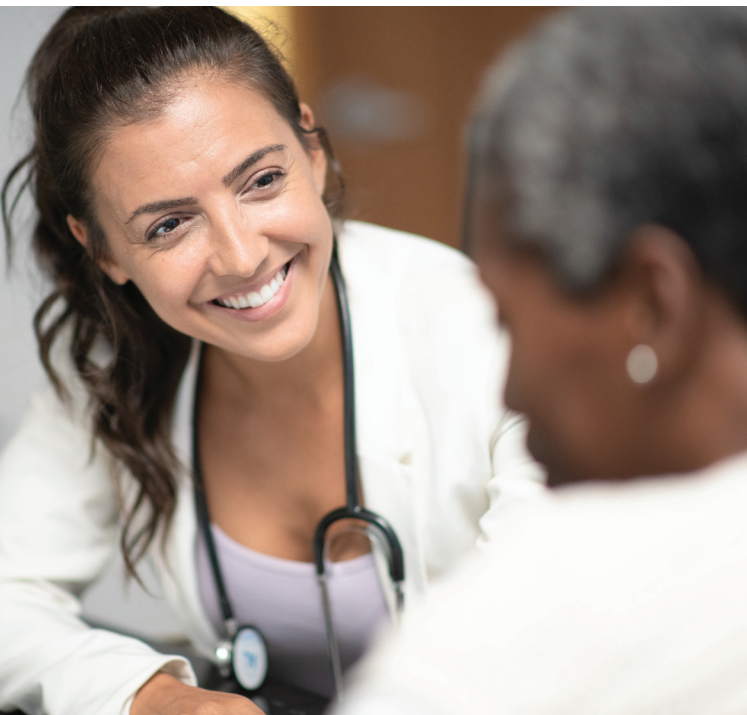
Our orthopedic team can tell you which over-the-counter or prescription medications and herbal supplements you may need to stop or hold before surgery.

Make plans for your transition from the hospital to home

Total knee replacement patients may need help at home for the first few weeks, including assistance with bathing, dressing, preparing meals, running errands and transportation. Plan to have someone stay with you for the first 24-72 hours after you go home. If you live alone and a friend or relative offers to stay with you, take them up on it! If you can't arrange for a full-time helper, speak to a friend or neighbor who might be willing to call or visit daily to check on you. On rare occasions, patients who need more time to return to independent living may need to go to a skilled nursing facility for supervised rehabilitation before returning home. Your physician, rehab team and case manager will evaluate your progress and make appropriate arrangements.

Preparing for knee replacement surgery

For best results, make arrangements for someone to stay with you during the initial period of recovery. Many patients have family members already at home, but if you live alone ask a friend or relative to stay with you. If you can't arrange for a full-time helper, speak to a friend or neighbor who might be willing to call or visit daily to check on you. On rare occasions, patients who need more time to return to independent living may need to go to a skilled nursing facility for supervised rehabilitation before returning home. Your physician, rehab team and case manager will evaluate your progress and make appropriate arrangements.



Preparing your home

- Walk through your home before surgery to be sure equipment (i.e., walker) will fit.
- To prevent falls, remove or secure long cords, loose rugs and carpets. Relocate furniture you might trip over.
- Arrange frequently used dishes, utensils and food on shelves and counters within easy reach.
- Have a chair or stool handy in the kitchen to sit on while preparing food.
- Prepare or freeze food before your surgery.
- Arrange for someone to care for or feed your pets.
- Install grab bars or a shower seat for your bathtub or shower.
- Have ice packs available.

The majority of patients having knee replacement surgery can safely return home after surgery. In fact, home may be the best place to avoid unexpected complications following surgery. Our goal is to help anticipate your needs at home before surgery, and to work together with your care team at the hospital to make your transition as smooth as possible.



Keeping you safe

At Salem Hospital, we go to great lengths to minimize your risk of complications such as infection. Our operating rooms are equipped with sophisticated air filtration systems to minimize infection and we follow the highest standards of safety and quality to ensure best outcomes. As a member of Mass General Brigham, we follow the same safety protocols as Massachusetts General and Brigham and Women's hospitals.

All patients will be treated with a topical antiseptic and will receive antibiotics over a 24-hour period before, during and after surgery. Your surgeon and surgical assistants will wear masks, sterilized gowns and two pairs each of sterilized gloves that are frequently changed. Some surgical teams wear sterile, completely enclosed "space suits" for even more protection. Your team will carefully wash and sterilize your surgical site to keep risk to an absolute minimum.

Following your surgery, you will need to tell other health care providers about your joint replacement and take oral antibiotics before undergoing even minor procedures, such as dental cleanings, to reduce the chance that an infection in another part of your body will spread to your artificial joint.

Your surgery, hospitalization and anesthesia

Your surgeon and the anesthesiologist or nurse anesthetist who will be taking care of you on the day of surgery will help you choose the best type of anesthesia for your procedure. For this process, you will be asked to complete several steps.

1) Enroll in patient gateway

First, you will need a Mass General Brigham Patient Gateway Account. Patient Gateway is a secure online portal that enables you to access your health records and communicate with your physician and his or her staff.

To enroll in Patient Gateway, please visit: patientgateway.massgeneralbrigham.org.

If you don't have access to a computer or if you haven't enrolled in Patient Gateway, we ask that you find a friend or family member to help you. Patient Gateway is one of the best tools we have for ensuring that your care is provided in a well-coordinated and well-informed manner.

2) Complete a pre-surgery questionnaire

Next, please complete a pre-procedure questionnaire that will be available in your Patient Gateway account. In this questionnaire, we will inquire about your health and medical history and ask specific questions about your knee problem. Your answers will be saved for review by the doctors and nurses who will take care of you.

3) Attend your pre-admission testing appointment

Two to three weeks before surgery, you will have an appointment with a nurse practitioner in the Pre-Procedure Evaluation (PPE) Clinic at Salem Hospital. She will review your medical history, order any required pre-surgery testing and provide important instructions..

Options for anesthesia

There are two types of anesthesia used for knee replacement patients. Both are safe and effective.

General anesthesia

With general anesthesia, you will receive a combination of medications through an IV that will put you into a very deep sleep. After you are asleep, a breathing device will be inserted into your throat to help you breathe during the surgery. Additional anesthesia medications will be administered during the procedure to ensure that you remain asleep and comfortable throughout.

An anesthesia provider will watch over you closely during the entire surgery. At the end of the procedure, a member of the anesthesiology team will allow the anesthesia medications to wear off and you begin to wake up. The breathing device that was used during surgery will be removed before you are fully awake. Patients typically do very well with general anesthesia, however, there is a higher risk of nausea, grogginess, and sore throat after surgery.

Your surgery and hospitalization



Spinal

With spinal anesthesia, you will begin by receiving a light sedative through an IV in your arm. Then, you will be asked to sit on the edge of the bed in the operating room. An anesthesia provider will clean your lower back with antibacterial soap, and inject some numbing medication just under the skin. A very small needle will be inserted once the skin is numb, and medication will be injected into your back to numb you from the waist down.

You will then lay on your back on the operating room bed and an anesthesia provider will administer additional sedation medication through the IV to keep you relaxed during surgery. The majority of patients with this type of anesthesia sleep through the entire surgery and have no recollection of it.

After the surgery is over, you will be brought to the recovery room. The numbness in your legs will wear off within a few hours. Compared with general anesthesia, spinal anesthesia has a lower risk of nausea and patients usually wake up feeling more clear-headed.

In addition to the anesthesia provided by the anesthesia providers, our surgeons use two types of nerve blocks which provide a numbing effect to your knee to help lessen the pain after your surgery.

Pericapsular blocks – include a combination of numbing and anti-inflammatory medications that are designed to provide local pain relief at the site of the surgery. This type of block is administered by the surgeon in the operating room just before closing the skin after the operation is complete. The pain relief from this injection may last eight to 10 hours after surgery. Because the pericapsular block works locally, the muscles above and around your knee remain functional and will not affect the stability of your leg after surgery.

Nerve blocks – provide a numbing agent to one or more of the nerves that travel around the top and sides of the knee. Nerve blocks are performed by an anesthesiologist or nurse anesthetist just before the surgery using an ultrasound scanner to locate and identify the nerves. You will still be awake, but you will be given relaxing medication to keep you comfortable while the block is administered. Nerve blocks can provide between 15-20 hours of pain relief after surgery.

Pericapsular and nerve blocks are important strategies for pain relief whether you're having general or spinal anesthesia.

You will be offered the benefits of the pericapsular block or femoral nerve block whether you're having general or spinal anesthesia.

Your surgery and hospitalization



- Final meeting with your anesthesia team and operating room nurse.
- Placement of IV (intravenous) for administration of fluids and antibiotics.
- Placement of compression boots wrapped around your legs – these are connected to a machine that fills them with air to promote blood flow and decrease the risk of blood clots.
- Once you are fully anesthetized, your surgeon and team will begin the procedure to replace your knee joint.

What to expect on the morning of surgery

Once you arrive at the hospital, your care team will go through a number of preparations with you that include:

- Final pre-surgery assessment of your vital signs.
- Removal of all personal belongings – dentures, hearing aids, hairpins, wigs, jewelry, glasses, contact lenses, undergarments, etc. Please bring a container labeled with your name to hold your dentures and glasses so they remain safe during your hospital stay. You will be dressed in a hospital gown during your operation.
- Several checks to confirm who you are and why you are having surgery today. You will be asked several times throughout your preparation for your name, date of birth, surgical procedure and to identify which joint is being operated on. Research has shown that repeating these questions enhances patient safety. Thank you for your patience and cooperation.

What to expect immediately after surgery

Most knee replacement surgeries take between one and three hours. After surgery, you will spend an additional two to three hours in the recovery room. Your blood pressure and heart rate will be monitored closely. You will receive oxygen through a small tube near your nose. You will find that a dressing has been applied to the surgical area to keep the wound clean and to absorb fluid. Your family will be updated about your condition and the plan for your transfer to the orthopedic floor.

What to expect during your recovery in the hospital

Once your condition is stabilized after surgery, you will be transported to your own hospital room on the orthopedic floor. We hope to have you stand and take a few steps as soon as you arrive in your room. Several members of your care team will drop in to orient you to your hospital routine. Your family members may visit you at this point, but please keep visits brief as you will

Your surgery and hospitalization

need time to rest. Your orthopedic surgeon, orthopedic nurse practitioner, physician assistant, nurses and therapists will closely monitor your condition and progress.

Pain control after surgery

The goals of post-operative (after surgery) pain management are to minimize pain and stress, and to enable you to participate fully in physical therapy. Most of the strong pain medications that are available also affect your level of consciousness and breathing. Too much pain medication can be dangerous, so our goal is to give you enough to make you comfortable without putting you at risk. Patients tolerate pain and pain medications differently so we aim to give the best medicines and doses that suit you. We are usually able to achieve relief with a combination of medications that can be delivered both intravenously and by mouth.

Your healthcare team will help formulate a "Pain Plan" to keep you comfortable. You will be asked frequently to evaluate your pain level on a scale from 1 (little or no pain) to 10 (severe pain). We strive to keep you as comfortable as possible, however, some pain and discomfort is expected after surgery.

In the early postoperative period, patients should not hold off on taking pain medicine, thinking they should tough it out or wait for the pain to pass. Patients who wait often suffer more severe pain and need more medication for relief than they would have needed if they had taken their pain medicine earlier.

During the course of your hospital stay, your pain medication will gradually be reduced and the IV will be removed from your arm.

The proper use of pain relievers before, during, and after your surgery is an extremely important aspect of your treatment. In addition to medication, we will also be applying ice after physical therapy sessions to control swelling and discomfort. Patients who experience discomfort from stiffness usually find that exercising helps relieve this pain more effectively than medications. If you have any questions about anesthesia or pain management after your surgery, please discuss these concerns with your team.

Infection Control in Your Room – At Salem Hospital, we are extremely careful about infection control. Staff and physicians sanitize their hands with an alcohol-based hand sanitizer or soap and water before and after caring for each patient. Sometimes the dispenser or sink is out of your view, so feel free to ask if their hands are clean if you have not seen them wash their hands. Please encourage your visitors to sanitize their hands too.

Breathing – Right after surgery, the health team will remind you often to take deep breaths and cough. We will also provide you with a device called an incentive spirometer that will expand your lungs by helping you to breathe more deeply and fully. It is very important to use this device at least once every hour while you are awake. Deep breathing can help prevent pneumonia or other lung problems that can slow down your recovery and lengthen your hospital stay.

Your surgery and hospitalization

Your Diet – We will slowly introduce liquids and soft foods soon after your surgery as your digestive system wakes up. As you are able, you will progress to a normal diet. The effects of anesthesia and pain medications may cause constipation so we will begin giving you stool softeners immediately after surgery to prevent any issues. You should continue taking measures to prevent constipation even after you return home, including the following:

- Continue to stay well-hydrated, drinking plenty of water and other non-caffeinated fluids - at least 40 oz. of liquids per day.
- Continue to eat small, frequent, high-fiber meals.
- Use the pain medications prescribed for you as needed, but minimize the use of narcotics when possible, as these contribute to constipation.
- Take 17 gm of Miralax dissolved in 8 oz of water twice a day AND one (1) Senokot tablet daily at bedtime until bowel movements are regular. (These medications are both available over the counter in your local pharmacy.)

Using the Bathroom – After surgery, staff will assist you in rising from the bed or chair and attending to your toileting needs. You will be able either to stand and pivot to a bedside commode, walk a few steps to the bathroom or use a bedpan to urinate or move your bowels.

Do not get up for any reason without staff assistance.

Do not try to shift your position or scoot to the edge of the bed or chair for assistance.

Exercise – You may be surprised at how soon after knee replacement surgery patients are encouraged to get up and start moving –usually as early as the day of surgery. Your weight-bearing status will be determined by your surgeon, and most patients will be encouraged to bear full weight on their new knee as soon as they can tolerate it. Patients typically rely on a walker or crutches to start, and then progress to a cane. You will be evaluated by a physical therapist who will focus on your mobility, and some patients will also meet with an occupational therapist who will review any precautions or special accommodations you may need to move safely with your new knee.

First, your nurse or therapist will help you move from your bed to chair, then you'll begin walking longer distances and eventually climbing stairs. You will start exercises to tone and strengthen your thigh and knee muscles as well as ankle and knee movements to help pump fluid that may cause swelling out of the leg. The more quickly you start moving again, the sooner you will be able to regain independence.



Leaving the hospital



Most patients will be ready to go home after one or two nights in the hospital. Some patients may meet hospital criteria for same-day discharge and may leave right from the recovery room. We will talk with you about this option early in the process of planning for your surgery.

Your case manager will meet with you throughout your hospital stay and coordinate with your surgeon, nurse and physical / occupational therapists to create a plan for leaving the hospital. Most knee replacement patients can safely return home following surgery, however a small number may require a short stay in a skilled nursing facility for additional rehabilitation and support. During your hospital stay, your physical and occupational therapists will be focusing on helping you master certain skills independently or with minimal assistance.

Before you are released to your home, you should be able to complete the following activities safely and independently, or with minimal assistance:

- Get in and out of bed
- Walk essential household distances with crutches or walker
- Go up and down stairs
- Bathe and dress yourself
- Access the bathroom
- Get in and out of a chair
- Get in and out of a car

Leaving the hospital

Your therapists may arrange for you to go home with equipment designed to make common tasks easier for you. This equipment may include long shoe horns, grabbers, raised toilet seats or bathtub benches.

The ride home

Before you are discharged, you will want to think about transportation from the hospital to your home. You will be safe to ride in a car with a family member or friend, but will be most comfortable in a car that is easy to get in and out of. While in the car, you may require pillows for support under your knee or behind your back. You should ask the person planning to bring you home to be available around 11 a.m. on the day of discharge. Allow for ample time to pick up any prescriptions you may need and to get settled at home and address any issues that may arise.

Your recovery at home

Exercise – When you get home, keep up the exercise program you learned in the hospital. We will arrange for a physical therapist to visit you in your home for several initial treatments. This is to ensure you are safe in and about your home. Your physical therapist will make recommendations about your safety, review your exercise program and continue working with you on range of motion. Feel free to refer to the post-op exercises at the end of this book for a glimpse into the type of therapy you will be doing after the operation.

Expect to regain strength and endurance as you begin to take on more of your normal daily routine. Home therapy visits should end when you can safely leave the house. Your physical therapist and surgeon will determine whether you need additional outpatient physical therapy at that time.

While a knee replacement will allow you to resume many daily activities, don't push your knee to do more than you could before your problem developed. Give yourself at least six weeks after surgery to heal and recover from muscle stiffness, swelling and other discomfort. Some patients can take six to 12 weeks to recover so don't be surprised if this process takes a bit longer.

Incision care

You will be given specific instructions about caring for your incision when you leave the hospital.

Most patients can get their incisions wet within two to five days after surgery. Any bruising or swelling around the incision will improve over the course of several weeks. Your home physical therapist will also educate you about incision care.

Check your incision daily and call your doctor if you notice any of these symptoms:

- Fever over 100 degrees
- Drainage from incision that is persistent or painful
- Redness around incision that is persistent or painful
- Increased swelling around incision that is persistent or painful

Leaving the hospital

Additionally, if you experience any of the following symptoms, you should call your doctor:

- Chest pain
- Chest congestion
- Problems breathing
- Calf pain or swelling in your legs

Potential complications of knee replacement

More than 600,000 knee replacements are performed safely in the US each year and while most patients recover without incident, there are a few potential complications to watch for.

Blood clots

Blood clots may result from several factors, including decreased mobility following surgery, which slows the movement of the blood. You are at risk for blood clots for the first several weeks after your surgery. Be sure you take the medication prescribed by your surgeon to prevent blood clots for the entire length of time recommended. Moving and walking as much as possible will also decrease your risk of blood clots. For the first several weeks after your surgery, avoid sitting or riding in a car or airplane for longer than one hour without taking breaks to stand and walk.

Symptoms include a red, swollen leg, especially in the calf area, or shortness of breath.

You can help reduce the risk of blood clots by:

- Moving toes and legs and pumping ankles immediately after surgery
- Wearing inflatable boots in the hospital that squeeze and relax around your legs to promote blood flow
- Walking as soon as possible after surgery
- Faithfully taking blood thinning medications (anti-coagulants) as directed

Hematoma – Some bleeding may occur from your surgical incision. If the drainage continues for more than 10 days after surgery, talk to your doctor.

Stiffness – Your potential range of motion after knee replacement will be based on the range of motion you had before the surgery. Your surgeon and physical therapist will work with you to develop a rehabilitation plan to achieve the best range of motion possible.

Loosening – Great advances have been made to extend the life of an artificial joint, with the majority of patients reporting excellent function for many years. In certain circumstances, the joint can loosen and an additional operation may be required to repair it.

Nerve injury – Nerves can be damaged during a knee replacement, although this complication is very rare.

Leg length alteration – Some patients may perceive a difference in leg length in the first month following surgery, but this feeling usually goes away after they adjust to walking with the new knee.

Tips for living with your new joint

- Ask for help – while your goal is to eventually do things for yourself, don't take unnecessary risks by trying to do too much too soon. Don't drive until cleared with your doctor (usually four - six weeks).
- Recuperation takes approximately six - 12 weeks and you may feel weak during this time. Use ice for swelling and discomfort. Ice your knee for 15-20 minutes after each exercise period and more often if necessary to reduce pain. Expect to use a walker, cane or crutches for several weeks. Avoid kneeling, bending or jumping for the first month after your procedure.
- Avoid alcohol while taking pain medication and avoid smoking as it slows healing.
- Don't be concerned if you hear clicking in your knee as it heals – this is normal.
- Avoid sexual activity until you have been cleared by your surgeon during a follow-up appointment.
- Keep your appointments with your doctor – it's important to monitor healing and function on a regular basis. You may need to check in with your doctor two to three times during the first year, and at intervals of two to three years thereafter. During those visits, your surgeon will take X-rays and monitor wear on your new joint.
- Always consult your orthopedic surgeon if you begin to have pain in your artificial joint or if you suspect that something is not working correctly.
- Watch for infection – your new joint is a foreign substance to your body. Germs from other infections can move to your new joint and cause infection there. Call your primary care doctor immediately if you have any signs of infection, e.g., skin infection, urinary tract infection, tooth abscess, etc. Early treatment is crucial.
- Alert your dentist and other physicians about your implant. Tell them about your joint replacement before you have any dental work or a procedure such as a colonoscopy, bladder exam, or other surgery. You may need to take antibiotics in advance to prevent infection.
- Your new joint will likely set off metal detectors in airports and other secured buildings. Plan for extra time at the airport for additional screening measures.



Patient Reported Outcome Measures (PROMs)

The orthopedic surgeons at Salem Hospital participate in a Mass General Brigham health care program called PROMs which stands for Patient Reported Outcome Measures. These measures capture the status of your recovery from your perspective, without being filtered through the view of your surgeon, and are a vital part of evaluating your success. The process is easy and confidential and starts with answering a series of questions that will be assigned to you via Patient Gateway prior to surgery.

To enroll in Patient Gateway, please visit patientgateway.massgeneralbrigham.org.

Your answers will provide your care team with valuable information that we can use to take better care of you. We will monitor your progress at regular intervals during your recovery, generally at 30 days, three months, six months, one year and two years following surgery. We encourage you to participate in the program as it enables us to be more responsive during your recovery progress.

What you can do

Pay attention to how you are feeling.

Read and respond to questions at home from an email link that we will send you.

View your answers on your Patient Gateway account to see how your symptoms have changed over time.

Tips from the team

Getting physically and psychologically ready for joint replacement surgery is a good plan. Those who are better prepared tend to achieve better results.



1) Educate yourself about your surgery

Learn as much as possible about the procedure, pre-op preparations, post-op care, precautions and possible complications. Ask your doctor to go over your surgical plan, outcomes and long-term care in detail. Attend the Hip and Knee School at Salem Hospital prior to your surgery.

2) Plan ahead

Schedule surgery when you can afford to take time off from work and when you will have the most support from friends and family.

3) Have a positive attitude

Be encouraged and focus on the high rates of success for total joint procedures.

4) Talk with patients who have had the procedure before

Hearing about successes can help you gain perspective and ease your mind.

5) Visualize getting your life back

The pain and deterioration of your joint severely diminishes your quality of life. Focus on how things will improve after surgery.

6) Actively participate

Make a commitment to do your part to ensure a positive outcome and assume responsibility for your own care (i.e., do exercises daily).

7) View the recovery process as a positive

This is time to rest and recuperate. Time invested in rehabilitation is necessary for better health.

Leaving the hospital

8) Prioritize physical therapy

Realize that the physical therapy phase of your recovery is critical for a successful outcome. Think of each exercise as a stepping stone toward improved strength, range of motion and function.

9) Prepare for downtime

Remember, you will be focused on your recovery for at least four - six weeks. Organize, schedule appointments and take care of as many responsibilities as possible before surgery.

10) Take multi-vitamins and eat well-balanced meals

Be particularly health conscious during the weeks and months leading up to surgery to promote better healing.

11) Be conscious of infection

If you have any sign of infection anywhere in your body call your doctor. You may need to postpone surgery until the infection has fully resolved. Plan to purchase an antibacterial, antiseptic body wash called Hibiclens® – it is available at most local pharmacies and no prescription is needed. You will be instructed to wash your body with the Hibiclens® soap for five days leading up to your surgery.

12) Adapt your environment

Get ready for your homecoming before you come to the hospital.

13) Arrange for help

Plan for someone to be with you, especially for the first week or two at home. If no one is available, talk to an orthopedic case manager before you get to the hospital about a post-discharge plan. You can reach a case manager by calling 978-741-1200 and asking to speak with the Salem Hospital Case Management Department.

14) Never lose sight of your goals

The surgeon and surgical team do their work in the operating room and guide you to your recovery team. With inspiration and hard work, you will achieve great success throughout your rehabilitation, recovery and beyond.

The more quickly you start moving again, the sooner you will be able to regain independence.

Knee extension



Place pillow or towel roll under knee.
Move leg as shown, keep back of knee on pillow.
Hold 5 seconds, repeat 10-15 times.

Pre op exercises

Knee flexion



Move leg as shown, bending your knee.

Keep your back straight.

Repeat 10-15 times.

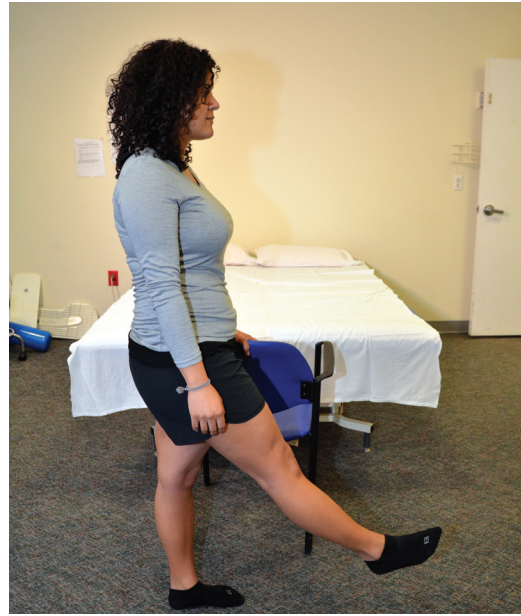
Hip abduction



Move leg as shown, out to the side.
Keep back straight and toes pointed forward.
Do not bring your leg forward.
Repeat 10-15 times.

Pre op exercises

Hip flexion and extension



Keeping knee straight, bring leg forward and backward slowly.
Repeat 10-15 times.

Calf stretch



Stand with leg back and the other forward.

Keep your back knee straight and your heel on the ground.

Lean forward keeping your hips facing forward.

Hold 20-30 seconds, repeat 5 times.

Pre op exercises

Thigh squeezes/quad set



Tighten thigh, pushing knee into bed.

Hold 5-10 seconds.

Repeat 10-15 times.

Post op exercises

Glut set

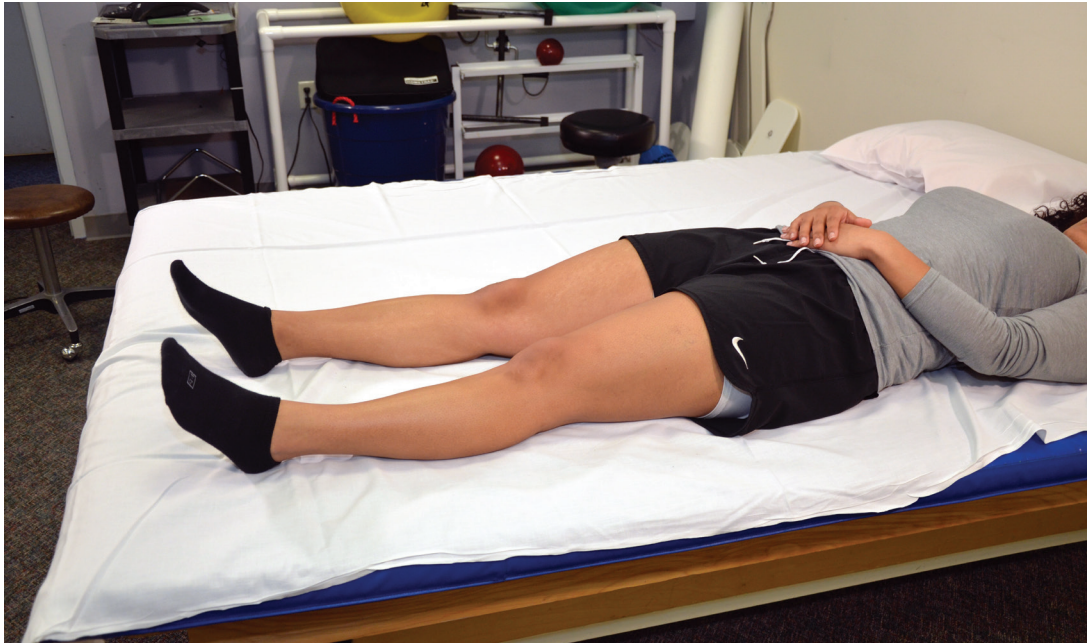


Squeeze buttocks together.

Hold 5-10 seconds.

Repeat 10-15 times.

Heel slide



Move leg as shown, sliding heel on mat.

Return to start position.

Repeat 10-15 times.

Ankle pumps



Move foot up and down as shown.

Repeat 10-15 times.

Knee extension



Move leg as shown. Keep your back straight.
Repeat 10-15 times.

Foot slide knee flexion



Sit in chair and place your foot on a towel or paper.
Slide your foot back, bending your knee as much as you can.
Hold 10 seconds.
Repeat 10-15 times.

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