Patient and family guidebook



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General information

Welcome

On behalf of the entire joint replacement team, thank you for choosing to have your surgery at Sentara.

Clinically proven protocols, individualized care, experienced surgeons, and the guidance of an Orthopedic Patient Navigator are ready to help you return to your favorite activities. Our goal is to ensure you have an exceptional experience and achieve the best outcomes from your joint replacement surgery. Let's get started!

Using the guidebook

Knowing what happens before and after joint replacement surgery prepares patients to participate in their care and decreases anxiety. The Sentara Orthojoint Center[®] guidebook for joint replacement surgery includes:

- What to expect before and after surgery
- How to prepare for surgery

This guidebook is a tool for you to get a basic understanding of joint replacement surgery. Your joint replacement team may add or revise any of the guidebook recommendations based on your unique needs.

What is osteoarthritis, and why does my joint hurt?

Joint cartilage is a tough, smooth tissue that covers the ends of bones where joints are located. It helps cushion the bones during movement, and because it is smooth and slippery, it allows for motion with minimal friction. Osteoarthritis, the most common form of arthritis, is a wear-and-tear condition that destroys joint cartilage. Sometimes, as the result of trauma, repetitive

movement, or for no clear reason, the cartilage wears down, exposing the bone ends. Over time, cartilage destruction can result in painful bone-on-bone contact, along with swelling and loss of motion. Osteoarthritis usually occurs later in life and may affect only one joint or multiple.

Total knee replacement

The damaged bone and cartilage from the thigh bone (femur), shin bone, and kneecap are removed, and an artificial joint, also known as a prosthesis, is inserted.



Total hip replacement

The damaged bone and cartilage from the thigh bone (femur) and hip bone are removed, and an artificial joint is inserted, also known as a prosthesis.



Sentara OrthoJoint Center® team

Orthopedic surgeon

The orthopedic surgeon is a highly skilled doctor who will perform the surgery.

Physician Assistant (PA) and Nurse Practitioner (NP)

Advanced practice clinicians assist the surgeon with hospital visits, during surgery, and in the office.

Hospitalists

Doctors specialized in hospital care, who may help with your needs while you are in the hospital.

Orthopedic Patient Navigator

The Orthopedic Patient Navigator is a role that is unique to the Sentara Orthojoint Center. Sentara has learned that joint replacement patients benefit from having a central point of contact. The Navigator helps coordinate your care needs from the surgeon's office, to the hospital and after you have been discharged, including:

- Offering preoperative education
- Answering questions and managing your hospital care
- Acting as an advocate before and after surgery

Contact the Navigator with any questions or concerns.

Registered Nurse (RN) or Licensed Practical Nurse (LPN)

RNs are responsible for your daily care and will ensure physicians' orders are completed.

Physical Therapist (PT)

A physical therapist focuses on improving your ability to move your body. After surgery, your PT will train you and your Coach in safe mobility techniques and teach exercises designed to regain your strength and motion.

Occupational Therapist (OT)

An occupational therapist focuses on improving your ability to perform activities of daily living. If ordered by your surgeon, an OT may guide you on performing daily tasks after surgery, such as bathing and dressing.

Orthopedic Tech

These team members assist you with mobility. They will help you safely move around your room and in the hall when appropriate.

Certified Nurse Assistant/Patient Care Technician

These team members help the nursing staff with your daily care.

Each year, more than 1 million people make the choice to have joint replacement surgery. The surgery aims to relieve pain and restore independence. We look forward to helping you return to a healthier and more active lifestyle.



Look for tips for success throughout the guidebook.

Preparing for surgery

Check with your surgeon for specific instructions

Preoperative visit

You may have a preoperative appointment at your surgeon's office. This is a good time to ask any last-minute questions.

Stop medications and supplements that increase bleeding

Stop taking all anti-inflammatory medicines such as aspirin, Motrin and naproxen, as well as vitamins and herbal supplements 7 days prior to surgery. Some vitamins and herbal supplements that can affect bleeding are vitamin E, turmeric, garlic, fish oil, etc.

Prescription blood thinners

If you are taking a blood thinner, you will need specific instructions from your doctor for stopping this medication.

Smoking cessation

It is recommended that you stop smoking. Smoking delays the healing process and can impair oxygen circulation to your joints. It also shrinks blood vessels and decreases the amount of oxygen in your blood. Smoking can also increase blood pressure, heart rate and clotting, which can cause heart problems. If you need help to quit smoking, ask about hospital resources.

Recreational substances

If you consume alcohol and/or recreational drugs regularly, you should discuss this with your physician.

Note: If you see a pain management physician, please discuss this with your surgeon.

Skin care

Please monitor your skin closely before your surgery. Avoid scratches, bruises, sunburn, rashes, and open areas, which will increase your risk for postoperative infection. If any of these issues arise before surgery, please contact your surgeon's office.

Dental care

Oral health and hygiene are important to healing and overall wellness. There may be a waiting period after your joint replacement surgery before you can have dental procedures (including cleanings).

Please check with your surgeon for their recommendations about having a dental exam before your surgery. Most dental issues need to be cared for at least one month before having joint surgery. You do not want to develop an issue with a loose filling, a cavity or other problems during your recovery.

After your joint replacement, talk with your surgeon about the need to take antibiotics before dental work.

Medical clearance for surgery

Before your surgery, you will need to have a medical clearance exam to ensure that any medical conditions you may have are well managed. This can be done through your primary care provider, your surgeon's office, or the Pre-anesthesia Surgical Screening (PASS) Clinic. Certain blood tests (and other testing) will be required before your surgery. Your surgeon's office will instruct you on how to complete your medical clearance and pre-op testing.

Put healthcare decisions in writing

Sentara keeps patients' wishes and preferences at the forefront of their care. Upon arrival for your surgery, you will be asked if you have an advance directive. If you do, please bring a copy to the hospital with you so the document can become a part of your medical record. Advance directives are not a requirement for admission.

Reminder: After surgery, make sure to check with your surgeon before restarting any NSAIDs such as ibuprofen, naproxen sodium, Advil, Aleve, Motrin and Meloxicam.

Preparing for surgery continued

Preoperative education

You should plan to participate in preoperative education before your joint replacement surgery. It is strongly suggested that you invite a family member or friend to act as your "Coach." The Coach's role will be explained in your preoperative education.

For more preoperative education, including a pre-op video and an interactive version of the guidebook visit SentaraOrthoEducation.com (or scan the QR code below).



Importance of your Coach

The involvement of a family member or friend acting as your Coach is very important. Your Coach should participate in pre-op education, give support during exercise sessions, and keep you focused on healing. They should encourage you to maintain your exercise program and promote safety while recovering. Your Coach can be one person or team of people. Consider the following:

- Spouse
- Partner
- Friends
- Church members
- Neighbors
- Extended family members



General diet considerations

Food choices for orthopedic health

Protein is necessary for healing after surgery, and it can be obtained from foods such as meats, cheese, eggs, whole grains and legumes. It is also important to get plenty of vitamins. Make an effort to include calcium and vitamin D-rich foods in your diet. If you're missing out on these foods, you may want to talk to your doctor about supplements. Supplements can sometimes interact with other medications, though, so be sure to choose supplements with the help of a healthcare provider.

Weight control

- Maintaining a healthy weight helps with mobility after surgery and prevents unnecessary stress on your joints. It is important to be mindful of body weight when preparing for and recovering from surgery.
- Losing a few pounds before surgery can help.
- Don't lose too much weight quickly, as this can deprive your body of nutrients necessary for recovery.

Blood sugar control

High blood sugar levels can put orthopedic patients at risk of:

- Infection
- Fractures
- Excess weight gain

If you have diabetes or pre-diabetes, it is especially important that you comply with your balanced meal plan (including portion size) and medication regimens during the period of time surrounding surgery.

Controlling your blood sugar will lessen the impact diabetes has on your overall health and better ensure an optimal recovery. For more information, visit sentara.com/diabetes.

What you eat plays an important role in helping you recover from surgery as well as lifelong orthopedic health.





Your medication list

Prepare an up-to-date medication list before surgery. Take time to include prescription medications, over-the-counter (OTC) medications, supplements, and natural herbs (including patches, creams, drops, etc.). Include medication doses and how often you take the medication. Be sure to have this list available to review with members of your healthcare team at any preoperative visits and during the Pre-anesthesia Surgical Screening (PASS) phone call, if received. [Note: if your medical clearance is completed at a PASS Clinic, you will not receive this call.] You will get specific instructions about medications and dosages, including when to stop some of them. Please follow the instructions carefully.

If you do not already have your own list, you can refer to "Medication list(s)" on <u>page 37</u> in the back of this guidebook for a place to record all your current medications, as well as a place for recording new medications after surgery. Check your Sentara MyChart to make sure all your medications are current. It is very helpful to your admission process and direct patient care at the hospital. Do not forget to bring your medication list in with you on the day of surgery.

Remember to include **all** of the medications and supplements you take.

Prepare your home for your return

This checklist offers some ideas that joint replacement patients have found helpful:

Place any frequently used items such as remote control, phone charger, etc. on an easy to reach shelf or surface.

Check railings to make sure they are not loose.

Do laundry before leaving for surgery and put it away.

Put clean linens on the bed.

Prepare meals and freeze them in single-serving containers.

Tend to the garden and finish any other yard work.

Store throw rugs and tack down loose carpeting.

Remove electrical cords and other obstacles from walkways.

Put night-lights in bathrooms, bedrooms and hallways.

Consider putting grab bars in the shower/bathtub. Put adhesive slip strips in the bottom of the tub.

If your pet stays in your home, be aware of your pet's location so that you do not trip or lose your balance.



Start preoperative exercises

Many patients with arthritis experience pain and decreased mobility of the hip or knee joint. As a result, the muscles become weaker. For this reason, it is important to start an exercise program before surgery to improve strength and flexibility.

Arm strength will also be important for activities of daily living, such as getting in and out of bed, using the toilet and using a front-wheeled walker.

This guidebook includes exercises that you can start now to help you prepare for surgery and regain mobility after your joint replacement.

Knee surgery: preoperative and postoperative exercises

You may be limited in what you can do before your surgery. When doing these exercises, work within your pain-free range. These exercises are best performed on your bed or sofa.



Gluteal squeeze

- Squeeze buttocks muscles as tightly as possible while counting out loud to 5.
- · Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Patient may place hand under buttock area and feel for muscle contraction.



Quad sets

- Slowly tighten muscles on thigh of straight leg while counting out loud to 5. Relax.
- Repeat 20 times.
- · Complete 2 sessions per day.

Coach's note: Look and feel for the muscle above the knee to contract. The heel may come off the surface if done correctly.



Ankle pump

- Bend ankles to move feet up and down, alternating feet.
- Repeat 20 times.
- Complete 2 sessions per day.

Heel slide

- Bend knee and pull heel toward buttocks.
- Hold 5 seconds. Straighten leg.
- Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Patient should actively bend up surgical leg. Additional stretch can be obtained with towel, sheet, or theraband.

Knee extension stretch

- With rolled towel under ankle of surgical leg, place ice pack across knee.
- Hold 5 minutes, or as tolerated.
- Complete 3 sessions per day.

Coach's note: The knee should be unsupported to allow for a greater stretch.

Short arc quad

- Place a large can or rolled towel under knee.
 Straighten leg.
- · Hold 5 seconds. Lower leg.
- Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Remember to remove the rolled towel from under the knee after this exercise.

Straight leg raise

- Tighten muscles on front of thigh, then lift leg 6-12 inches from surface, keeping knee locked. Slowly lower leg.
- Repeat 10 times per set.
- Do 2 sets per session.
- Complete 2 sessions per day.

Coach's note: Keep leg straight. Assistance may be needed by supporting under knee and ankle.









Abduction

- Slide one leg out to side.
- Keep kneecap pointing up.
- Gently bring leg back to center.
- · Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Encourage patient to keep kneecap/toes pointed up.



Quad strengthening

- Tighten muscles in top of thigh and straighten out knee.
- Hold 5 seconds, counting out loud. Slowly lower leg.
- Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Encourage patient to completely straighten knee.

Chair knee flexion

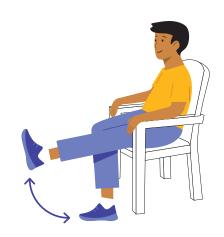
- Keeping feet on floor, slide foot of operated leg back, bending knee.
- Hold 5 seconds.
- · Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Patient should bend knee to point of pain and then a little more. Slide foot under chair, keep hips on chair. With foot planted on the floor, move buttocks forward in chair for greater stretch.

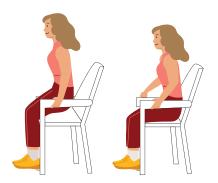
Arm chair push-ups

- Put hands on arms of chair and push body up out of chair. Slowly lower body back down.
- · Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Emphasize to patient to push down into the armrests.



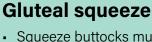




Hip surgery: preoperative and postoperative exercises

If using these exercises postoperatively, please follow your hip precautions as directed by your surgeon.





- Squeeze buttocks muscles as tightly as possible while counting out loud to 5.
- Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Patient may place hand under buttock area and feel for muscle contraction.



Quad sets

- Slowly tighten muscles on thigh of straight leg while counting out loud to 5. Relax.
- Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Look and feel for the muscle above the knee to contract. The heel may come off the surface if done correctly.



Ankle pump

- Bend ankles to move feet up and down, alternating feet.
- Repeat 20 times.
- · Complete 2 sessions per day.



Heel slide

- Bend knee and pull heel toward buttocks.
- Hold 5 seconds. Return.
- Repeat 20 times.
- Complete 2 sessions per day.

Abduction

- Slide one leg out to side.
- Keep kneecap pointing up.
- Gently bring leg back to center.
- Repeat 20 times.
- Complete 2 sessions per day.



Short arc quad

- Place a large can or rolled towel under knee. Straighten leg.
- Hold 5 seconds. Lower leg.
- · Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Support under patient's heel if assistance is needed for patient to straighten knee.



Quad strengthening

- Tighten muscles in top of thigh and straighten out knee.
- Hold 5 seconds, counting out loud. Slowly lower leg.
- · Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Encourage patient to straighten knee.



Arm chair push-ups

- Put hands on arms of chair and push body up out of chair.
 Slowly lower body back down.
- Repeat 20 times.
- Complete 2 sessions per day.

Coach's note: Emphasize to patient to push down into the armrests.



Planning for discharge

Joint replacement surgery is an elective, planned surgery. Knowing your discharge plan is a key part of your recovery process. When it is determined that it is safe for you to return home, your transition team will finalize plans for you.

You will get written discharge instructions concerning medications, physical therapy information, activity, etc. The team will ensure you understand the next steps and how to use the required equipment.

Please arrange for someone to bring you home after surgery. It's important to make arrangements before surgery for your Coach to stay with you after discharge home.

Be sure to take your guidebook with you to use as a reference.

Transportation plan

Write down your:
Coach:
Ride home:
Backup:
2donapi

What to bring to the hospital

You are encouraged to wear comfortable, casual clothing on the day of surgery. If you stay the night after surgery, you will need to bring a small bag containing comfortable clothing and toiletries, as well as supportive shoes for safe mobility.

For safety reasons, please do not bring electrical items such as fans or electric blankets. You may bring battery-operated items. Cell phones, laptops and tablets are permitted for use in your room. Remember to bring any chargers for those items.

Please bring the following to the hospital:

A copy of your advance directive (living will) if you have one.

Insurance card, driver's license or photo I.D.

If your insurance requires a copay and you have not already paid it before the day of surgery, it may be collected when you arrive.

Containers for glasses, contacts, hearing aids, dentures, etc.

Comfortable clothes to wear after surgery (T-shirt, shorts, flat shoes or tennis shoes)

If you have a walker that has **not** been fitted to you, have someone bring it to the hospital the day of your surgery and your physical therapist will check it for safety and fit. It may be helpful to put it in the trunk of your car you are bringing to the hospital, so it is available.

CPAP if you use one. Know your settings and bring all of the parts. We will provide the water.

Do not bring to the hospital:

Jewelry and valuables

Night before and morning of surgery

Skin preparation

You will be given specific instructions about skin preparation before surgery. Please follow the instructions carefully, and understand that the final steps of skin preparation will take place at the hospital.

Your skin preparation includes:

- Shower with pre-surgical wash, as directed
- Do not shave your surgical site within three (3) days prior to your surgery

Food and liquid consumption

You will be given specific instructions about eating and drinking before surgery. Please review these instructions and follow them carefully.

Enhanced Recovery After Surgery (ERAS)

ERAS is a proven group of activities that will help improve surgical healing. Protocols include taking non-narcotic medications around the clock to control discomfort, getting out of bed soon after surgery, walking frequently, chewing gum, and eating solid foods early — in the hospital and at home.

Reminder: Please remove fingernail and toenail polish, including acrylic nails, prior to surgery.



Understanding your surgery and anesthesia

What is a total knee replacement?

The damaged bone and cartilage from the thigh bone (femur), shin bone, and kneecap are removed, and an artificial joint, also known as a prosthesis, is inserted.

What is a total hip replacement?

The damaged bone and cartilage from the thigh bone (femur) and hip bone are removed, and an artificial joint is inserted, also known as a prosthesis.

What will happen before my surgery?

You will meet your anesthesiologist on the day of your surgery. Your anesthesiologist will go over all the information needed to assess your general health. This will include your medical history, laboratory test results, allergies, and current medications.

The anesthesiologist will use this information to decide the type of anesthesia best suited for you. Your anesthesiologist will also answer any other questions you may have. You will also meet your surgical nurses.

Intravenous (IV) fluids will be started and preoperative medications may be given, if needed. Once in the operating room, monitoring devices will be attached, such as a blood pressure cuff, EKG, pulse oximeter, etc. At this point, you will be ready for anesthesia.

During surgery, what does my anesthesiologist do?

Your anesthesiologist is responsible for your comfort and well-being before, during, and immediately after your surgical procedure. In the operating room, the anesthesiologist will manage vital functions, including heart rate and rhythm, blood pressure, body temperature, and breathing. The anesthesiologist is also responsible for fluid replacement when necessary.

What type of anesthesia is available?

- General Anesthesia causes loss of consciousness.
- Regional Anesthesia involves the injection of a local anesthetic to provide numbness, loss of pain, or loss of feeling to a large area of the body. Regional anesthetic techniques include spinal blocks, epidural blocks and other nerve blocks.

Will I have any side effects?

Your anesthesiologist will discuss the risks and benefits associated with different types of anesthesia as well as any complications or side effects that can occur. Common side effects may include nausea or vomiting and, less frequently, urinary retention. If you experience these symptoms postoperatively, your care team will implement medications and treatments as appropriate.

Your safety is our greatest priority. Never attempt to get up without calling for assistance and having an orthopedic care team member present.



Day of surgery

Preoperative phase

Arrive at the hospital as instructed by your pre-op phone call. A prompt arrival gives staff enough time to prepare you for surgery. Preparation for surgery includes these activities:

- A nurse and an anesthesiologist will interview you.
- A nurse will start your IV.
- Antibiotics will be given through your IV as ordered.
- Your surgical site will be prepared.
- Your surgeon will mark your surgical site and answer any questions you may have.
- There may be other preparation activities as ordered.

Postoperative phase

You will be taken to the Post Anesthesia Care Unit (PACU) after surgery. During this period, you may be given extra oxygen, and specially trained nurses will closely observe your breathing and heart functions.

- After you are cleared by the PACU team, you will be taken to your room or discharged home.
- You can expect to be up and moving within hours after your surgery.
- It is important to continue your ankle pump exercises; see page 10 and 13 for exercises.
- You should also start breathing exercises using an incentive spirometer as directed.

After surgery

Early mobility

Some patients will go home on the same day as their surgery, and some will stay overnight. Most patients will be out of bed and walking with a walker on the same day as the surgery. Physical therapy (PT) will work with you and assess your safety and therapy needs before discharge. Your Coach is encouraged to observe while you work with PT to help ensure a smooth transition home. If you stay overnight, the morning after your surgery may start as early as 4 a.m. You will be assisted out of bed to sit in a recliner.





Deep breathing, coughing and using an incentive spirometer can reduce the risk of pneumonia.

Breathing exercises

Techniques like deep breathing, coughing and use of an incentive spirometer can lower the risk of pneumonia, a potential complication after surgery. These techniques are described below. After surgery, you will be using an incentive spirometer as instructed by your care team.

Deep breathing

- To deep breathe, you must use the muscles of your abdomen and chest. Breathe in through your nose as deeply as you can.
- Hold your breath for 2 to 3 seconds.
- Let your breath out slowly through your mouth.
 As you breathe out, do it slowly and completely.
 Breathe out as if you were blowing out a candle (this is called "pursed-lip breathing"). When you do this correctly, you should notice your stomach going in. Breathe out for 10 to 20 seconds.
- Take a break and then repeat the exercise 10 times.

Coughing

- Take a slow deep breath. Breathe in through your nose and concentrate on filling your lungs completely. Breathe out through your mouth and concentrate on emptying your chest completely.
- Repeat with another breath in the same way.
- Take another breath and hold it for the count of three, then cough hard. When you cough, focus on emptying your lungs.
- Repeat all steps twice.

Incentive spirometer

You will get an incentive spirometer to help keep your lungs clear. It is recommended that you do 10 repetitions every hour while you are awake. You should continue to use your incentive spirometer as directed when you leave the hospital.

Coach's checklist

Pain medication dosing, side effects and instructions

Blood thinner medication dosing, side effects and instructions

Review incision care (if any ordered)

Signs and symptoms of infection

How to put on the TED stockings (if ordered - please review your surgeon's instructions)

Signs and symptoms of a blood clot (DVT) and pulmonary embolism

How to use an incentive spirometer and how often

Movement restrictions

How to help the patient in and out of bed

How to help the patient up and down stairs

The exercise program to follow at home

Diet restrictions, recommendations and constipation prevention

How to use equipment properly

How to reach your surgeon in case of an emergency

If you have any questions or concerns, please ask a member of your care team before discharge.



Prescriptions

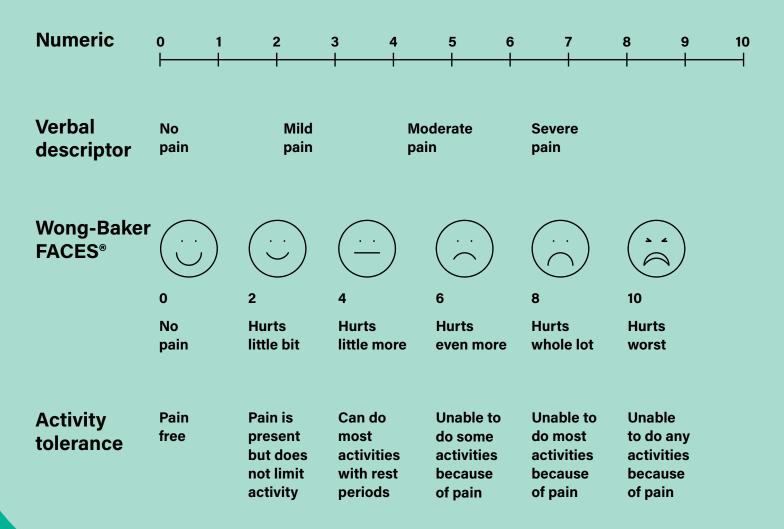
You will get written discharge instructions concerning medications, physical therapy, activity, etc. The Sentara To Home pharmacy (located in most Sentara hospitals) can conveniently fill your prescriptions for you. Sentara To Home pharmacy is open Monday through Friday; hours vary by location.

Visit <u>sentara.com/SentaraToHome</u> to find the hours and location where you are having surgery. If you want your prescriptions filled by an outside pharmacy, notify your care team.

Understanding pain and your role

You play a major role in controlling your postoperative pain! It is easier to prevent pain from getting out of control rather than to manage it once it becomes intense. Remember to take your pain medication with food to decrease the risk of nausea.

Let your nurse know when you feel pain or discomfort that affects your ability to carry on a conversation, sleep at night or do physical therapy. Make sure to tell your nurse and caregivers if your pain is not being controlled with the medication you have been given.



You will have discomfort or pain postoperatively. The team will work to manage it so that you can eat, sleep and be mobile.

When you are at home after surgery



Red Zone - Take action; call 911 now

ACTION: Call 911 right away!

You are in the Red Zone if you experience:

- Chest pain
- Shortness of breath
- Fall (with pain/injury/loss of consciousness)



Yellow Zone - Call right away

ACTION: Call your surgeon's office for the following symptoms.

You are in the Yellow Zone if you experience:

- Temperature greater than 101°F with chills, sweating, shaking
- Significant swelling or redness around the incision
- Increased drainage (foul odor or cloudy color)
- Swelling in the thigh, calf or ankle that does not go down with elevation
- Pain, heat, redness and/or tenderness in the calf or groin area
- Uncontrolled pain
- No bowel movement in 3 days
- Fall without injury or loss of consciousness



Green Zone - Right where you need to be

ACTION: Do ankle pumps to prevent blood clots. Use ice as directed. Use incentive spirometer as directed.

You are in the Green Zone if you experience:

- Bruising and some swelling of the surgical site
- Pain managed with medication
- Normal bowel pattern
- Staying mobile (avoid long periods of sitting or lying in bed during the day)

Remember

- Use ice as directed
- Use incentive spirometer as directed
- Keep all appointments
- Take all medications as ordered
- Drink plenty of water and choose healthy foods to eat

Caring for yourself at home

When you go home, there are many things you need to know for your safety, recovery and comfort.

Comfort tips

- Take your pain medicine at least 30 minutes before physical therapy.
- Gradually wean yourself from prescription medication to a non-prescription pain reliever as directed by your doctor.
- Change your position every 45 minutes.
- Ice is an essential tool for reducing pain and swelling. Use ice/cold packs as instructed for the first several days after surgery. You may find it helpful to ice before and after your exercise program.
- Pineapple has natural anti-inflammatory properties from bromelain and may reduce inflammation, swelling and bruising after surgery. Be sure to check with your surgeon before adding to your diet!

A bag of frozen peas can be used as an ice pack or you can make your own ice pack by combining one cup of rubbing alcohol and three cups of water in a 1-gallon zip-top bag (double bag). Place this in the freezer until it turns into slush.

Body changes

- Drink lots of fluids to keep from getting dehydrated.
- A high-protein diet will promote wound healing.
- Do not sleep or nap too much during the day. You need to be up and moving.
- Pain medications that contain narcotics may cause constipation. Use stool softeners or laxatives, if necessary. A high-fiber diet can also help ease constipation. If you do not have a bowel movement in three days, call your surgeon's office.

Recognizing and preventing potential complications and infection

Incision care

- Follow the instructions given to you when you were discharged.
- Your surgeon will tell you when you may shower.
- If there is increased drainage, redness, pain, odor or heat around the incision, call your surgeon or a medical professional involved in your postoperative care.
- Take your temperature if you feel warm or sick.
 Call your surgeon if your temperature exceeds 101°F.

Prevention of infection

- Take proper care of your incision as ordered by your surgeon.
- Wash your hands before and after using the bathroom. Ensure all guests do the same. Keep hand sanitizer in convenient locations and use often.
- Talk with your surgeon and ask if you will need to take antibiotics for future procedures.
- Update your healthcare providers, including your dentist, that you have had a recent joint replacement surgery.

Signs of infection that need immediate attention

- Increased swelling and redness at the incision site
- Change in color, amount, and odor of drainage
- More pain in the joint that is not relieved by pain medication
- Fever greater than 101°F

Early, frequent mobility is very important after joint replacement. It is helpful for lung expansion, blood clot prevention and to prevent constipation.

Reduce the risk of blood clots in the legs

Blood thinners

After surgery, there is an increased risk of blood clots. Your surgeon may prescribe blood thinners to help decrease the risk. Please ask your care team if you have any questions.

Compression stockings

Some surgeons may order special compression stockings. Compression can help minimize swelling, improve circulation and can lower the chance of blood clots.

- If swelling in the operative leg is bothersome, elevate the leg for short periods throughout the day. It is best to lie down and raise the leg above heart level.
- Wear the stockings consistently as ordered by your surgeon.
- If you notice increased pain or swelling in either leg, call your surgeon or a medical professional involved in your postoperative care.

If ordered, your surgeon will choose either knee high or thigh high compression stockings for you to use.

Signs of blood clots in the legs

Please notify your surgeon if you experience:

- Swelling in thigh, calf or ankle that does not go down with elevation
- Pain, heat, redness and/or tenderness in the calf or groin area.

Pulmonary embolism

If you have a Deep Vien Thrombosis (DVT) — a type of blood clot — a portion of it could break away, and travel to the lungs. This may cause chest pain and/or shortness of breath. A pulmonary embolism is an emergency. You should call 911 if you suspect a pulmonary embolism.

Signs of a pulmonary embolism

- Sudden chest pain
- Shortness of breath
- Difficult and/or rapid breathing
- Confusion

Prevention of pulmonary embolism

Take these steps to reduce the risk of developing a blood clot that could cause a pulmonary embolism.

- Perform ankle pumps
- Take your blood thinner as direted.
- Walk several times a day.
- Wear compression stockings consistently as ordered by your surgeon.
- If you notice increased pain or swelling in either leg, call your surgeon or a medical professional involved in your postoperative care.

Blood clots can form in either leg. Let your surgeon know if you experience issues such as pain or increased swelling.

Top 10 reasons to heal at home

01

Healing at home reduces your risk of getting germs.

Yes, germs! Healthcare-Associated Infections (HAIs) are sicknesses caused by germs that people get while they are receiving care at a healthcare facility. HAIs can happen in any healthcare location and are caused by bacteria, fungi, or other pathogens. We take specific precautions to prevent HAIs. We want to prevent a HAI even after your stay at the hospital! While the home is not perfectly clean, there is a lower chance of getting germs there. Those germs that people might get at home are less dangerous and there is less opportunity to spread infections from patient to patient.

• Make sure your sheets, clothing and home are well cleaned before you return home. Have extra bottles of hand sanitizer for use by visitors and family members.

02

You have control of your environment.

Preparing your home before surgery will make returning home so much easier. Small things like installing night lights and finishing the laundry allows you to relax and focus on getting better. Pre-made meals from the freezer are an easy way to prepare a quick, healthy meal.

 Move frequently used items to the countertop level and remove throw rugs to lower the risk of falling.

03

You are not alone. We're here to help.

Most patients go directly from the hospital to home to heal. Once you are settled at home, you still have access to help, including your therapy provider, the Patient Navigator, your Coach, and your surgeon's office.

• The therapists in the hospital will prepare you to safely get around your home. This includes walking up and down stairs and getting in and out of the car safely.

04

You have more privacy.

As much as we respect your privacy in the hospital, nothing can compare to the comfort and privacy of your home.

- Remember: your Coach or other friend or family member will need to stay with you for at least the first 2 days.
- After the first couple of days, you will find that you may be able to do more than you think. It is a good idea to have someone come by and help with meals and housework.

05

You are prepared and know what to expect.

Participating in preoperative education will prepare you for an even better surgery experience. You have this patient and family guidebook with details about what to expect before, during and after your surgery. Additionally, the Patient Navigator is available Monday through Friday for your questions or concerns.

• There is also a video online that is available 24 hours a day for your viewing. This can be shared with friends and family too: SentaraOrthoEducation.com.

06

You will get better sleep.

Sleep is the body's time to rebuild, restore, and get well. Naturally, it is most important to have quality sleep to get better after surgery. You are more likely to get the best sleep at home in your own bed. At home, you won't have constant interruptions such as talking, equipment sounds, and unfamiliar beds. These interruptions can keep you from getting enough sleep, which can slow down the healing process.

07

You will get back to your schedule quicker.

The pace of your hospital stay can blur the days together. Going home can provide the opportunity to resume your normal routine sooner. Being in your home and having family and friends stop by for a visit can be helpful. It will lift your spirits and keep you alert and active.

• Try to avoid napping during the day while you are recovering. Eating small meals on a regular basis throughout the day may be more appetizing than three large meals.

08

At home you are in charge of medication timing.

With your Coach to help you, you can take your medication when you are ready for it. Rather than waiting for rehab staff to help or bring you medications, you can adjust your schedule to best suit your needs. Setting an alarm can help you keep on schedule.

• Pain medication that contains narcotics may cause constipation. Use stool softeners or laxatives, if necessary. A high-fiber diet can also help ease constipation. If you do not have a bowel movement in three days, call your surgeon's office.

09

You are like no other. Neither is your recovery.

Before you even got to the hospital, you had a personalized plan for what to do after your surgery. Your surgeon will determine your therapy needs after you leave the hospital.

• Talk to your surgeon about what will be recommended for your recovery, and make sure you keep your appointment for your follow-up visit with your surgeon.

10

Home may be the most cost-effective recovery option.

Each insurer offers a unique set of benefits that will determine any out-of-pocket expenses. Make sure you assess your recovery options and financial obligations.

Safety tips

Around the house

Safety and avoiding falls

- Place all frequently used items between waist and shoulder level for easy access.
- Pick up throw rugs and tack down loose carpeting.
 Cover slippery surfaces with carpets that are firmly anchored to the floor or that have non-skid backs.
- Be aware of all floor hazards such as pets, small objects or uneven surfaces. Your pets will be excited to see you! Have your Coach keep your animals secured until you are safely seated.
- Always maintain good lighting. Install night lights in the bathrooms, bedrooms and hallways.
- Keep extension cords and other cords out of pathways. Do not run wires under rugs; this is a fire hazard.
- Do not wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.
- Sit in chairs with armrests. It makes it easier to get up.
- Rise slowly from either a sitting or lying position to avoid getting light-headed.

Kitchen and bathroom

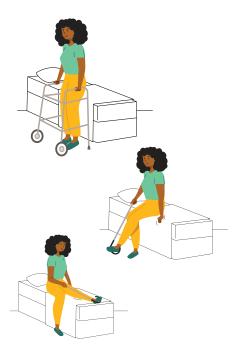
- Do not get down on your knees to scrub floors. Use a mop and long-handled brushes.
- Plan ahead! Gather all your cooking supplies at one time. Then, sit to prepare your meal.
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching.
- Use a high stool, or put cushions on your chair when preparing meals, for a better working height.

Get up and walk every 1-2 hours when you are awake. You may continue the exercises on pages 10 and 13 postoperatively. Just remember to follow any activity restrictions/precautions if ordered by your surgeon.



Activities of daily living

Below are general tips for safety and comfort during mobility. Please follow your surgeon's specific instructions regarding movement restrictions and/or hip precautions, if ordered. Any restrictions will be discussed by your care team and included in your discharge instructions.



Getting into bed

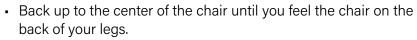
- Back up to the bed until you feel it on the back of your legs (you need to be midway between the foot and the head of the bed).
- Reaching back with both hands, sit down on the edge of the bed and then scoot back toward the center of the mattress.
- Move your walker out of the way, but keep it within reach.
- Scoot your hips around so that you are facing the foot of the bed.
- Lift your leg into the bed while scooting around (if this is your surgical leg, you may use a cane, a rolled bed sheet, a belt, or your elastic band to assist with lifting that leg into bed).
- Keep scooting and lift your other leg into the bed using the assistive device. Do not use your other leg to help as this breaks your hip precautions.
- Scoot your hips toward the center of the bed.



Getting out of bed

- Prior to sitting up, scoot your hips and legs to the side of the bed.
- Push up with your arms to sit up while lowering your nonsurgical leg to the floor.
- If necessary, use a leg-lifter to lower your surgical leg to the floor.
- Scoot to the edge of the bed.
- Use both hands to push off the bed.
- Balance yourself before taking your first step.





- Depending on pain level and range of motion immediately after surgery, it may be helpful to position the foot of the operated side slightly forward, while keeping the strong leg close to the chair for sitting.
- Reach back for an armrest one at a time.
- Slowly lower your body to the chair, keeping the leg of your operated side forward as you sit.



Sitting to standing

- Again, if needed initially for pain, position the foot of the operated side slightly forward, while keeping the strong leg close to the chair for standing.
- Scoot your hips to the edge of the chair.
- Push up with both hands on the armrests. If sitting in a chair without armrests, place one hand on the walker while pushing off the side of the chair with the other.
- Balance yourself before grabbing for the walker.





Do not pull up on your walker to help stand up. Sit in a chair with armrests whenever possible.



Walking with a walker

- Push the walker forward like a shopping cart, keeping it in contact with the floor.
- Step forward placing the foot of the surgical leg in the middle of the walker area, then step forward with the non-surgical leg.
- Maintain your body in the center of the walker frame. Do not stand too close or too far from the walker.
- Start slow by taking small steps and progress to a more continuous walking pattern with equal steps as you "loosen up."



Climbing stairs

- Ascend with non-surgical leg first (up with the good).
- Descend with surgical leg first (down with the bad).
- Always hold onto the railing.
- **Note:** as you climb or descend the stairs, both feet should be on the same step before you move to the next one.





Getting into a car

- Push the car seat all the way back; recline the seat back to allow access, but always have it in the upright position for travel.
- Back up to the car seat until you feel the seat at the back of your legs. Reach your hand behind you for the back of the seat, using the other hand to secure a spot on the frame or dashboard.
- If you need to use the car door or walker, have someone hold the "unsteady objects." Slowly lower to a sitting position. Scoot your hips back until you are securely on the seat.
- Leading with your hips, bring one foot into the car at a time until you are facing forward.
- **Note:** the car door and walker are **not** secure options.



Getting on/off the toilet

Follow the instructions for sitting/standing from a chair.

If you have low toilets, it may be beneficial to apply a toilet riser or bedside commode over the seat. These can be purchased at local drug stores or medical supply stores.



Getting into/out of the tub using a grab bar

If your shower is part of the tub, hold onto the front wall of the shower and step in or out sideways versus stepping in forward. Step in with the non-surgical leg first.

If you have a walk-in shower stall, step in, as usual. If a walk-in shower is not available, you may decide to bathe at the sink until you are strong enough to step over the side of the bathtub.



Although bath seats, grab bars, long-handled bath brushes, and hand-held showers make bathing easier and safer, they are typically not covered by insurance. These items can be purchased at your local pharmacy. If a walk-in shower is not available, bathe at the sink until you are strong enough to step over the side of the bathtub.



Dressing — putting on pants and underwear

- Sit down.
- Put your surgical leg in first and then your non-surgical leg. Use a reacher or dressing stick to guide the waistband over your foot.
- Pull your pants up over your knees, within easy reach.
- Stand with the walker in front of you to pull your pants up the rest of the way.



Dressing — taking off pants and underwear

- Using your walker, back up to the chair or bed where you will be undressing.
- Unfasten your pants and let them drop to the floor. Push your underwear down to your knees.
- Lower yourself down, keeping your surgical leg out straight.
- Take your non-surgical leg out first and then the surgical leg.
- A dressing stick or reacher can help you remove your pants from your foot and off the floor.



Dressing — how to use a sock aid

- Slide the sock onto the sock aid.
- Hold the cords and drop the sock aid in front of your foot. It is easier to do this if your knee is bent.
- Slip your foot into the sock aid.
- Straighten your knee, point your toe and pull the sock on. Keep pulling until the sock aid pulls out.



Dressing — using a long-handled shoehorn

- Use your reacher, dressing stick, or long-handled shoehorn to slide your shoe in front of your foot. Please make sure you are sitting on a stable surface.
- Place the shoehorn inside the shoe against the back of the heel.
 Have the curve of the shoehorn match the curve of your shoe.
- Step down into your shoe, sliding your heel down the shoehorn.

Note: this should be performed sitting. Wear sturdy shoes that enclose the heel such as tennis shoes, shoes with Velcro closures or elastic shoelaces. Do not wear high-heeled shoes or shoes without backs.

Living with your joint replacement

You need to have a regular exercise program to maintain the strength of the muscles around your joints. With both your orthopedic and primary care physicians' permission, you should be on a regular exercise program three to four times per week, lasting 20-30 minutes. Impact activities such as running and singles tennis may put too much load on the joint and are not recommended. High-risk activities such as downhill skiing are also discouraged because of the risk of fractures around the prosthesis and damage to the prosthesis itself. Below we have included recommendations.

Exercise recommendations

Choose low-impact activities when recommended by your surgeon. Examples include:

- Regular 1- to 3-mile walks outside or on a treadmill
- Stationary bike
- Aquatic exercises when cleared by your surgeon
- Regular exercise at a fitness center
- Low-impact sports such as golf, bowling, walking, gardening, dancing, swimming, etc. Talk with your surgeon or physical therapist about returning to specific sport activities.

Avoid engaging in high-impact activities or contact sports that require a lot of starts, stops, turns or twisting motions.

General recommendations

- Discuss with your surgeon if you should take antibiotics prior to any procedure.
- Although the risks are very low for postoperative infections, it is important to realize that the risk remains. A prosthetic joint could possibly attract the bacteria from an infection located in another part of your body. If you should develop a fever of more than 101°F or sustain an injury such as a deep cut, please report that to your surgeon's office.
- Please check with your surgeon if you are planning to travel after your surgery. When traveling, stop and change positions and do ankle pumps hourly.

Routine follow-up is important

General guidelines:

- Every year, unless told differently by your physician
- Anytime you have mild pain for more than a week
- Anytime you have moderate or severe pain

It is important for you to have regular follow-up care with your orthopedic surgeon:

- If you have a cemented joint, they need to assess the integrity of the cement.
- Your prosthesis may wear.

X-rays taken at your follow-up visits can detect these problems. Your new X-rays can be compared with previous images to make these determinations. This will be done in your doctor's office.

Frequently asked questions

How long will my new joint last and can a second replacement be done?

All implants have a limited life expectancy depending on an individual's age, weight, activity level, and medical condition(s). A total joint implant's lifespan will vary in every patient. Remember that an implant is a medical device subject to wear that may lead to mechanical failure. While it is important to follow all of your surgeon's recommendations after surgery, there is no guarantee that your particular implant will last for any specified length of time.

Will I need a walker or a cane?

Yes, initially you will need a front-wheel walker.

Patients progress at their own rate. Your physical therapist will assess your equipment needs.

Will I need physical therapy when I go home?

Your surgeon will determine your therapy needs after you leave the hospital.

Will I need help at home?

Yes. Your Coach or another responsible person needs to stay with you for at least the first two days after you return home from the hospital. They will help you at night, administer pain medication, assist with meals and encourage you to perform your home exercise program.

Having a Coach is an important part of your recovery. If you do not have a Coach or a team of people who are prepared to assist you, please discuss this with your surgeon.

What are the major risks?

Infection and blood clots are two potential complications of surgery. To avoid them, your surgeon may use antibiotics and blood thinners.

Use the resources discussed in this book to decrease the potential of these risks.

Will the surgery be painful?

You will have discomfort after surgery, but we will try to keep you as comfortable as possible with the appropriate medication.

How long and where will my scar be?

There are a number of different techniques used for joint replacement surgery. The type of technique will determine the exact location and length of the scar.

Will my new joint set off security sensors?

Your joint replacement is made of a metal alloy and may or may not be detected when going through some security sensors. Inform the security agent that you have a joint replacement. The agent will direct you on the security screening procedure.

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Notes

Medication list(s)

This list is for the medications you are currently taking (prior to surgery). On the next page you will find a place to record your postoperative pain medication instructions and medications for blood clot prevention.

Drug name	How much do you take?	When do you take it?	Why do you take it? (e.g., high blood pressure)	Instructions given about use before and after surgery.	
Make a quick note of any specific medication questions you want to ask your doctor.					
Allergies:					

Write down the medications and instructions you were given for postoperative pain medication:

Drug name	How much will you take?	When will you take it?	Why was it given to you? (e.g., relieve pain)	Instructions given about the medication.

Write down the medications and instructions you were given for postoperative blood clot prevention:

Drug name	How much will you take?	When will you take it?	Why was it given to you?	Instructions given about the medication.



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Atención: si habla español, tiene a su disposición servicios lingüísticos gratuitos. Llame al 844-809-6648.

주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 844-809-6648 번으로 전화해 주십시오.

注意:如果您讲中文普通话,则将为您提供免费的语言辅助服务。请致电 844-809-6648。

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