# **KNEE REPLACEMENT PATIENT MANUAL**



## **Table of Contents**

Nelcome	1
Preparation Checklist	2
Frequently Asked Questions	5
<ul> <li>Before Surgery (i.e.: joint injections, manicure, vaccines, arrival time day of surgery, what to brin anxiety, etc.)</li> </ul>	
<ul> <li>After Surgery (i.e.: swelling, lotions near incision, restarting medications, showers, bathing, swimming, driving, golfing, going to the beach, sexual activity, traveling, airport security, pain medication refills, compression stockings, dentist appointments, iron supplements, etc.)</li> <li>Having Another Joint Replaced?</li> </ul>	
Preparing for Your Surgery	9
Complete Medical History and Medications You Take	9
List of Medications to Stop Before Surgery	10
Infection Prevention Steps (Before Surgery Showers and Antibiotics)	12
Preparing Your Home	13
» Home Safety	13
» Set Up for Kitchen	13
» Set Up for Bathroom	13
» Household Tasks	13
Equipment You'll Need	14
Your Coach	16
Anesthesia	17
Possible Issues After Surgery	18
Bladder or Urinary Tract Infections (UTIs)	18
Blood Clots	18
Constipation or Ileus	19
Fractures	19
Nerve Injury	19
Pneumonia	20
Stiffness	20
Urinary Retention	20
Long-Term Wear	20

Surgery Day	
In the Facility	21
Getting into the Car	23
The First 24 Hours at Home	24
Medications Commonly Prescribed	25
Ice Is Your Best Friend!	26
Your Daily Routine at Home	27
General Guidelines	27
Pain Management	
Incision Care	
• Diet	
Breathing Exercises	
Activity Recommendations	
2 Weeks After Surgery	
What to Expect	
Guidelines for the Next 4 Weeks	
6 Weeks After Surgery	
What to Expect	
Guidelines Going Forward	
About Your Surgery	
Directions to Each Surgical Facility	

# Welcome

Thank you for choosing OrthoSC for your upcoming joint replacement. We have created a team to help you before, during, and after your surgery. In addition to our surgeons who are leaders in their field, our experienced team includes anesthesiologists, nurse anesthetists, physician assistants, nurse practitioners, surgical technicians, physical therapists, and nurses who are expertly trained and dedicated to serving you with exceptional skill and compassionate care.

We are committed to using "best practice" techniques and processes to make your surgery a smooth, safe, and positive experience. Your program will be seamless and well-coordinated, starting when you first begin considering surgery and extending to the end of your rehabilitation. Our care navigator will be available to assist you throughout the joint replacement process as you return to your new and improved quality of life.

While joint replacement surgery has traditionally been done in a hospital, ambulatory surgery centers can now provide the same services. Innovations in anesthesia, pain management, and the surgery itself all combine to make these centers a safe, efficient, and comfortable alternative. Together, you and your surgeon will determine which option is best for you based on the specific procedure being done, your medical history, home situation, personal wishes, and insurance coverage.

The care provided by our team of medical professionals does not end when your surgery is done. Our care navigator will continue to watch and support your recovery while you are at home to make sure you understand your discharge instructions and are doing well, guiding you to a safe and successful outcome. Please reach out to the navigator, or any member of the team, along the way should you have any questions or concerns.

As a team, our goal at OrthoSC is to provide you with the best experience, coordinated care, and quality outcomes possible.



# **Preparation Checklist**

This checklist is a summary. All the items you see here are explained in detail later in this manual. The checklist will make sense and be helpful once you have gone through the rest of the information. Please tear this checklist out and post it at home where you can refer to it as you take all the steps necessary for surgery. It will help you keep the details straight preparing both for surgery and recovery. Be sure to make a checkmark next to items that have been completed.

We hope you find this tool helps to guide you through the activities you'll need to do to be prepared for your surgery.

### WHEN YOU DECIDE TO HAVE SURGERY (OR ABOUT 4 WEEKS BEFORE SURGERY)

- Read this manual and make a list of questions to ask your care team.
- See any specialty doctors required before surgery i.e.: cardiology (heart), nephrology (kidney), pulmonary (lung).
- □ Attend or watch the total joint replacement pre-op class (see Preparing for Surgery section).
- Decide who will be your coach (See Coach section).
- □ Stop smoking to improve healing and reduce the risk of infection after surgery.
- □ Start getting CareSense reminders and messages.

### **ABOUT 3 WEEKS BEFORE SURGERY**

Complete lab work and testing ordered and scheduled by your surgeon (you can eat and drink as usual before these tests).

### **ABOUT 2 WEEKS BEFORE SURGERY**

- □ Have medical clearance/physical appointment (either in primary care or surgeon's office).
- D Meet with care navigator, if necessary, to confirm final discharge plans.
- □ If you plan to use a cold therapy machine, buy it while in surgeon's office.
- □ Buy walker, cane, and/or raised toilet seat; (see Preparing for Surgery section).
- Physical therapy (PT) appointments for after surgery should have been scheduled if needed (PT clinic will call you to schedule if therapy will be needed).
- □ Arrange for someone to drive you home from surgery.
- □ Arrange for someone to drive you to physical therapy appointments and doctor visits.
- □ Begin preparing your home, meals, and pet care for after surgery (see Preparing for Surgery section).

### THE WEEK BEFORE SURGERY

- Avoid activities that could result in blisters, cuts, or breaks in your skin. This includes yard work, getting a sunburn, or getting scratched by a pet.
- □ Stop shaving legs.
- Purchase Hibiclens liquid soap (8 oz bottle) and get Mupirocin (antibiotic ointment) from your pharmacy (See Preparing for Surgery section).
- □ **If having surgery at a surgery center**, pick up medicines you'll need for the day of surgery from your pharmacy (the prescription will be sent to your pharmacy by your surgeon).
- □ Map out the drive to surgery facility if not already familiar (see Maps and Directions section).
- **D** 5 days before surgery: Start putting antibiotic ointment in nostrils twice a day (See Preparing for Surgery).
- □ 3 days before surgery: Start Hibiclens showers each evening (See Preparing for Surgery section).
- **2** days before surgery: If ordered, start taking Flomax (Tamsulosin) daily.

#### Please fill in this Infection Prevention Calendar with " $\sqrt{}$ " marks as you complete the tasks.

	Fill in your dates below	Morning-ointment in each nostril	Evening-ointment in each nostril	Hibiclens shower
5 days before surgery, the date is:		□ when done	when done	(not yet)
4 days before surgery, the date is:		when done	when done	(not yet)
3 days before surgery, the date is:		□ when done	□ when done	when done
2 days before surgery, the date is:		when done	when done	when done
1 day before surgery, the date is:		when done	□ when done	when done
Morning of surgery, the date is:		□ when done	N/A - all done!	<ul><li>when done (before surgery)</li></ul>

### THE NIGHT BEFORE SURGERY

- Gather insurance card, driver's license (or other photo ID), medications your surgeon ordered for after surgery (if surgery is at a surgery center), walker (unless told the facility will get one for you), CPAP if you use one.
- □ Find a case or container to store your contact lenses, glasses, hearing aids, or dentures in while you are in surgery. Your coach or family member will keep them for you during your surgery.
- □ Stop eating and drinking at midnight per facility's instructions (instructions may vary by facility according to your medical history).

### THE MORNING OF SURGERY

- □ Take Hibiclens shower.
- D Put final dose of antibiotic ointment up nostrils.
- □ Bring picture ID and insurance card.
- □ If you have sleep apnea, bring your CPAP equipment per facility instructions.
- □ Wear shorts or pants that are loose, baggy, and easy to get on and off (elastic waist is easiest); wear slip-resistant shoes.
- Bring your walker (you may be asked to leave it in the car).
- □ Absolutely no jewelry or metal objects may be worn during the surgery; remove wedding ring and all other jewelry before leaving home.
- Do not use deodorant, powders, or lotions.

If your surgeon expects you to stay overnight, bring overnight bag with personal toiletries, case or container for eyeglasses, dentures and/or hearing aids, cell phone charger, etc.

# **Frequently Asked Questions**

### **BEFORE SURGERY**

### I am scheduled for surgery, but the joint pain is getting worse. Can I get an injection?

No. Your surgeon doesn't recommend an injection in the joint within 3 months of your planned surgery.

### Can I get a manicure/pedicure before/after surgery?

You may get a manicure or pedicure before or after your surgery, but you should avoid having cuticles trimmed or other services that may cause bleeding (avoid for 6 weeks after surgery). The day of surgery, a monitor that clips to your finger or toe will measure your oxygen level; nail polish, gels, and acrylics can interfere with it working properly. Each hospital and surgery center has their own guidelines regarding nail polish, gels, or acrylics. If you have questions, PLEASE ASK THE FACILITY TEAM during your pre-operative call or visit.

### Can I get a vaccine before/after surgery?

Your surgeon recommends avoiding all vaccines for 2 weeks before and 2 weeks after your surgery. Your body will be working hard to heal from surgery, so it's best to avoid anything else that can stress your immune system.

### I am very anxious about having surgery. Is this normal? Is there anything I can do?

Being anxious or nervous about surgery is completely normal! We hope that the information and support we're giving you in our office and in this manual will help. However, if you have a diagnosis of anxiety or depression, you may want to consult the healthcare provider who treats it to make sure that it is managed well now and through your recovery.

### When will I be told what time my surgery will be and when to arrive?

You will get a phone call to tell you exactly what time your surgery is and when to arrive at the facility:

- The call will be the day before surgery, between 9:00 a.m. and 5:00 p.m.
- If your surgery is on a Monday, you will get a call on Friday afternoon.

Please be sure you have given your care team your current phone number.

Please answer your phone the day before surgery for this important call.

Please have any last-minute questions written down so you don't forget to ask them when you receive this call.

### What do I bring with me when I come for surgery?

You'll be asked to bring items based on your medical history, the surgery you're having, and the facility where you are going:

- All patients: Bring insurance card and photo ID (such as driver's license); bring Advance Directive if you have one.
- If you have sleep apnea: Bring your CPAP equipment per facility instructions.
- If you are going to stay overnight in the hospital: Bring an overnight bag with clothes, your walker, and personal items (phone, book, toothbrush/ toothpaste, etc.).

### Who do I call with questions about my insurance coverage for my surgery?

The best information will come directly from your insurance company. Call the phone number listed on your insurance card for answers to questions such as:

- If your surgery has been approved (for both surgeon and the facility you are going to)
- If physical therapy and/or equipment is covered
- An estimate of what your insurance will pay and what you will owe

If you still have questions about the billing for the facility where you are having surgery, please call that facility directly. The main facility phone numbers are listed in the Maps and Directions section of this manual.

### **AFTER SURGERY**

### I have a lot of swelling and/or bruising down to my ankle. Is something wrong?

No. Some bleeding can be expected at the surgical site, causing bruising and swelling. It often gets worse in the early days after surgery. You may be bruised/swollen on the back of your leg or buttock, even if the incision is in the front. That's because gravity pulls bruising toward the back while you're sitting and toward the foot while you're upright. Your body will reabsorb this fluid over time, but if the swelling becomes significantly uncomfortable or worries you, please call our office.

### Can I use cocoa butter, NEOSPORIN<sup>®</sup>, vitamin E, or other creams/lotions on my incision?

No, not for at least 6 weeks. If you want to use any of these creams/lotions, ask your surgeon's team at your 6-week post-operative visit if it is okay to do so.

#### When can I restart medications, herbals, or supplements that I had to stop before surgery?

After your surgery, we'll give you a list of medications your surgeon wants you to take at home. Feel free to ask about specific medications not on that list. Please do not start taking other medications, herbals, or supplements until your 2-week post-operative visit. At that time, you will most likely be allowed to resume taking them.

### Can I shower?

Yes. You may shower when you go home, providing there is no active drainage from the incision. Your dressing is waterproof enough to shower if you avoid getting it completely soaked with water; cover it with plastic wrap or a plastic bag to help protect it. At your first post-operative visit, your dressing will be removed; you can now clean around the incision (but not the incision itself) with mild soap and water.

#### Can I bathe or swim?

No. Do not take a bath, swim, or submerge the incision in a bathtub, hot tub, pool, river, or ocean for at least 6 weeks to allow complete healing.

### When can I drive?

There is little if any formal research that says when it is okay to drive safely after knee replacement. Typically:

- No one should attempt to drive before their 2-week post-operative office visit.
- After left knee replacement, wait until you have finished taking narcotic pain medication and are moving about easily. This may be around 3 4 weeks after surgery.
- After right knee replacement, wait 4 6 weeks. The muscle control and coordination needed in the right leg to drive safely usually takes this long to recover.

### When can I go to the golf course or beach?

Not until after your first post-operative office visit. At that time, you should ask about walking on uneven surfaces such as grass, a golf course, or the sand at the beach. For the first 2 weeks, you can walk outside, but you should stay on hard, level surfaces such as patios, decks, or sidewalks.

### When can I travel out of the area?

The main concern with traveling is sitting in a car or airplane for long periods of time, risking the formation of a blood clot in your leg. However, several studies have shown that, if certain steps are taken, it can be safe to travel fairly soon after your surgery. You'll need to wear compression stockings and do ankle pump exercises frequently. Check with your surgeon about your specific plans.

- By car: You should wait until your first post-operative office visit for your surgeon's final approval of your travel plans. If you are approved to travel by car, make sure to move the car seat back as far as possible to give yourself room to move and exercise your legs. Do ankle pump exercises frequently, and stop the car to take a short walk every 1 2 hours.
- **By plane:** You should typically wait 6 weeks after your surgery. If you need to fly sooner, talk to your surgeon before your surgery. During the flight, do ankle pump exercises frequently, and get up and walk the aisle of the airplane every 1 2 hours.

### When I fly, will I have difficulty getting through airport security?

Your implant will likely set off security scanners. There is no card or paperwork that will change this. Plan to arrive early so you will have time to get through security. Simply explain to the security staff about your implant and be patient as they do their job.

#### If I need to refill my pain medication prescription who should I call?

Call our office or send a request through the Patient Portal. Please remember to contact us well before you run out. When requests are sent early in the day, we usually can renew prescriptions by the end of the business day. However, several factors including insurance rules can slow this process, so plan ahead, especially if the weekend or a holiday is coming up soon.

#### How long will I need to wear compression stockings?

You will likely need to wear compression stockings on both legs, 23 hours a day for the first 2 weeks until your follow-up visit in the office. Plan ahead because taking them off and putting them back on each day can be difficult as you're recovering, and you may need help doing this.

### Can I go to the dentist? Will I need to take antibiotics when I go to the dentist?

#### **Before surgery**

To make sure you are well healed and there is no infection when you have your joint replacement, follow these guidelines:

- Simple cleaning or fillings: At least 3 weeks before surgery
- Single tooth pulled or single implant: At least 3 weeks before surgery
- Multiple teeth pulled or implants: At least 3 months before surgery

### After surgery

- First 3 months: Avoid dental procedures if at all possible.
- 3 months to 1 year: You must take antibiotics before any dental visit.
- After the first year, antibiotics are only needed if:
  - ◊ You have a medical condition or take medications that suppress your immune system.
  - ♦ The dental work is for a tooth abscess or infection.
  - ♦ You have had joint revision (repeat) surgery.

### Will I need to take iron or have a blood transfusion?

Patients having joint replacement surgery rarely require a blood transfusion. Our team will pay close attention to your hemoglobin count (a measure of how much oxygen-carrying capacity is in your blood) before surgery. If your level is not high enough, your surgery will be delayed until it can be treated medically and elevated to a level that would be considered safe for surgery.

If your surgeon thinks you would benefit from it, he or she may recommend that you take an iron supplement (such as Vitron-C<sup>®</sup>) starting a few weeks before surgery.

- You can buy Vitron-C at your local drugstore without a prescription.
- It should be taken after meals.
- It can change the color of your stools to a tarry black.
- It can often be very constipating—please use a stool softener or laxative.

#### How long must I wait until I can have a second/another joint replaced?

Usually it is best to wait 3 months so you are more fully recovered from the first surgery. There may be reasons to make an exception, so talk to your surgeon if you want to discuss other options.

#### How long should I wait to resume sexual activity after surgery?

In general, sexual activity may resume as soon as your knee is comfortable enough. Please discuss any specific questions or concerns with the care navigator or your physical therapist.

#### What could cause confusion after surgery, and is it common?

Sudden confusion after surgery is not expected, but it may happen, especially in older adults when taking pain medications (opioids). It may begin quickly or appear a few days after surgery. The confusion can be constant or may come and go. Since there can be other causes of confusion such as low sodium, low potassium, or infection, we highly recommend you, your coach, or a family member notify your surgeon immediately if you're experiencing confusion.

# **Preparing for Surgery**

OrthoSC will be with you every step of the way helping you prepare for your surgery! Some of the people or resources available to you throughout your program include:

- Your Care Navigator: Your care navigator will be monitoring your progress all along the way—after lab work is done, after doctor's visits, etc. You may call your navigator with any questions or concerns you may have.
- **CareSense:** Our system of reminders and check-ins. If you haven't already, you'll be asked to sign up for your preferred way of getting messages (app on your phone, text messages, emails, messages on your landline phone). CareSense will then send you brief reminders and updates all along your program pathway. After surgery, it will also send you questions so we'll know how you're doing in between office visits.
- **Pre-Op Class:** Everyone learns differently. For this reason, all joint replacement patients are required to attend a class that will reinforce some of the information from this manual as well as new information. We will schedule you to attend.

### Your Medical History

In order to keep you safe and healthy through surgery, anesthesia, and recovery, we need to know all details related to your medical history, medications you take now or have taken in the past as well as any allergies you have. Without this information, we cannot care for you properly.

### In particular, we need you to tell your care team:

- All details of your medical history
- If you have had any infections within the last 2 months
- If you are prone to infections of any kind
- If you have frequent UTIs (bladder infections)
- If you frequently get pneumonia

**If you have diabetes**, you are at a higher risk of infection. You will be tested for overall blood glucose control before surgery to ensure the risk is minimized. You should have a healthy diet and maintain a hemoglobin A1C of < 7.0 to reduce your risk.

**If you are overweight (more than 20 lbs)**, you may also be at a higher risk of infection. Any healthy steps you can take to lose weight before surgery will help lower your risk of infection and make recovery easier.

**If you smoke**, you will be asked to stop since smoking also increases the risk of infection after surgery. If you need support, we can help you access local resources to help you stop.

**Any infection in your mouth** can easily travel to other parts of your body. If you have an abscessed tooth, it should be taken care of at least 3 weeks before your surgery. If more than just 1 tooth, they should be taken care of at least 3 months ahead of surgery.

### **Medications You Take**

Your surgeon and the joint replacement team need to know all medications, supplements, and vitamins you take as well as lotions/creams you may use. This includes:

- Prescription medications
- Over-the-counter medications
- Herbals or supplements
- Vitamins
- Lotions, creams, or ointments

Note: Some of these products can thin your blood which puts you at risk, since you may bleed more during and after surgery. Your surgeon needs to know about all of these items and will tell you whether or not it is okay to continue using any of them.

The next page includes medications and products you need to stop taking before your surgery as well as information about when you need to stop. If you don't stop or forget, your surgery will likely need to be cancelled and rescheduled for a later day.

Finally, please do not start taking any new medications or supplements between now and your surgery without asking your surgeon first. If you do, and the medication thins your blood, your surgery may be postponed.

### **Medications to Stop Before Surgery**

You will need to temporarily stop taking the following medications before your surgery. These medications can thin your blood, change its clotting, and slow the healing process after surgery. Be aware: many over-the-counter products may have some of these ingredients and must also be stopped. Creams and lotions must also be stopped if they have any ingredients on the list.

### STOP THESE MEDICATIONS/VITAMINS/HERBALS/SUPPLEMENTS 14 DAYS BEFORE SURGERY

Arava® (Leflunomide)	Gar
Chondroitin	Ging
Diet Pills	Ging
Energy Drinks	Gin
Ephedra	Glu
Fish Oil (any type or brand)	Lova

Garlic Ginger Gingko Ginseng Glucosamine Lovaza St. John's Wort Turmeric Valerian Vitamin E

### STOP THESE MEDICATIONS 7 DAYS BEFORE SURGERY

**Remember:** Many over-the-counter products including lotions or creams may contain any of these as ingredients (I.e. Aspercreme<sup>®</sup> contains aspirin, Voltaren comes as a cream, etc.). We can't list every product—there are new products every day. You need to know the ingredients that are in the products you use! If you need help, you can take this list to your pharmacy and ask about any over-the-counter products you may have.

Advil	Соре	Lodine
Aleve	Daypro	Meloxicam
Alka-Seltzer	Diclofenac	Midol®
Anacin®	Disalcid	Mobic
Anaprox	Ecotrin®	MOTRIN®
Arthrotec	Efficin	Nalfon
Ascription	ENBREL	Naprosyn
Aspercreme	Empirin	Naproxen
Aspirin (any product containing	Etodolac	Oxaprozin
aspirin)	Excedrin <sup>®</sup> Products	Piroxicam
Azathioprine (Imuran)	Feldene	Sulfasalazine
Bayer Products	Fenoprofen	Sulindac
BC Powder <sup>®</sup> Products	Fiorinal	Tolmetin
Bufferin	Goody's <sup>®</sup> Products	Vanquish
Cama	lbuprofen	VIMOVO
CELEBREX	Indocin	Voltaren
Celecoxib	Indomethacin	Zipsor
Clinoril	Ketoprofen	

### STOP THESE MEDICATIONS: THE DOCTOR WHO PRESCRIBED THEM AND/OR YOUR SURGEON WILL GIVE YOU SPECIFIC INSTRUCTIONS

The timing listed is common; follow your doctor's instructions.

ELIQUIS (Apixaban) – 3 days	PRADAXA – 5 days
Plavix (Clopidogrel) – 7 days	Ticlid (Ticlopidine) – 14 days
Pletal – 2 days	XARELTO® (Rivaroxaban) – 3 days
	Plavix (Clopidogrel) – 7 days

Effient (Prasugrel) - 10 days

### MEDICATIONS TO TAKE THE MORNING OF SURGERY: THE NURSE AT THE FACILITY WHERE YOU ARE HAVING SURGERY WILL TELL YOU WHAT MEDICINES, IF ANY, TO TAKE THE MORNING OF YOUR SURGERY.

# **Infection Prevention**

Wound infection is a risk with any surgery and may occur even in our healthiest patients. Pre-operative history, physical, and lab test results will confirm that you have no active infection before surgery. The chance of infection is very small, and we will do everything possible to minimize the risk, but we need your help in the following ways.

For all patients, any source of bacteria within your system must be eliminated before your surgery. There is a common bacteria (staphylococcus aureus or staph) that lives on the skin and in the nasal passages of most adults. It causes no problems when you are healthy, but when you have surgery, these bacteria can sometimes cause an infection. This is especially serious when caused by a type of staph called Methicillin-resistant Staph aureus (MRSA). Our team has created the following research-based, proven process to follow to help reduce your risk of post-operative infection:

**Before surgery, you will be asked to do two things** to decrease the amount of staph bacteria on your body. Please use the Calendar in the Preparation Checklist to keep track of these activities. Your care team will be sending a prescription for this to your pharmacy.

- 1. Apply Bactroban/Mupirocin ointment to the inside of each nostril twice daily starting 5 days before surgery. Some brands have directions that say "not for use in nose." Please disregard, as using the ointment in the nose is widely accepted before surgery, is safe, and is what your surgeon has planned.
- 2. Shower daily starting 3 days before surgery with Hibiclens liquid soap. Purchase an 8 oz bottle from your local drug store or any retail store with a pharmacy.

### How to Use Antibiotic Ointment

Twice a day for 5 days, apply a pea-sized amount of the Bactroban/Mupirocin ointment to the inside of each nostril. Gently pinch your nose several times to get the ointment to stick to the lining of your nostrils.

### How to Shower with Hibiclens Soap

- DO NOT use the Hibiclens soap on your head, face, or genital areas. It is too strong and irritation may result.
- IF YOU NOTICE SKIN IRRITATION, CALL US BEFORE TAKING ANOTHER SHOWER.
- If you're washing your hair, wash and rinse it using your usual products before using Hibiclens.
- Completely rinse the shampoo (and conditioner or other products) from your hair and body.
- Wash your face and entire body with your usual soap.
- Completely rinse the soap off.
- Now you're ready to start the Hibiclens shower. Turn off the water to prevent rinsing it off too soon.
- Using 1/4 of the Hibiclens bottle of liquid soap, pour a small amount into your hand so you can rub it on your skin starting at your neck and arms and working down to your feet—remember to avoid head, face, and genital areas.
- Once you've covered everywhere you can reach, continue to gently rub in the Hibiclens soap around the joint having the surgery for 3 minutes.

- After the 3 minutes, turn the water back on and rinse the Hibiclens off with warm water.
- DO NOT use regular soap after washing with the Hibiclens—only before.
- Dry off your surgical leg first, then the rest of your body using a fresh, clean towel. Use a fresh, clean towel after each shower (do not reuse the same towel).
- Dress in freshly washed clothes after each shower.
- Do not use lotions, powders, or perfumes after showering.
- On the morning of surgery, do not use deodorant.

### **Preparing Your Home**

Setting up your home now will help reduce your risk of falling and make your daily routine easier after surgery. Some suggestions:

- Check for tripping hazards.
- Remove any loose rugs.
- Remove any long phone or electrical cords that lie across the floor.
- Remove any items from stairs or in hallways, including books and magazines.
- Get night lights for your bedroom, bathroom, and hallway if you frequently get up at night.
- Make sure all handrails are secure.

Set up your kitchen:

- Arrange frequently used utensils and food on shelves or on the counter so they're easy to reach.
- Prepare and freeze meals in advance.
- Buy microwaveable foods that can be prepared easily.
- Attach a plastic grocery bag and cupholder to your walker so you can carry small items.
- Have plastic containers and travel mugs available. They make it easier and safer to carry food or drink to the table while using a walker.

Set up your bathroom:

- Arrange all personal care items, like toothbrushes and toothpaste, where you can easily reach them.
- Keep a low pile rug with rubber backing in front of your tub or shower to help prevent you from slipping.
- Find someone or several people who can help you with household tasks for the first few weeks after your surgery. Examples of things they can do for you include grocery shopping, laundry, getting the mail, and feeding or caring for your pet.
- Prepare now if you'll be with young children for the first few weeks after surgery. For example, small children need to be told that you will not be able to pick them up or hold them for a while. Practice having them climb up to sit next to you on their own chair prior to your surgery so they understand what to do when you come back home.
- If you have pets, you'll need someone to walk them, let them out, and feed them until you are strong enough to do so. Before surgery, be careful not to get scratched by a pet. Cuts and deep scratches are

the most common causes of surgery being postponed at the last minute.

- Decide where you think you'll want to spend most of your time during the day. Firm chairs with armrests are usually the most comfortable and easiest to get in and out of. A low sofa is not recommended, as it makes sitting down and standing back up more difficult, and it only has an armrest on one side from which you can push up. A chair with wheels is not safe, even if it has brakes.
- Keeping your feet elevated higher than your heart will help decrease swelling in your legs. Find something that elevates your feet to this height that you can use most of the time during the day.
- Stock up on books, movies, or other projects to do while recovering at home. Don't feel guilty if you don't get as much done as you had planned. Your goal is focusing on rest and recovery as well as building your endurance and independence—the rest will happen on its own.

### **Equipment You Will Need**

A walker and cane are standard equipment used by most patients after knee replacement surgery. A raised toilet seat is helpful if your toilet is low or you already have difficulty getting up and down. Your care team will assist with ordering the walker and/or raised toilet seat, but you will need to purchase the cane yourself since it is NOT covered by insurance. Canes are sold at most pharmacies and grocery stores.

- 1. Walker (with 5" wheels on front)
- 2. Straight cane
- 3. Raised toilet seat (also called bedside commode or 3-in-1)



Walker with 5" wheels







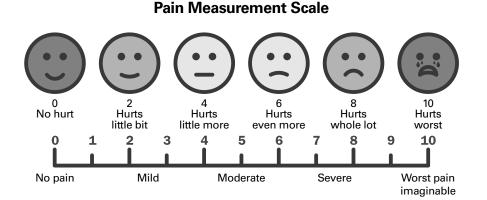
Raised toilet seat - fits over toilet

### **Practice Using the Pain Scale**

After surgery, you need to tell your surgeon and care team how you are feeling using a pain scale. We want you to be comfortable, but we also need you to be awake and alert enough to participate in therapy and to be safe walking and taking care of yourself at home.

We will ask you to describe your pain level using a scale of 0 - 10. Unless you have had surgery before, this will be new for you, so we suggest you practice using it before surgery. To do this, several times a day, think about how strong your pain is and give it a number:

- 0 = no pain.
- 10 = unbearable pain, the worst you can possibly imagine.
- 4 = you have pain, but it is manageable. You hurt, but you could concentrate to do an activity like reading, watching TV, or playing cards.



The goal is to keep your pain level at a 4 or better. You may need to take medications on a schedule to "stay ahead of the pain" and to take pain medication about 30 minutes before physical therapy visits.

After surgery, if you have pain in the ranges below, we usually suggest:

- Pain 0 3: TYLENOL® (Acetaminophen)
- Pain 4 6: Tramadol or other lighter opioid pain medication
- Pain 7 10: Oxycodone or other stronger opioid pain medication as prescribed

# **Your Coach**

Select a coach who will help you prepare for surgery and who will help you afterwards. This person can be a spouse, family member, friend, neighbor, or even several people joining together to provide support. A coach may want to watch or attend your pre-op class with you. This is not mandatory, but it is very helpful so they know what to expect.

Your coach will support and assist you for the first few weeks. Although our goal is for you to be quite independent when you go home, there will be some things you'll need help with. In particular, you'll need someone with you at night for the first week because, understandably, you'd probably be reluctant to call a neighbor if you need something during the night.

Coaches are an important part of this program and of your success. Please don't hesitate to ask for help before and after your surgery and, remember, it's only temporary. We have found that patients have a smoother recovery if someone is there to support them along the way, and published studies even suggest patients with a coach have improved outcomes.

If you have tried, but can't identify anyone to be your coach, let us know as soon as possible so we can help you make other arrangements.



## Anesthesia

Anesthesia is defined as the intentional loss of pain sensation for the purpose of surgery or painful procedures. OrthoSC is committed to providing excellence in all aspects of anesthesia to create the safest, most pleasant experience possible regardless of where your surgery is performed.

Your anesthesia team will meet with you the morning of your surgery. They will conduct a pre-operative interview based on the information you've already given us and the medical clearance you've already had. They may ask you some of the same information including medications you've stopped taking, your medical history, and previous anesthesia experiences. From this information, the specific anesthesia plan will be customized to best meet your unique needs. There will be ample opportunity for you to ask questions or share concerns. Our goal is for you to feel as comfortable as possible before, during, and after surgery.

We perform knee joint replacement with one of two types of anesthesia:

**General Anesthesia:** General anesthesia can be used for any joint replacement procedure, including knee replacement. It produces temporary unconsciousness with loss of feeling throughout the entire body. It involves multiple drugs and gases in order to safely "get you to sleep" and ensure that you feel and remember nothing during your surgery. Breathing is safely managed through a tube placed either into the back of your throat or into your windpipe.

**Regional Anesthesia:** Regional anesthesia produces a temporary loss of feeling and ability to move a specific area of the body. It is performed using drugs called local anesthetics (numbing medications) injected near nerves in the body part having surgery. There are two types of regional anesthesia commonly used:

- Spinal Anesthesia: Produces loss of feeling and movement in the lower half of the body. After a patient is given mild sedation by IV, a spinal injection is performed to produce the desired effect which will typically last about 2 3 hours, giving your surgeon plenty of time to perform your joint replacement. Typically, a spinal anesthetic offers less likelihood of nausea/vomiting, post-operative sedation or grogginess, or severe pain. For these reasons your surgeon will likely offer this as a preferred method since you are having a knee replacement.
- Peripheral Nerve Block: Produces loss of feeling/movement in a specific limb such as an arm or leg. It is often combined with general or spinal anesthesia.

# **Possible Issues After Surgery**

There are potential risks with any surgery. Outlined below are some of the potential complications associated with joint replacement surgery along with the steps you can take to help prevent them. The chances of complications are small and are almost always treatable. We will do everything possible to make your recovery smooth. However, it is important for you to be well-informed so you can identify any issue that arises, and let us know so we can address it quickly. It is our goal to keep you safe and make your surgical experience as smooth as possible.

This list is not intended to cover all possible complications related to joint replacement surgery, only the more common ones. By discussing your exact procedure, its risks and benefits, techniques used, alternative treatments, and expected outcomes, we hope to reassure you of our commitment to your well-being and return to an active lifestyle.

### Bladder or Urinary Tract Infection (UTI)

After surgery, it is important to drink plenty of fluids to prevent these infections. If you experience any signs or symptoms of a bladder or urinary tract infection (burning sensation when urinating, urinating more frequently, or inability to void), please call your primary care physician immediately.

### Blood Clots (Deep Vein Thrombosis or DVT)

Major orthopedic surgery increases the risk of blood clots forming in your legs. This is called deep vein thrombosis (DVT).

Signs include:

- Significant calf, thigh, or whole leg swelling
- Redness
- Calf pain (may increase with putting foot flat on floor)
- Warmth

Very rarely, a clot may break away and travel to the lung, creating a pulmonary embolism (PE), which can cause shortness of breath, chest pain, and can potentially be fatal. There are several treatments that may reduce your risk for DVT or PE:

- Early and frequent activity (walking and ankle pumps) may be the single most important part of blood clot prevention, as it increases your blood flow and prevents blood pooling in your veins.
- Compression stockings (TED stockings) may be ordered for you to wear.
- Blood thinning medication (pill or injection) will most likely be ordered. Most often this will be aspirin that you take daily. This has been shown to be effective in preventing blood clots for most patients. If you already take a blood thinner, you will most likely be put back on the same medication but possibly with a different dose for a period of time.

### **Constipation or lleus (Intestinal Blockage)**

Constipation is when you're not having bowel movements regularly, comfortably, or easily. It is very common after surgery and can be a significant source of discomfort.

lleus is when the normal pumping action of the intestines slows or completely stops. It is much less common than constipation, but more severe and needs to be identified and managed as quickly as possible to prevent a blockage.

Either of these conditions can be caused or worsened by anesthesia, stress, changes in diet or fluid intake, decreased physical activity, and pain medication (highly constipating). Symptoms of either can include abdominal pain, bloating, belching, nausea, vomiting, or inability to have a bowel movement.

To help prevent these conditions, we strongly recommend that you:

- Take a fiber laxative or stool softener immediately after returning home. Continue until you have stopped using pain medication for several days.
- Limit your use of narcotic pain medication (oxycodone, hydrocodone, percocet, tramadol, etc.) to what is necessary.
- Increase your activity and time walking as much as possible.
- Eat foods high in fiber such as beans, whole grains, bran, fresh fruits, and vegetables, or any food you know that works well for you.
- Limit intake of cheese, dairy, and processed foods which are naturally constipating.
- Eat small, frequent meals throughout the day rather than large meals.
- Drink plenty of water.
- Prune juice and apple cider (not juice) are natural laxatives.

If all else fails, we recommend taking MagCitrate, which is an over-the-counter option available at most pharmacies. Take it as directed on the package. Drink plenty of water while taking it to avoid dehydration.

#### Fractures

A fracture, or broken bone, occurs in less than 1% joint replacement surgeries. They are more common in patients with weak bones, existing bone loss, or in revision (repeat) surgery. Treatment of fractures noticed in surgery is performed by wrapping a cable or cables around the bone. After surgery, the patient will likely have weight-bearing restrictions until the bone is healed and the implant is considered stable. Most patients will have no further symptoms or limitations.

#### Infection: See Preparing for Surgery section

#### **Nerve Injury**

Nerve injuries occur in less than 1% of knee replacement surgeries. They are usually the result of nerves stretching during the procedure. After knee replacement, any numbress in the outside (lateral) part of the knee is usually temporary.

Much more common following any joint replacement surgery is patchy numbress around the incision, which usually gradually resolves, if incompletely, with time.

### Pneumonia

Decreased activity following surgery may increase the risk of developing pneumonia (a lung infection). Sitting upright, walking, and deep breathing can help reduce this risk. After surgery, you will also learn deep breathing techniques to keep your lungs clear. You will need to be out of bed most of the day and taking short walks in the house every hour or 2, and these activities will help your lungs stay healthy too.

#### Stiffness

One of the most common complications after knee replacement surgery is stiffness, which will cause limited range of motion. It is important to work with your physical therapist, and on your own, to regain range of motion and extending and flexing your knee. If you're not able to regain range of motion after your surgery, you may need a second surgery.

#### **Urinary Retention**

Patients—especially older men, but also women—sometimes have trouble urinating after surgery. The surgery itself, spinal anesthesia, and pain medications can all contribute to this problem.

You will need to urinate normally prior to going home. If you are a man, your doctor may order you a temporary dose of Flomax, which helps promote normal bladder function. Urinary retention, if left untreated, can cause serious problems, so, if you have any difficulty, call our office immediately.

#### Long-Term Wear

When patients have successful joint replacement surgery, they can expect many years of pain-free function. But it's important to recognize that some of our youngest and most fit subset of patients may place higher demands on the artificial joint components. Heavy, strenuous, or high-impact activities, such as jogging, tennis, skiing, basketball, or softball, are likely to cause premature wear to a knee replacement.

When less strenuous activities are pursued, knee implants can often last even longer than the expected lifespan of 15 – 20 years. However, after any surgery and even in the best of circumstances, problems can occur, such as wear of the plastic, degradation of the bone near the implant, components loosening, or inflammation due to component wear. If any of these things occur, revision surgery may be needed.

# **Surgery Day**

On the morning of your surgery, please arrive at the facility on time. Check in at the registration desk, just inside the entrance. As part of the registration process, an identification bracelet will be placed on your wrist. It is okay to bring some personal items to pass the time while you are in our recovery suite after surgery, but please leave them in the car or with your coach when you first arrive. Please do not bring valuables in with you before surgery.

After registration, we'll escort you to the pre-operative area. You will be asked your name, date of birth, and the surgery for which you are scheduled several times. Your name and date of birth will be compared to the information on your bracelet. This is for your safety and the safety of all our patients. Our team asks all patients this information before any testing or procedures.

On arrival to the pre-operative area, we will help you put on a hospital gown, check your vital signs (blood pressure, pulse, temperature, and oxygen level), and we will ask you a series of questions. The pre-operative team will also start an IV and prep your surgical site. They will ask questions about previous surgeries and/ or anesthesia and tell you what to expect in the operating room. You will be given medications (some pills with a tiny sip of water and some through the IV) including a preventative antibiotic to reduce the risk of post-operative infection.

Once you are ready for surgery, your coach or family member who is with you is welcome to join you. Before your surgery, you'll meet with the anesthesia team to discuss and finalize your anesthesia plan. During this time, feel free to ask any questions. You will also meet with your surgeon, who will answer any remaining questions that you have. For your safety, the surgeon will mark the surgical site with his initials just before you are taken to the operating room.

We may give you a pre-operative medication through the IV to help you relax as you are taken back to the operating room by stretcher. Your operating room team will make you comfortable, provide warm blankets, and connect you to equipment to monitor your heart, blood pressure, and oxygen levels during the surgery. A typical knee joint replacement surgery takes about  $1 \frac{1}{2} - 2$  hours.

Infection prevention measures continue the day of your surgery. You will be given antibiotics both before surgery and for a brief period after surgery. During surgery, your surgeon will use state-of-the-art body exhaust systems and strict sterile protocol. He or she will also topically administer antibiotics to your surgical wound before closure.

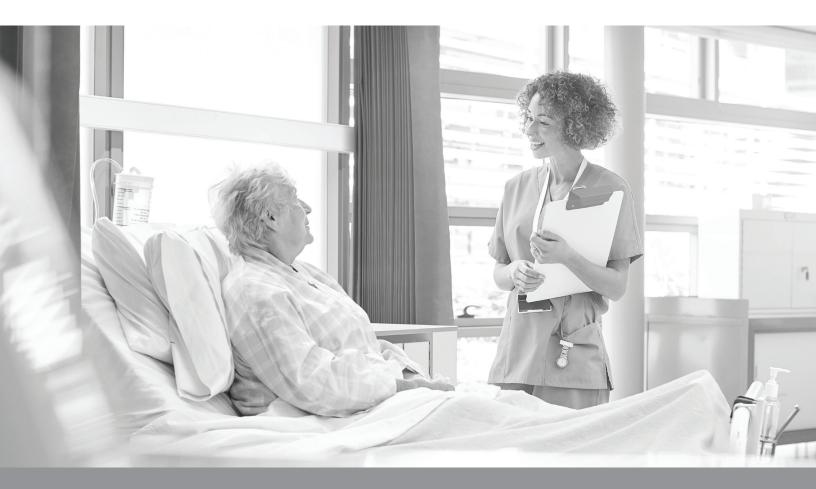
When you go to the operating room, we'll ask your coach or family member to take care of your personal belongings while you are in surgery. They may wait in the waiting room, and we'll let them know when your surgery begins. With your permission, they will be updated periodically throughout your surgery, and we'll let them know when it is completed. Your surgeon will discuss the surgery with them in a conference room. When appropriate, they will be brought to join you in the recovery suite.

After surgery, we will transport you to the post-anesthesia care unit (PACU) or recovery suite. The recovery nurses will coordinate your care, provide pain management, and assist you with your daily activities. They will frequently check your blood pressure, temperature, heart rate, and oxygen level as well as check the circulation in your feet. You will be wearing compression stockings (used to reduce your risk of developing a blood clot), and you will have cold packs around the surgical site to help reduce swelling. If you had a spinal anesthesia, you may not be able to move your legs or toes for several hours after surgery. This is normal and the function will return gradually as the anesthesia wears off.

Your length of stay will be determined by your medical recovery, your pain control, lack of side effects, ability to walk with minimal assistance/supervision, and your ability to void or urinate (spinal anesthesia also temporarily affects bladder function). Once these criteria are satisfied, you will be able to go home. Most patients spend between 4 - 6 hours in the recovery suite before going home, but you may stay overnight if your surgery was late in the day. If your surgery is being done in a hospital, you may go to a nursing unit or even stay overnight before going home.

If your surgery is at one of the surgery centers, and the highly unlikely event happens that you are medically not ready to go home, you will be transferred by medical transport to the local hospital for further treatment.

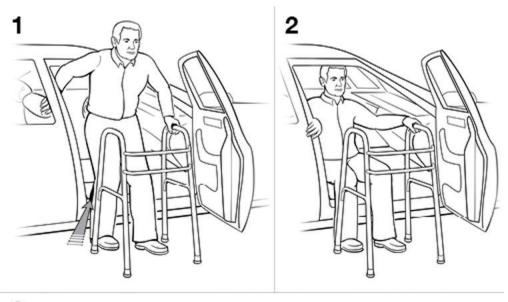
While in the recovery suite, you'll practice getting in and out of bed, walking, and going up and down stairs. Your nurse will give you written instructions that you'll review together. Additional instructions on medications to take, activities and exercises to do, and information about when you should call your surgeon will also be included.



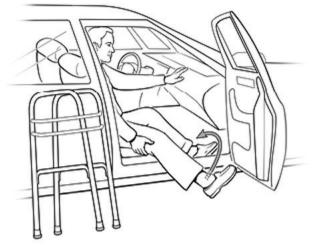
When you're ready, someone from our care team will assist you to your car. A midsize car or sedan is easier to get in and out of compared to a very low or very high vehicle. Suggestions for getting in and out of the car:

The front passenger seat should be pushed back all the way to give you extra leg room.

- 1. Back up to the front passenger seat. Never step into the car. With right hand, hold the door frame or headrest; with left hand reach for car seat or dashboard.
- 2. Sit on edge of car seat and slide yourself back onto the seat (if seat cover is fabric, placing a plastic bag on it may make moving easier).
- 3. Swing legs gently into car one at a time; use your hands to assist if needed. Reverse these steps to get out of the car.







# The First 24 Hours at Home

No matter how much you've prepared for your homecoming, it will be an adjustment. If you are a bit anxious, this is a totally normal feeling. Try to relax and focus on your recovery. Once you arrive home, you should plan to rest for the remainder of the day and evening.

Do your exercises as you can, and ice your surgical site frequently. Remember, much of your pain after joint replacement surgery is from swelling and inflammation, so "ice is your friend!" Use the ice on and off for 15 – 20 minutes at a time if it is really cold or almost continuously if a milder cold. Always remember, it is important to have a protective layer of fabric between the ice and your skin to prevent ice burn. Ice should never be painful or turn your skin white.

You should feel strong enough and safe to walk around in your home, but don't be surprised if you tire out quickly during the 24 hours after your surgery. While sitting or lying down, continue to do your leg exercises and ankle pumps to prevent blood clots from forming. You may have difficulty getting or staying comfortable enough to sleep through the night at first. This is also normal.

Your OrthoSC team is available to help you 24 hours a day, 7 days a week. You, your coach, or a family member can call and receive answers to general questions or reassurance with most concerns. Do not hesitate to call the office regardless of the issue.

Your care team is still thinking about you even though you've gone home. Expect a call from our team asking how you're doing. You may find it helpful to write down any questions or concerns to help you remember to ask them during the call.



At home, you may start taking new medications. Your specific medications will be customized for you based on your medical history. Below is a list of some common ones.

Medication	Why It Is Used
Keflex (Cephalexin)	Antibiotic used to prevent infection
Clindamycin	Antibiotic used if you are strongly allergic to penicillin
Tylenol (Acetaminophen)	Pain reliever used every few hours to "stay ahead" of the pain
CELEBREX (Celecoxib)	Used to reduce inflammation and swelling which cause pain after surgery
Aspirin	Used to prevent blood clots; you will either take this or a prescription blood thinner after surgery
Prilosec (Omeprazole)	Used to prevent acid reflux and/or heartburn
Zofran (Ondansetron)	Used to prevent or treat nausea (which pain medication can cause)
Flomax (Tamsulosin)	Used to prevent urinary retention
Ultram (Tramadol)	Pain medication used for mild to moderate pain (pain scale $4 - 6$ ); take with food
Oxycodone, Hydrocodone, Percocet, Norco, Dilaudid	Narcotic pain medications to be used only for severe pain (pain scale 7 – 10); take with food. DO NOT TAKE SAME TIME AS TRAMADOL.
Stool Softener or Laxative	Use product of your choice to prevent constipation; use until you no longer take any pain medication

# Ice Is Your Best Friend!

After surgery, much of your pain comes from inflammation and swelling. Ice is one of the best treatments for both, so use it as frequently as possible to help with post-operative pain. Ice comes in several forms, and any form can be effective. However, some ice options are much more convenient than others, some are more or less expensive than others, some provide a stronger or milder cold than others, and some are much better suited to use at night if you find it helpful to sleep.

### Ice Options Include:

- Cold Therapy Machines (Not covered by insurance)
  - ♦ Available with just cold or cold with compression.
  - More expensive than other ice options, but also much more convenient: fill it, plug it in, and the cold should last several hours.
  - ♦ More consistent cold temperature than other options.
  - ◊ Doesn't get you or your furniture wet from leaking or "sweating" as some ice options can.
  - Best option for use through the night since it is adjustable and won't leak. Make sure to set the unit on the milder cold option and have plenty of layers of fabric between the ice and your skin for safety.
  - ♦ Available in our office, so it is easy to pick up when you are already there.
- Ice from freezer in ice pack: Simple, least expensive option. If you ice as frequently as you should, most home freezers can't keep up the pace, so you will need to buy additional bags of ice. Chipped ice will be more comfortable on your surgical site than large ice cubes that can have hard edges.
- Bags of frozen peas or corn: Buy at least 4, so you can use 2 at a time and freeze the others.
- **Gel cold packs:** Available at many retail stores or online. Remember to buy 2 sets of packs so you can use 1 set while freezing the other.
- Homemade cold packs: There are lots of directions online for making ice packs. If you use any of them, make sure to use a ziplock bag, then place it in a second bag to keep it leak proof. Ingredients commonly used for homemade cold packs include:
  - ◊ 1 cup rubbing alcohol with 2 cups water
  - ◊ Corn syrup (i.e. Karo syrup)
  - ♦ Dishwashing detergent

**Check your skin often:** Monitor your skin closely and make sure to always keep a cloth such as a thin towel between your skin and the ice. Mild ice packs can be left on for longer, but stronger cold should be used 15 – 20 minutes at a time with about a 20-minute break to let your skin and circulation recover.

# Your Daily Routine at Home

During the first several weeks, your goal is to keep moving. Remember "movement is medicine" and work on making progress week-by-week. We encourage you to be up, showered, dressed comfortably, have meals where you usually would, go to the bathroom, and be out of bed throughout the day. At first, your progress may seem slow and you may get frustrated, but stay positive, and soon you'll see the results.

Every day, starting the morning after surgery, you should:

- Take a shower once you feel strong enough.
- Dress in loose, comfortable clothes.
- Eat your meals where you normally do.
- Take naps, but don't stay in bed all day.
- Do not sit for longer than 30 60 minutes at a time. Firm chairs with armrests are usually most comfortable and easiest to get in and out of.
- Elevate your leg to help reduce swelling; elevate the entire leg with your feet higher than your heart to let gravity help your circulation. When doing so, have any pillows or cushions under your ankle.
- Never put a pillow only behind your knee (with your knee in a bent position); the pillow needs to be under your calf and ankle with your knee completely straight.
- Take short walks every hour during the day. Walks will help you regain your endurance, keep your joints moving, and help your circulation. Short walks (to the kitchen, bathroom, mailbox, etc.) every hour are better than just one long walk during the day.
- Climb stairs using a railing as your endurance allows. You may want to climb foot to foot, leading with the "good" leg going up the stairs and leading with "bad" leg going down the stairs.
- Continue to use ice around surgical site as described earlier.
- Wear your compression stockings 23 hours a day until your follow-up appointment with your surgeon. Take them off for an hour every day to let your skin breath, especially around your ankles and heels. Best practice is to take them off for 1 hour first thing in the morning when you've been in bed all night and your legs and ankles are least swollen.
- Do ankle pump exercises every hour during the day. Find something such as commercials on TV or finishing each chapter in a book to remind you to keep up with them.
- Avoid lifting anything heavier than 5 pounds.
- Start physical therapy the first business day after your surgery. Remember, the physical therapist is your guide. The real progress isn't from the work you do during physical therapy sessions, but rather the work you do at home.
- Take the medicine your surgeon ordered to reduce the risk of blood clots as scheduled and on time. It is most likely aspirin, Eliquis, Lovenox, or another blood thinner you were taking before surgery.

### **Pain Management**

You should expect to have some level of pain after surgery. The pain control regimen we use has been proven to be effective in medical research and verified in our own practice to be least likely to produce side effects. Your surgeon has created a pain management program that layers multiple types of medications that work together to create adequate pain control with the fewest side effects possible. Remember: We want you to be comfortable, but we also need you to be awake and alert enough to be safe at home and to be able to participate in an active recovery.

First, use ice/cold therapy frequently. Be careful to avoid skin burns, which can be prevented by on-and-off use of ice packs and looking at your skin frequently (may be pink but not red or pale white). Using cold will reduce swelling and pain. After knee surgery, pain is most often down the thigh and around the knee; moving can be helpful, so keep moving the joint frequently, even in small ranges and take short walks.

Second, before your surgery you were asked to fill several prescriptions that can be used together to best achieve pain control. Although each patient's routine will be different due to medical history, allergies, or personal preferences, we recommend taking the medications in a layered fashion. Your specific instructions will be provided before your discharge home. Most patients benefit most from:

- Taking Tylenol ES (extra strength) every few hours throughout the day.
- A daily dose of an anti-inflammatory medication (CELEBREX).
- If needed for breakthrough pain: Start with Tramadol (milder narcotic).
- If still needed after the Tramadol: oxycodone (or other stronger, opioid narcotic).
- Remember: If you're sent home taking aspirin, it is not for pain. It's for blood clot prevention.

### **Incision Care**

Your dressing is waterproof so you can shower, as long as there is no active drainage from the incision. Getting limited water on the dressing is fine, but avoid soaking it; lightly wrapping a plastic bag or plastic food wrap over the dressing will help. The dressing will stay on until your first follow-up visit in the office when the care team will remove it. It is normal for your surgical area to appear bruised, and for some drainage to accumulate underneath the dressing. In fact, the dressing is designed to absorb this drainage, and pull it away from your skin. However, if more than 50% of your dressing is soaked from drainage, please call the office so we can determine if the dressing should be replaced.

After the follow-up visit, your incision is usually left uncovered. It is important to continue to protect it while healing continues. Keep it clean, dry, and inspect it daily for any worsening redness, drainage, or odor. If you notice any of these, notify your surgeon's office via phone or the Patient Portal (with pictures, if applicable).

### Diet

Healthy eating helps you heal:

- Eat foods rich in iron such as lean red meat (especially grass-fed); dark green, leafy vegetables; raisins; and prunes to prevent anemia.
- Eat foods high in vitamin C to help your body absorb the iron such as oranges, cantaloupe, and tomatoes.
- Eat more fiber to help avoid constipation such as beans, whole grains, bran, fresh fruits, and vegetables.

- Get enough calcium for bone health such as milk; yogurt; dark, leafy greens; and fortified cereal.
- Drink plenty of fluids and stay well-hydrated to help prevent constipation such as water, non-caffeinated drinks (caffeine both dehydrates and reduces iron absorption), prune juice, and apple cider.
- Limit intake of cheese, dairy, and processed foods which are naturally constipating.
- Eat small, frequent meals throughout the day rather than large meals.

### **Keeping Your Lungs Clear: Breathing Exercises**

Until you're back to a normal activity level, you'll probably be taking smaller, more shallow breaths than usual. Taking several deep breaths every hour while you are awake will increase oxygen flow to the lungs to prevent pneumonia. This technique can also help you relax and ease your discomfort as you move and begin using your new knee.

Do the following simple activity about 6 – 10 times every hour:

- Inhale deeply through your nose while counting to 5.
- Exhale slowly through pursed lips while counting to 5.

### **Activity Recommendations**

Patients often ask, "How much should I be walking?" and "What exactly should I be doing?" There are no right or wrong answers to these questions. We recommend:

- Frequent, low-intensity walking at first. Don't worry about walking fast or far, as lots of short, gentle walks are best.
- Stay on firm surfaces (decks, patios, sidewalks, etc.); no grass, golf course, or beach until after your first post-operative visit.
- Gradually increase your distance as able; you can't really "overdo" it with walking, meaning you are unlikely to cause any structural problem with your implant. But you will want to weigh the benefits of increasing activity too soon with the increase in inflammation and discomfort you will likely experience if you get too aggressive.
- Until your first post-operative visit, avoid strenuous activity, sports, and driving. Just walk. Listen to your body and let it tell you if you are doing too much.
- Plan to use a walker at first. Progress to a cane when your balance, strength, and confidence are good enough. How quickly you begin walking on your own without the cane is up to you, and it may be a gradual process. You may find yourself walking in your home without a walker/cane yet still want to use one for a while when out of the house where uneven surfaces, crowded spaces, and longer distances are more challenging.

Your first post-operative office visit, about 2 weeks after surgery, was scheduled before your surgery. At any time before that, if you have any problems, questions, or concerns, please contact us. Almost all issues can be handled initially over the phone and then with close follow-up in the office, usually the same or next day.

It is usually more effective and convenient for you if you contact us rather than another healthcare provider that is unfamiliar with the details of your surgery such as in an emergency room or urgent care setting. However, if you feel you may have a life-threatening condition, please go directly to the closest emergency room or call 911.

# **Two Weeks After Surgery**

About 2 weeks after surgery, you'll come in for your first post-operative office visit. At this visit, we will:

- Discuss how you are doing with return to activity and talk about next steps.
- Talk about weaning you off any pain medication you may be taking.
- Answer questions. Write questions down before this visit so you'll remember to ask them. The more specific your questions, the more specific and helpful the answers can be.
- Remove your dressing and inspect your incision.
- Remove staples or sutures if you have them.
- Discuss your compression stockings. You should be able to stop wearing them, but only if your swelling is decreasing and your activity level is adequate.

At this point, it is perfectly normal to still have:

- Bruising
- Clicking sound with movement
- Difficulty sleeping
- Drainage (decreasing or stopped)
- Numbness on outside of knee
- Pain/discomfort
- Stiffness
- Swelling

For the next 4 weeks, you should also:

- Wean off pain medicine; you may want to continue a dose before physical therapy.
- Continue working on building strength and increasing range of motion.
- Continue going to physical therapy for 4 more weeks.
- Continue to take aspirin or other blood clot preventing medicine.
- Continue to gradually increase your activity as tolerated:
  - Gradually work toward light aerobic activity such as using an exercise bike and taking longer walks. If you golf, you can start playing again over the next month.
  - ♦ You may kneel (if comfortable) without damaging the knee once the incision has healed completely.

# **Six Weeks After Surgery**

At about six weeks after surgery, you'll return for your second post-operative office visit. At this visit:

- You should start noticing an increase in energy, a desire to do more, and a noticeable improvement in your new joint. But keep in mind that every patient is different, and you will improve at your own pace.
- We will discuss new activities you've been able to start enjoying.
- We will answer any questions you have. Bring any questions about specific activities you hope to resume.

At this point, it is perfectly normal to still have:

- Stiffness, especially when sitting for a period of time.
- Mild, occasional pain or soreness, especially after activity. Expect it to improve gradually week-by-week and month-by-month.
- Difficulty sleeping.
- Symptoms from before surgery that are continuing to improve (you should soon be better than before surgery).
- You may still need pain medication for therapy (which may be finished or need to continue for a few more weeks).

At this appointment, we will likely advise you to:

- Continue working on endurance and strength as tolerated.
- Continue to gradually increase your activity as tolerated. Bring your list of activity-specific questions so we can help you find activities and exercises that are right for you.
- Take over-the-counter pain relievers, as necessary.
- Take NSAIDs such as Motrin, Aleve, or Advil. They are particularly helpful if you still have swelling.
- Drive if you would like to do so as long as you are completely off pain medication and able to control a vehicle safely.
- Make an appointment with your surgeon for next follow-up visit(s).

# Your Knee Replacement Surgery

Total knee replacement surgery is needed when a knee has arthritis, and the cartilage covering the ends of the bones within the knee joint is badly worn. A knee replacement resurfaces these worn and arthritic surfaces of the joint. The damaged cartilage along with a very thin layer of bone is removed with precise guides and instruments by an experienced surgeon and replaced with an implant made of metal and plastic. The implants are bonded to the bone with cement, creating an artificial surface that should cause no pain when the knee is in motion.



Partial knee replacement (also called uni, unicompartmental, or bicompartmental replacement) is done when only part of the knee joint is damaged by arthritis and needs to be replaced.

The knee has three parts: inside, outside, and a front part under the kneecap. Sometimes the inside part becomes arthritic and wears out first. The decision to perform a partial knee replacement is made only when the opposite side and the kneecap have healthy, normal cartilage.



Revision total knee replacement is a second surgery that happens after a knee replacement. It is more complex and often requires a special type of implant used for those patients who have had a knee replacement that has failed. The bone is not as strong when an implant is removed, and the ligaments and capsule surrounding the knee may be damaged.

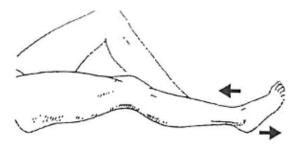
A revision implant helps address these problems because it is specifically designed to provide more support. In rare cases, the bone may be badly damaged, and a bone graft may be needed to reconstruct around the joint. In most cases, this will have been discussed with you during your initial office visit, but your surgeon or his or her team will be glad to answer any questions about bone grafting and review the advantages and disadvantages with you.

### **Pre- and Post-Operative Exercises**

Start the following exercises right after your surgery. If you can begin practicing them before your surgery, you can develop "muscle memory" making them familiar and a bit easier after your surgery.

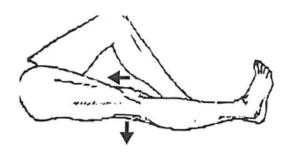
If any exercises increase your discomfort or symptoms, stop. Do not repeat that exercise.

Increase each exercise to 10 repetitions 2 – 3 times a day. Do not hold your breath. Counting out loud may be helpful in remembering to breathe.



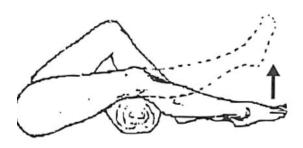
### **ANKLE PUMPS**

Move your ankles up and down. Move your ankle in circles like a figure 8.



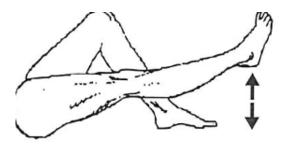
### **QUAD SETS**

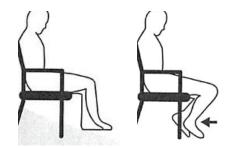
Lie on your back, press your knee down, tightening your muscles on the front of your thigh. Hold for a count of 6.



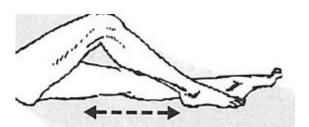
#### **TERMINAL KNEE EXTENSION**

Lie on your back with a towel roll under your knee to be exercised. Straighten your knee all the way, keeping your thigh resting on the towel roll. Hold for 5 seconds. Slowly lower your foot to surface.









### **STRAIGHT LEG RAISES**

Lie on your back, non-operative knee bent and foot flat. Lift operative leg up 12 inches. Keep your knee straight and toes pointed up. Relax, then lower your leg.

### SEATED KNEE FLEXION

Sitting on straight-backed chair, cross your legs with operative leg on bottom. Slide your feet underneath chair. Try to gently bend and stretch your knee as far as possible.

### HAMSTRING SET

Lie on your back on a firm surface. Push your heel down into the surface on which you are lying. Hold for 5 seconds and relax. You should feel tightening behind your thigh and knee.

### **HEEL SLIDES**

Lying on your back, slide your heel of the operative knee toward buttocks, bending the knee.

### Carolina Bone & Joint Surgery Center (CB&J)

101 Surgeons Drive Myrtle Beach, SC 29579 Main Phone: (843) 236-6633



From the North

- Take SC 31 from Robert Edge Parkway
- Follow SC 31 to International Drive
- Take the International Drive exit
- Turn left on River Oaks Drive
- Turn right on Carolina Forest Boulevard
- CB&J will be 4.2 miles ahead on the right

From the South

- Take US 17 Bypass north
- Use right lane to merge onto ramp for 501 north toward Conway
- Follow 501 for 10.4 miles
- Turn right on Carolina Forest Boulevard
- CB&J will be 3.3 miles ahead on the left

From Conway

- Take 501 south to Carolina Forest Boulevard
- Turn left on Carolina Forest Boulevard
- CB&J will be 3.3 miles ahead on the left

### **Carolina Coast Surgery Center (CCSC)**

3545 US 17 Bypass Murrells Inlet, SC 29576 Main Phone: (843) 299-1717



From the North

- Take US 17 Business or Bypass south to the point they merge
- When they merge look for the surgery center on the left—large OrthoSC sign is just past the entrance
- You will turn left either just before the center or just after (at the Southern Urgent Care center) onto an access road that leads to the parking lot
- If you pass us, go to the next light (where 707 intersects US 17) and make a U-turn

From the South

- Take US 17 north to the stop light at the intersection with 707
- From the intersection, you should see the large OrthoSC sign to your right in front of the surgery center
- Just past the intersection, turn right onto Frontage Road at the Southern Urgent Care center, then an immediate left onto the access road that runs alongside of US 17 and takes you to the parking lot

From Conway (via Route 544)

• Take 544 to US 17 Bypass and follow the directions above "from the north"

From Conway (via Route 707)

- Take Route 707 until it ends at US 17
- Turn left onto US 17 north
- From the intersection, you should see the large OrthoSC sign to your right in front of the surgery center
- Just past the intersection, turn right onto Frontage Road at the Southern Urgent Care center, then an immediate left onto the access road that runs alongside of US 17 and takes you to the parking lot

### **Conway Medical Center**

300 Singleton Ridge Road Conway, SC 29526 Main Phone: (843) 347-7111



From the North

- Take SC 31 from Robert Edge Parkway
- Take the 501 North exit (toward Conway)
- Turn left onto Singleton Ridge Road
- Go through the roundabout, staying on Singleton Ridge Road
- After the roundabout, turn left into the hospital campus

- Take US 17 north to 501 North (toward Conway)
- Turn left onto Singleton Ridge Road
- Go through the roundabout, staying on Singleton Ridge Road
- After the roundabout, turn left into the hospital campus

### **Grand Strand Regional Medical Center**

809 82nd Parkway Myrtle Beach, SC 29572 Main Phone: (843) 692-1000



From the North

- Take US 17 South to 82nd Parkway
- Turn left on 82nd Parkway
- Continue 0.46 miles and hospital is on the right

- Take US 17 North to 82nd Parkway
- Turn right on 82nd Parkway
- Continue 0.46 miles and hospital is on the right

### **Tidelands Waccamaw Community Hospital**

4070 US Highway 17 Bypass S Murrells Inlet, SC 29576 Main Phone: (843) 652-1000



From the North

- Take US 17 South and hospital will be on your right
- 7.25 miles south of intersection with 544
- 0.65 miles south of intersection with SC 707

- Take US 17 North and hospital will be on your left
- Go 0.04 miles past the hospital and make a U-turn
- You're now on US 17 South and hospital will be on the right

### **McLeod Seacoast Hospital**

4000 US Hwy 9 E Little River, SC 29566 Main Phone: (843) 390-8100



From the North

- Take US 17 South
- Keep right at the fork to stay on US 17 South (do not go right onto Highway 90 East)
- Continue US 17 for 3.7 miles
- Merge onto Highway 9/SC 9 toward Myrtle Beach/Georgetown
- Continue 0.44 miles and hospital will be on the left

- Take SC 31 North toward North Myrtle Beach
- Take exit for Highway 9/SC 9 toward North Myrtle Beach/US 17 North
- Continue US 17 North for 1.58 miles and hospital is on the right

### **Notes and Questions**