# Total Knee Replacement

## *Informational Guide to Surgery and Recovery*

Excelsior Orthopaedics™

www.excelsiorortho.com • 716-250-9999 • 3925 Sheridan Drive, Amherst, NY 14226

*Dec 2023*

# *Welcome!*

*Thank you for choosing Excelsior Orthopaedics and Buffalo Surgery Center as your trusted provider of orthopaedic care. At Excelsior and Buffalo Surgery Center, our team of Board Certified Orthopaedic surgeons are nationally recognized leaders in the treatment of a full range of orthopaedic conditions. Our surgeons use state-ofthe-art technology and the latest surgical techniques while implementing a treatment plan tailored specifically for you.*

*You are here because you have elected to undergo joint replacement surgery. This surgery is intended to relieve pain and restore function. Your dedicated care team is made up of the finest health care professionals who will work with you to help you return to an active lifestyle as quickly as possible.*

*By attending this course, you will receive comprehensive information and instructions that will provide guidance on expectations before, during, and after surgery. This is the first step in helping you on your way to a successful surgical outcome and recovery.*

# Excelsior Orthopaedics & Buffalo Surgery Center Contact List

| General Contact Numbers—Excelsior Orthopaedics | |
|---|---|
| **Department:** | **Phone Number:** |
| Excelsior Orthopaedics Main Office | (716) 250-9999 |
| Physical Therapy | (716) 250-6500 |
| Billing | (716) 250-6401 |
| Disability Forms | (716) 204-2551 |
| Medical Records | (716) 250-6506 |
| Total Joint Director: Sue Dow | (716) 250-6490 |
| Total Joint Coordinator: Megan Wood | (716) 906-5583 |
| Total Joint Specialist: Nikki Bull | (716) 906-5998 |

| General Contact Numbers—Buffalo Surgery Center | |
|---|---|
| **Department:** | **Phone Number:** |
| Buffalo Surgery Center Main Number | (716) 250-6520 |
| Surgical Recovery Suite | (716) 276-9724 (4D)<br>(716) 568-9550 (5D) |

| Physicians | | |
|---|---|---|
| **Physician** | **Surgery Scheduler** | **Phone Number:** |
| Adam Burzynski, MD | Maria | (716) 250-6407 |
| Peter Gambacorta, MD | Debbie | (716) 204-0765 |
| Patrick Hlubik, MD | Julie | (716) 204-0767 |
| Matthew Mann, MD | Maria | (716) 250-6407 |
| David Miller, MD | Angie | (716) 250-6416 |
| Michael Ostempowski, MD | Emily | (716) 250-6539 |
| David Pula, MD | Stephanie | (716) 250-6510 |
| Andrew Stoeckl, MD | Jennifer | (716) 250-6531 |
| Daniel Vargo, MD | Scheduler | (716) 204-0767 |
| Nicholas Violante, DO | Emily | (716) 250-6539 |
| Matthew Zinno, DO | Debbie | (716) 204-0765 |

## *Before Surgery*


**Why Surgery?** ..... 5
What is Arthritis? ..... 5
Understanding Your Surgery ..... 5
**Preparing for Surgery** ..... 7
- Pre-Admission Testing ..... 7
- Medical Clearance ..... 7
- Preparing Your Skin ..... 7
- Smoking ..... 7
- Medication Usage ..... 8
- Planning for Care after Surgery ..... 8
- Household Preparation/Support ..... 9
- Meal Planning ..... 9
- Exercise ..... 9
- Instructions for the Day before Surgery ..... 11


## *Day of Surgery*


**Day of Surgery & Postoperative Care** ..... 13
- General Reminders for the Day of Surgery ..... 13
- Your Medical Team ..... 14
- Location & Map ..... 15
- Pre-Operative and Operative Phase ..... 16
- Recovery Phase—Post Anesthesia Care Unit (PACU) Phase II Recovery ..... 17
- Pain Scale/Pain Medications ..... 18
- Post-Operative Wound Care ..... 19
- Postoperative Complications & Concerns ..... 21

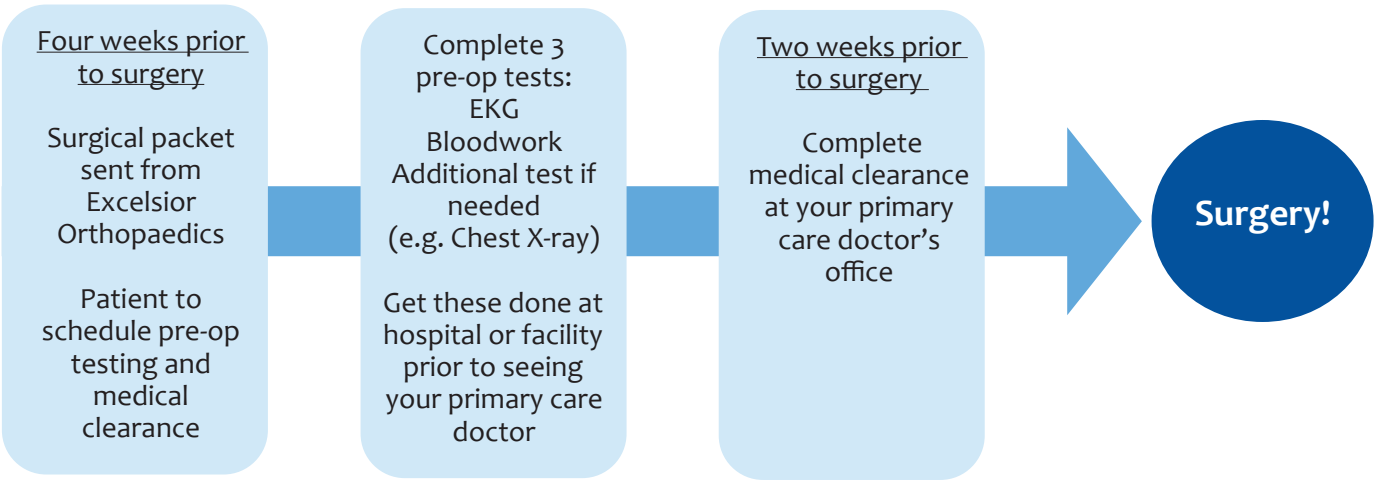

## *After Surgery*


**Other Postoperative Considerations** ..... 23
- Returning to Work ..... 23
- Return to Driving ..... 23
- Office Visit Follow-up Schedule ..... 23
- Dental Protocol ..... 23
- Travel ..... 23

**Rehabilitation** ..... 25
- Rehabilitation After Total Joint Replacement ..... 25
- Phase II Thearpy/Outpatient Physical Therapy Exercise Program ..... 25
- Follow-up Care in Outpatient Therapy Clinic ..... 26
- Assistive Device Use ..... 26
- Total Knee Replacement Precaution & Activity Guidelines ..... 27
- Daily Functionality ..... 28

**Durable Medical Equipment and Assistive Devices** ..... 35
**Patient Checklists** ..... 43

# Pre-Operative Total Joint Timeline & Checklist




## Appointment Checklist

| Before Surgery | | | | |
|---|---|---|---|---|
| Appointment | Day | Date | Time | Location |
| **Pre-Op Exam with your surgeon** | | | | |
| **Pre-Admission Testing**<br>EKG, Bloodwork, chest x-ray | | | | |
| **Medical Clearance** | | | | |
| **Total Joint Surgery Education Class** | | | | |
| **After Surgery** | | | | |
| **Surgery** | | | | Buffalo Surgery Center |
| **Post-Op exam with your surgeon** | | | | |
| **Outpatient Physical Therapy** | | | | |

# Why Surgery?

## In This Section...

- What is Arthritis?
- Understanding Your Surgery

# WHY SURGERY?

You have been living with a joint disorder called Arthritis. Arthritis can cause pain, swelling, stiffness, and deformity, which may restrict you from performing your regular activities. The most common forms of Arthritis are Osteoarthritis and Rheumatoid Arthritis.

## What is Arthritis?

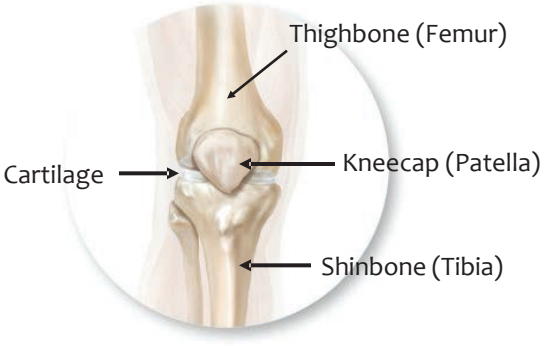
**Osteoarthritis:** A degenerative condition that deteriorates the natural "cushion" in your joints, leading to bone on bone contact, soreness, and swelling.

**Rheumatoid Arthritis:** An autoimmune disease that attacks the lining of joints, causing swelling, throbbing pain, and deformity.

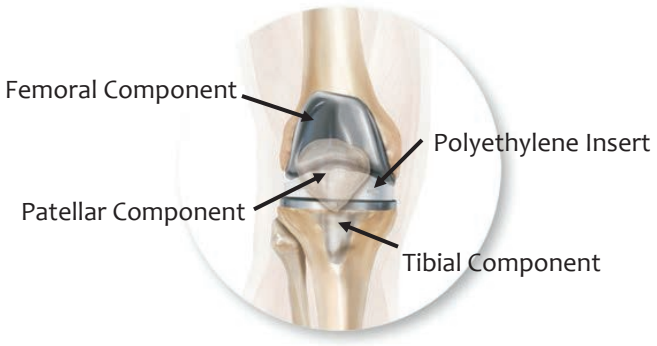
## Understanding Your Surgery

The knee joint is made up of bones and an elastic tissue called cartilage. Together, the bones of the knee form a hinge joint, which include the lower end of the thighbone (femur), the upper end of the shinbone (tibia), and the kneecap (patella). Cartilage surrounds the ends of the femur and tibia, forming a layer of protection or "cushion." Arthritis deteriorates the cartilage causing bone on bone contact, which results in pain, swelling, and stiffness. By undergoing elective surgery, your surgeon will remove and replace the diseased joint surfaces with artificial implants.

**Before Surgery**




**After Surgery**




After replacing damaged parts of the joint with ones that are artificial, patients often experience pain relief and increased range of motion.

# NOTES

# Preparing for Surgery

## In This Section...

- Pre-Admission Testing
- Medical Clearance
- Preparing Your Skin
- Smoking
- Medication Usage
- Planning for Care After Surgery
- What to Bring
- Instructions for the Day Before Surgery

# PREPARING FOR SURGERY

## Pre-Admission Testing

You will be required to complete pre-admission testing, including but not limited to lab work, EKG and Chest X-Ray. Your surgery scheduler will send this information to you in your surgical packet. **ALL pre-admission testing must be completed before you see your primary doctor for medical clearance and within 30 days of your surgical date.**

## Medical Clearance

Prior to joint replacement surgery, you are required to visit your primary care doctor for an evaluation of your current health status. You may be ordered additional testing or need medical clearance from a sub-specialist (i.e. Cardiologist, Neurologist, Pulmonologist, etc.), if necessary.

Please schedule your medical clearance approximately 2 weeks before your surgical date and have your pre-admission testing completed before you see your primary care doctor.

## Preparing Your Skin

It is important to prepare your skin for surgery to help decrease the risk of infection. Your doctor will recommend use of an antimicrobial skin cleanser (Hibicens®) for daily use 3 days prior to surgery. Shower the morning of surgery and wash with this cleanser.

## Smoking

We encourage you to speak with your physician prior to your surgery regarding alternatives to smoking and tobacco products. The longer you are smoke free, the healthier your lungs will be. You will also heal better.

**All of our properties are smoke-free environments.**

## Medication Usage

Your doctor will instruct you to discontinue all anti-inflammatories (e.g. Ibuprofen, Mobic, and Naproxen) 7 days prior to surgery.

Any blood thinning medications (i.e. Coumadin, Aspirin, Plavix, Xarelto, Eliquis) should be discontinued prior to your surgery at the discretion of your primary medical doctor/specialist.

Blood pressure or heart medications are usually taken the morning of surgery with the smallest sip of water that you can swallow them with. Please review this with your primary medical doctor/specialist at your medical clearance appointment.

For type I diabetic patients, insulin is taken at half your normal morning dose the day of surgery. Please review this with your primary medical doctor/specialist at your medical clearance appointment.

For type II diabetic patients, typically, you are able to forgo your medications the morning of surgery. Please review this with your primary medical doctor/specialist at your medical clearance appointment. Please bring your glucometer and testing supplies with you to the recovery suite.

When you visit your primary care doctor or specialist, you may receive further instructions on your medication usage.

For all other medication questions that may arise, please seek guidance from your primary care doctor or specialist.

## Planning for Care After Surgery

Knowing how to prepare yourself and your home for surgery is essential. It is not only important to follow your doctor's pre-surgical instructions, but also take the time to think about what you may require for your return home. Please see additional information below.

**Durable Medical Equipment/Assistive Devices**

You will be provided with a walker and cane. You may want to obtain "durable medical equipment" (i.e. assistive devices) prior to surgery. Assistive devices may include, but not be limited to a raised toilet seat, and bedside commode.

Equipment required following surgery will depend on your medical needs. The Buffalo Surgery Center (BSC) staff and the Physical Therapist (with Physician consult) will determine what durable medical equipment devices will be needed when discharged from the Surgical Recovery Suite and will assist with obtaining the assistive devices, if not already acquired.

**Household Preparation**

- Stock up on easily prepared meal items and store in an easy to reach area
- Remove rugs, cords, and household clutter from walkways
- Have a telephone available that is easy to reach
- Consider installing handrails to stairways or safety bars in the shower
- Consider purchasing non-skid-tub/shower mats, a shower chair and a raised toilet seat
- Arrange furniture so that you can easily move around your house with crutches or walker
- Use a firm seat cushion to raise the seat of a low chair and select a chair with a back/arms
- Accommodate for your pets and, upon your return home, and make sure they are out of the way

**Meal Planning/Nutrition**

Prepare/purchase small portion meals for times you may be alone. Stock up on items that can be frozen for later use, such as bread, vegetables and fruit. To achieve good nutrition we recommend a balanced diet of a variety of foods each day from the recom-mended USDA recommended food groups http://choosemyplate.gov/food-groups.

Add foods rich in iron such as lean meat, poultry, and fish. Include foods rich in vitamin C such as strawberries, orange juice, cantaloupe, green peppers, tomatoes, potatoes, and broccoli with each meal as these foods help the body absorb nutrients such as iron.

**Exercise**

A faster recovery is supported by toned muscles. You may request to have a physical therapy visit prior to surgery for an exercise program prior to surgery. Formal physical therapy will begin postoperatively at the Surgical Recovery Suite, and then on an outpatient basis. New exercises will be added as you progress.

**Buffalo Surgery Center Pre-Operative Education Class**

The Buffalo Surgery Center Pre-operative Education Class is dedicated to the comprehensive education of total joint replacement patients that have their surgery done in an ambulatory surgery setting. The class combines extensive pre-operative education and what to expect throughout the surgical and rehabilitation process for the patient and their family in an environment created to enhance faster healing and recovery. Patients will receive an electronic link to watch class with a caregiver prior to surgery.

## Instructions for the Day Before Surgery

Good nutrition is important, especially when preparing for surgery. You may have a well-balanced meal the night before. Please drink plenty of water day before surgery

Patients will stop eating solid foods and dairy products at midnight before the scheduled procedure with anesthesia. Clear liquids are encouraged until 2 hours before the arrival time at the Surgery Center.

Clear, see-through liquids include:

- Water
- Clear fruit juices, such as apply juice and white cranberry juice (NOT yogurt or pulp-containing "smoothies")
- Plain tea or black coffee (NO milk or creamer)
- Clear, electrolyte-replenishing drinks such as Pedialyte, Gatorade or Powerade (Avoid red and purple flavors)
- Ensure Clear or Boost Breeze (NOT the milkshake varieties)

*Attention to these details is important in providing you a safe and successful surgery

# NOTES

# NOTES

# Day of Surgery and Postoperative Care



## In This Section...

- General Reminders for the Day of Surgery
- Your Medical Team
- Location & Map
- Pre-Operative and Operative Phase
- Recovery Phase—Post Anesthesia Care Unit (PACU)
- Postoperative Complications & Concerns

# Day of Surgery & Postoperative Care

## General Reminders for the Day of Surgery

**DO**

- Bring your insurance card and driver's license
- Bring a form of payment to cover your copay or any financial responsibility
- Bring a pair of non-skid shoes that are not tight
- Shower prior to surgery using Hibiclens® pre-surgical cleanser and wear clean, comfortable clothing to the surgery center
- Brush teeth
- **Bring medication instructions and all medications to the surgery center in the original container(s)**
- Bring necessary medical devices to the Buffalo Surgery Center (i.e. Assistive equipment, CPAP/BiPAP, hearing aids, glasses, glucometer and testing supplies, dentures, or other small personal items )
- Arrive on time (you will be called one to two days prior to confirm surgical time)
- Take any morning medications as directed.

**DON'T**

- Eat or drink unless instructed by your doctor
- Bring valuables (jewelry, keys, large sums of money)
- Wear restrictive clothing
- Apply make-up, skin, or hair products
- Wear contact lenses
- Take medications unless otherwise instructed by your doctor

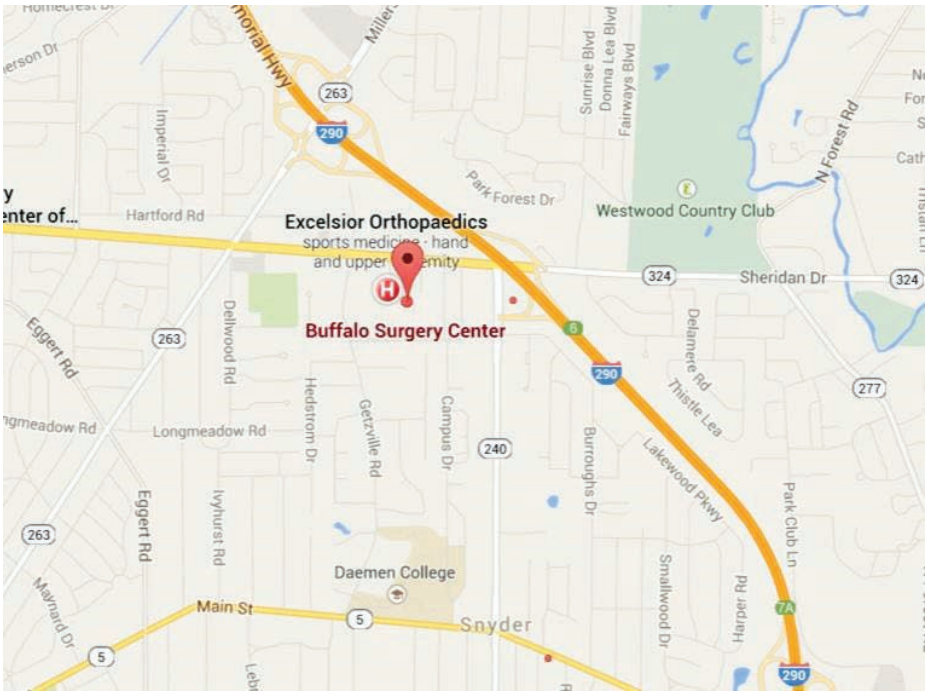
## Your Medical Team

- **Surgeon** - The physician who performs your surgery and directs your post-operative care.
- **Anesthesia Providers** - Physicians and specially trained nurses that administer your anesthesia, monitor your condition throughout the procedure, and assess and treat your pain afterward.
- **Operating Room Team** - This team consists of registered nurses, physicians' assis-tants, surgical technicians, and radiologic technologists who will care for you during your procedure.
- **Pre-Operative and Post Anesthesia Care Unit Team** - This team consists of specially trained nurses who will plan, coordinate, and provide care in the immediate pre and post-surgical areas.
- **Physical Therapist -** A highly trained, certified professional who will oversee and coordinate your rehabilitation program.

## Location and Map for Buffalo Surgery Center

Buffalo Surgery Center
3921 Sheridan Drive
Amherst, NY 14226
General Phone: (716) 250-6520

The entrance to the Buffalo Surgery Center is located to the right of the main entrance to Excelsior Orthopaedics. (Look for the big blue buffalo!) On arrival to the surgery center, please check with the receptionist at the front desk. You will complete registration process and be asked for your identification (driver's license) and insurance card. You will be asked for a co-payment or any financial responsibility if required by your insurance.

## Preoperative and Operative Phase

**Pre-operative area**

After registration, you will be admitted to the Pre-Op area where you will be prepared for surgery. An RN will review your health history and confirm that you have complied with all pre-operative instructions and requirements. Your surgical procedure will be reviewed and you will sign your surgical consent. You will change into a gown and an intravenous line will be placed. Anesthesia staff will interview you and review the anesthetic plan. You will sign your anesthesia consent. You will be given regional anesthesia (regional nerve block) by the anesthesia provider. Your surgical site will be marked by your surgeon and IV antibiotics will be given prior to entering the operating room.

A family waiting area is available for caregivers while you are being prepared for and in surgery.

**Operating Room**

The operating room nurse will introduce him/herself to you prior to entering the operating room. You will be asked to confirm your name, birth date, surgeon, and procedure. Antibiotics will be administered through your IV as well as sedation before you are taken into the operating room by your anesthesia provider and operating room nurse.

**Understanding Anesthesia:** Anesthesia is the administration of medications to control pain and consciousness while undergoing surgery. You may receive both a regional nerve block as well as general anesthesia. The type of anesthesia you will receive is dependent on your medical condition.

> **General Anesthesia:** General anesthesia is a medication-induced unconsciousness. You will be completely unaware of your surroundings and will not respond to stimulation. A breathing device will be placed to support your respiration while in surgery. This will be removed after surgery is finished before going to recovery Post Anesthesia Care Unit (PACU).
>
> **Nerve Block:** A nerve block uses both anesthesia and pain medications to block the feeling in a certain part of the body, such as in your operative leg. This provides a high level of anesthesia to a specific portion of the body, while not affecting other areas. It also assists in decreasing the amount of pain you may feel after surgery. This is usually done in a pre-operative area.

## Recovery Phase—Post Anesthesia Care Unit (PACU) and Phase II Recovery

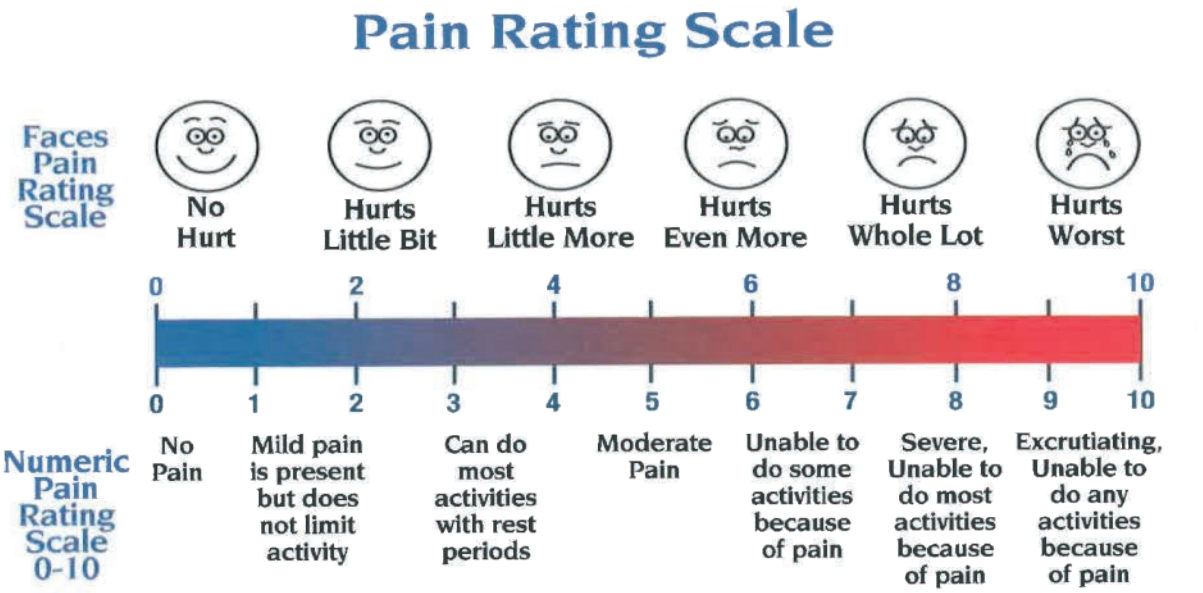
Once surgery is completed, you will be taken to the Post Anesthesia Care Unit (PACU) where you will be allowed to wake up from the anesthetics that were administered in the OR. You will have a dressing over your incision to protect the area from infection and promote healing. The nurses will apply cryotherapy over the dressing to provide a cool environment, which will lessen swelling, and you will be introduced to physical therapy.

**Intravenous Fluids and Medications**
During the post-op phase, you will continue to receive IV fluids that were initiated in the pre-op area. You will also be able to take ice chips or small amounts of water as you're able to tolerate them. Your IV will be removed before being discharged from the PACU.

**Pain Management**
Preoperatively, you will receive a regional nerve block, which helps to relieve pain after surgery. Intra-operatively a pain medication is injected directly into the hip. To assist us in minimizing pain after surgery you will be asked to rate the intensity of your pain using a pain scale of 1-10 (0 is no pain, 10 is excruciating). Pain is an important signal that your body needs attention. If your pain is not managed effectively, your recovery will be prolonged. A score of 2-3 is attainable and acceptable for most patients. Pain medication may be administered through your IV during the post-op period in recovery. It will be managed by oral medications after discharge. Keeping in mind that it may take 20-30 minutes for the pain medications to become effective, it is best to remain on schedule as directed by your physician for the first 3-5 days after your surgery. **Please note, post-operative narcotics will be discontinued 3 months following surgery.**

Your pain medication may have adverse ***side effects*** such as nausea, itching, and/or confusion. Please report any symptoms to nursing personnel. Another side effect is constipation. Senekot-S is an over-the- counter medication that is the drug of choice for narcotic-induced constipation.

**Pain Scale:** We expect you to be comfortable after surgery and will ask you to rate any pain you are experiencing in order to monitor your progress. The chart below is an example of the pain scale you will see while in the surgery center. It is a 10-point scale using 0 (no pain) to 10 (worst pain ever) to verbalize your intensity of pain during your recovery in the surgery center. You will also be asked to rate your pain while engaging in therapy.




Pain medications work best if they are used as the first signs of pain occur. If you wait until the symptoms have worsened, the medication may not work as well. Remember to use the numeric pain scale with your healthcare team when describing your pain. Set a pain goal number that is reasonable for you to perform activities of daily living. Pain will be more severe in the initial post op period and should improve as healing takes place. Follow the directions for frequency of use on each prescription bottle. SRS staff will provide you with a paper record to help you keep track of your dosages.

Common pain medications prescribed by your doctor after surgery include: • Tylenol

(Acetaminophen) is a pain reliever and a fever reducer. Acetaminophen is used to reduce fever and relieve minor pain caused by conditions such as colds or flu, headache, muscle aches, arthritis, menstrual cramps and fevers. Do not exceed 4000mg in a 24 hr period. This medication is best for to treat pain that is mild on a scale of 1-4.

- Ultram (Tramadol) is a pain medicine similar to an opioid and is classified as a synthetic opioid and is a controlled narcotic. It acts in the central nervous system (CNS) to relieve pain. Tramadol is used to treat moderate to severe pain in adults. Avoid alcohol and operating heavy machinery. This medication can cause constipation so remember to take your stool softener and increase your fluid intake while using this drug. This medication is best to treat pain that is on a scale of 5-10.

- Oxycodone is used to help relieve moderate to severe pain. Oxycodone belongs to a class of drugs known as opioid analgesics and is a controlled narcotic. It acts in the central nervous system (CNS) to relieve pain. Avoid alcohol and operating heavy machinery. This medication can cause constipation so remember to take your stool softener and increase your fluid intake while using this drug. This medication is best to treat pain that is on a scale of 5-10. Oxycodone is best to treat pain that is on a scale of 5-10.

- Meloxicam is used to treat arthritis. It reduces pain, swelling, and stiffness of the joints. Meloxicam is known as a nonsteroidal anti-inflammatory drug (NSAID). Take this medication by mouth as directed by your doctor, usually once daily. Take with food to avoid stomach upset.

**Postoperative Wound Care:** Your surgical incision will be closed with staples or sutures. An antimicrobial waterproof dressing will be placed over the surgical site while in the OR and left on for a period of 7 days. This will be checked in the recovery area.

You will be instrucred on how to care for your wound and change dressing in recovery at the Buffalo Surgery Center

Your surgeon will inform you of when you will be able to shower. Do not submerge your wound in water, (e.g. taking tub baths or swimming in a pool) until the wound is healed. The use of lotions, powders, topical antibiotics such as Neosporin and/or oils is also restricted after surgery until your first postoperative appointment due to risk of infection on operative site.

Swelling, also known as edema, is common after surgery. Cryotherapy is the application of ice to the surgical site and will be used to relieve swelling and pain. Ice will be applied by a device called a polar care. The polar care will be applied in recovery,after discharge. You and your family will be taught how to use the polar care in the surgery center and in the edication video. Performing the exercises as instructed by physical therapy will also decrease the incidence of swelling.

**Other Medications:** After surgery, you will resume your regular medications once able and per your doctor's orders. You may receive blood thinners (to prevent blood clots), stool softeners, antibiotics, and medication for nausea.

**Other Medications:** After surgery, you will resume your regular medications once able and per your doctor's orders. You will have to take your regular medications. You may receive blood thinners (to prevent blood clots), stool softeners, antibiotics, and medication for nausea.

Any medications prescribed by your surgeon will be filled and delivered to you at the BSC. The bill for any prescription co-payments will be sent to your home.

**Treatments:** You will be wearing an Intermittent Compression Device (ICD) in the recovery room and continue to wear them over the next 10 days while at rest. These are compression calf/foot pumps to reduce the risk of blood clots from forming in your legs. These will squeeze your legs at regular intervals and be worn at all times when in bed.

You will be instructed on deep breathing exercises and use of an incentive spirometer after discharge fier the next 3 days to prevent risk of pneumonia.

**Food & Fluids:** Directly following surgery, you may not have much of an appetite, but it is important to begin taking fluids once you can tolerate them. You will continue with IV fluids that were initiated before surgery, then progress to ice chips and clear drinking liquids. Once you are able to tolerate a liquid diet your IV will be discontinued and, you will be able to start on regular foods.

**Activity & Exercises:** Mobility will begin on the same days as surgery and progress with time. You will be instructed in precaution, the proper way to move around in bed, sitting to standing and vice versa. You will also be instructed in how to navigate stairs, enter/exit a vehicle, and perform activities of daily living (ADL).

Exercises learned in physical therapy will assist in decreasing swelling and strengthening muscles, which will alleviate pain. Your short-term postoperative goals are to ambulate 100 feet with a walker or crutches, get in and out of bed, bathe, dress, and walk up or down some stairs. The physical therapist will review this with you and your family.

## Postoperative Complications & Concerns

As with any surgery, there are risks associated with undergoing surgery. Please discuss your concerns and all possible risks with your surgeon before electing to have surgery.

**Infection:** The areas around your new joint and your wound are at risk for infection. You will receive antibiotics before and after surgery to help reduce your chance of infection. When at home please follow your surgeon's postoperative care instructions and monitor your wound site for signs of infection.

Signs of wound infection include, redness, swelling, excessive drainage, fever, and warmth to the touch. When at home please contact your surgeon's office immediately if you develop any of these signs at (716) 250-9999. Before calling, please have your pharmacy phone number available and list of any known allergies.

**Blood Clots (Deep Vein Thrombosis) and Prophylaxis:** The formation of blood clots in the veins of your legs is possible risk following surgery. After your surgery, an Intermittent Compression Device (ICD) may be applied. These devices simulate muscle contractions to promote circulation and prevent blood clots. The ICD will be used until you are able to ambulate consistently. You may also be instructed to take aspirin (blood thinning medication) twice a day after your surgery for 30 days.

**Nerve Damage:** There is a risk that some nerves around the surgical area may be damaged during your operation. Symptoms include numbness, tingling, and decreased sensation. Call your surgeon if you should have any concerns and exhibit these signs.

**Pneumonia:** Developing pneumonia is a risk associated with surgery. You will be instructed on respiratory exercises and use of an incentive spirometer while at the surgical recovery suite to prevent risk of pneumonia.

**Implant Loosening & Wear:** Over time, your implant may loosen or begin to wear. If you experience loosening from the surrounding bone or severe wear, you may have to have corrective surgery.

**Constipation:** Pain medications (narcotics) can cause nausea and constipation. To help avoid constipation, drink plenty of fluids and eat plenty of fruits and vegetables. In addition, you can purchase over-the-counter Senekot-S.

**Death:** In rare cases, death is a potential risk of any surgery.

# NOTES

# Other Postoperative Considerations

## In This Section...

- Returning to Work
- Return to Driving
- Office Visit Follow-up Schedule
- Dental Protocol
- Travel

# OTHER POSTOPERATIVE CONSIDERATIONS

## Returning to Work

Your return to work depends on your recovery process and your job function. Your surgeon and therapist will guide you on when is the right time for you. Following knee replacement surgery, patients typically return to work within 4 – 12 weeks.

## Returning to Driving

Following surgery, you will be restricted from driving. Before you are able to drive, you will need to be discontinued from any narcotics in order to be considered safe to control your vehicle. Your surgeon will direct you on when you can return to driving, which is typically within 2 – 4 weeks, depending on the operative knee and the above factors.

## Office Visit Follow-Up Schedule

It is important to follow up with your surgeon after your surgery. In most cases, joint replacement follow-ups last for many years. Standard of care follow-up visits are as follows: 2 weeks, 6 weeks, 3 months, 6 months, 1 year, and annually thereafter. You will have your staples or sutures removed at your 2 week appointment.

## Dental Protocol

Three to six months following surgery, refrain from having any dental procedures performed, including routine teeth cleanings. **For the duration of your lifetime, you may be required to take an antibiotic before all dental visits in order to avoid infection.** Your surgeon or dentist will give you specific guidelines for antibiotic therapy. Please call your surgeon to obtain a prescription prior to any dental work. Inform your dentist's office of your knee replacement surgery when scheduling any procedure.

## Travel

Commonly, patients with total joint replacements will set off metal detectors while traveling. You do not need to carry paperwork specifying that you had joint replacement surgery, but it is suggested to inform security before metal detector screening. Patients should refrain from traveling for 6-8 weeks after Total Knee Replacement.

# NOTES

# Rehabilitation

## In This Section...

- Rehabilitation After Total Joint Replacement
- Physical Therapy Exercise Program
- Follow-up Care in Outpatient Therapy Clinic
- Assistive Device Use
- Total Joint Replacement Precaution & Activity Guidelines
- Daily Functionality

# REHABILITATION

## Rehabilitation After Total Joint Replacement

**Physical Therapy:**

You will be seen by Physical Therapy one time at the Buffalo Surgery Center following surgery. Your therapist will instruct you on how to intiate mobility, weight bearing, walking, and eventually stair climbing by teaching you an exercise program that focuses on range of motion, flexibilty, and strength

Prior to discharge you will practice stair climbing and be able to walk short distances with the use of a walking aid.

- Using Cryotherapy (the use of cold) during all phases of rehabilitation is very important!
- Cryotherapy helps decrease pain while reducing swelling and inflammation.
- Cryotherapy can be in the form of cold compression cuff units ("Polar Care"), commercial cold packs or ice wrapped in bags.

## Outpatient Physical Therapy Exercise Program

It is important to perform the following exercises post operatively in order to achieve a positive outcome and return to normal activities of daily life. Your goal is to improve the overall strength of the operated leg, while minimizing any swelling and obtaining full functional range of motion.

Your physical therapist will educate you on the exercises that are appropriate for you. You will receive instruction on the number and frequency of exercises performed throughout the day, such as those listed below.

Ankle Pumps
Quad sets
Supine Heel Slides
Stair Stretch
Passive Knee Extension
Marching
Gait training with an assistive aid
Gluteal Sets
AROM / AAROM Exercise
Seated Heel Slides
Straight leg raises
Weight shifts
Balance Activities
Stair Climbing Training

## Follow-Up Care at Excelsior Outpatient Therapy Clinic

As part of the Excelsior Outpatient Total joint Replacement Program, all physical therapy you receive after discharge will be completed at one of our comprehensive physical and occupational therapy facilities, or an affiliated facility located at:

- 3925 Sheridan Drive in Amherst
- 260 Redtail Road in Orchard Park
- 10195 Niagara Falls Blvd in Niagara Falls
- 8750 Transit Rd in East Amherst
- 3760 S. Benzing Rd in Orchard Park
- 438 Main St Suite 103 in Downtown Buffalo
- In Jamestown at Chatauqua Physical Therapy at River Center - 15 South main Street, Suite 220
- In Mayville at Chautauqua Physical Therapy at Mayville Professional Building 99 East Chautauqua Street
- In Dunkirk at Chautauqua Physical Therapy 51 East Third Street

Approximate Physical Therapy Time Frame:

- Post-Op: Day 0-2
- Post-Op: Day 3 Begin Outpatient Physical Therapy
- Outpatient Therapy Clinic: 2x/week for 4-5 weeks

**Approximate Physical Therapy Time Frame:**

- Post -Op : Day 0-2
- Post-Op : Day 3 begin at Outpatient Physical Therapy Clinic
- Outpatient Therapy Clinic: 2-3x/week for 4-8 weeks

## Assisted Device Use

You may require the use of the following assistive aids:

Standard Walker
Rolling Walker
Standard Cane
Grab Bar
Elevated Commode Seat
Shower Chair

Please refer to **Durable Medical Equipment** section for further information and instruction.

## Total Knee Replacement Precaution & Activity Guidelines

After surgery, you will be required to follow specific activity guidelines until you are otherwise informed by your surgeon. Always follow your physical therapist instructions and recommendations. Please see below for additional information.

**General Guidelines**

- Perform your range of motion/flexibility exercises daily.
- Apply ice for 2 hours on 20 minutes as instructed. Use Polar Care as much as possible for first 3-4 days. (see Polar Care protocol details on page 38).
- Position your knee comfortably as you go about your daily activities.

**Lying**

- Elevate your leg an hour twice a day if possible for the first month. Elevate leg by placing pillows under your entire leg and foot to reduce swelling.
- Avoid placing pillows directly under your operative knee. Always attempt to keep knee out straight when lying down by pushing on your thigh to fully extend the joint.

**Sitting**

For at least the first month post-surgery, avoid prolonged sitting with your foot down greater than 30-45 minutes at a time to prevent increased swelling.

**Walking**

- Continue to use your walker, or cane until your surgeon or therapist tells you otherwise.
- Wear well-fitting shoes with non-skid soles.
- Take short, but frequent walks on a daily basis.
- Be aware and careful when walking on uneven ground and wet surfaces.
- Maintain your weight-bearing status as instructed until your surgeon or therapist tell you otherwise.
- Avoid pivoting or twisting on the operated leg. Always turn your whole body in stead of twisting your knee.
- Do not jump or place sudden jarring stress on your knee when standing.

**Bathing**

- You may use a walk in shower.
- You may use a tub shower with instruction assistance.
- DO NOT sit in the bottom of a regular bathtub; stand or use a tub seat or bunch.
- Utilization of a shower chair is ok if needed.

**Exercising**

Continue to practice your exercises at home until your surgeon or therapist tell you otherwise.

**Dressing**

Sit down when passing clothing over your feet.

**Household Chores**

- Avoid kneeling or squatting.
- Use a rolling cart to transport items.

**Transportation**

- DO NOT drive until it is cleared with your surgeon
- Avoid taking long car rides (1-2 hours). You may have to stop, get out, and take a short walk before continuing your car trip.

## Daily Functionality

The physical therapist and nurse will assist you in the following activities while at the Surgical Recovery Suite and in the outpatient therapy clinic. Detailed information on transfer activities and dressing is provided below.

- Sitting at the bedside and allowing your legs to dangle
- Transferring in and out of bed safely
- Walking with the aid of walker or cane
- Climbing stairs
- Performing range of motion, flexibility, and strengthening exercises
- Dressing
- Transferring on and off commode
- Transferring in and out of the shower and/or tub
- Transferring in and out of the car

### Bed Transfer: Toward Your Stronger Side

***Getting into Bed***

- Sit on your bed – closer to the head of the bed than the foot of the bed.
- Move back as far as possible (to the back of your knees, if possible). While moving backward, keep your hands flat on the bed, behind your hips.
- Using your arms to support yourself, turn your body a little toward the foot of the bed as you slide your stronger leg onto the bed. Then, slide your operative leg onto the bed. You may bend your stronger leg to help you get onto the bed.
- Gently lower yourself down onto the bed.

***Getting out of Bed***

- Push yourself up into a sitting position with your legs straight in front of you. Place your hands flat on the bed slightly behind your hips.
- Move your operative leg while you turn your body to face the edge of the bed. Slide your operative leg off the bed, then follow with your stronger leg.
- Slowly move forward until your feet are touching the floor. Wait a moment before slowly standing.

**Toilet Transfer:** Please note this section is tailored specifically for people using assistive devices.

***Sitting on the Commode***

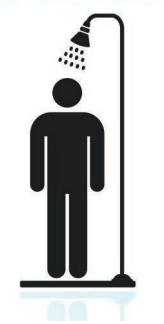
- Using your walker or cane, back up to the commode until you can feel it touch behind your knees.
- Keep your operative leg slightly in front of you.
- With both hands, reach back to the seat of the commode.
- Slowly lower yourself onto the seat.

***Getting up off the Commode***

- To get up, push off from the seat.
- When you stand, get your balance before reaching for your walker or cane.

***Safety Tips***

- Do not pull up on your walker. This could cause the walker to tip and you could possibly fall.
- If you are having trouble sitting down or standing up, try leaning forward over your toes when getting up or down. Think of the phrase "nose to toes."
- Tuck your stronger foot under the commode to stand.
- Once you are standing, be sure you have your balance before reaching for your assistive device.



**Shower Stall Transfer:** This section will instruct you on how to get in and out of the shower. There may be limits on the amount of weight you can place on your operative leg. You will need a special chair in the shower stall.

***Before you Shower***

Always remember to have all shower items within reach (i.e. soap, sponge, and towel).

***Getting into a Shower Stall***

- Use your walker or cane for support. Walk up to the edge of the shower stall, and then turn so your back is to the stall. Do not step into the shower stall.
- Reach back with one hand for the shower chair back or seat. Leave your other hand on the walker or cane.
- Lower yourself onto the shower chair.
- Lift your legs over the edge of the shower stall. Turn slowly to face the shower controls.
- Shower and dry while seated.

***Getting out of the Shower***

- While seated, turn slowly to face the opening of the shower stall.
- Using your walker or cane for support, stand and step out of the shower.

***Safety Tips***

- Use a long-handled sponge and a hand-held shower hose with on/off controls.
- Patients may shower standing if they are capable.

**Tub Transfer:** Please note this section is tailored specifically for people using assistive devices. You may need to use a special chair in the tub.

***Before you Bathe***

Always remember to have all shower items within reach (i.e. soap, sponge, and towel).

***Getting into the Tub Chair***

- The tub chair should sit in the tub facing the faucet. Using your walker, cane, or crutches for support, walk to the side of the tub.
- Stop next to the tub chair, then turn so your back is facing the tub.
- Back up until you feel the tub behind your knees.
- Place one hand on the side of the tub chair and keep one hand on your walker, cane, or crutches.
- Slowly lower yourself onto the seat. Carefully move back so you are firmly stationed in the chair.
- Once you are seated, lift your legs over the side of the tub one at a time. Let go of the walker, cane, or crutches. Turn to face the faucet.
- Wash yourself while being seated. A hand-held shower hose attachment for your faucet can make this process easier.
- Be sure to keep a towel within easy reach. Dry off while seated on the tub chair.

***Getting out of the Tub Chair***

- Turn on the chair and lift your legs over the side of the tub one at a time.
- Push off from the tub chair and stand up outside of the tub. Always have your bal-ance before reaching for your walker or cane.

***Safety Tips***

- You may need to sponge-bathe until your doctor says you may shower.
- While a shower chair/bench is not medically necessary after surgery; to prevent a slipping and falling risk one can be utilized for safety.
- Use a long-handled sponge, a leg-lifter, a hand-held shower hose with an on-off switch, and any other items you were told about in therapy.
- Consider adding grab bars or a tub rail to provide extra support.

## Car Transfer: Back Seat

- Be sure the front seats of the car are as far forward as possible.
- If you had surgery on your right knee, you should enter the back seat on the passenger's side of the car. If you had surgery on your left knee, enter the back seat on the driver's side.
- The car should be parked several feet away from the curb. With the back door open, stand on the street as close to the car as possible.
- Turn so your back is facing the seat. Back up until you feel the car seat behind both legs.
- Place one hand on the back of the front seat. Place the other hand on the back seat. **Never use the car door for support.**
- Carefully lower yourself onto the car seat. Slide back along the seat with your operative leg lying on the seat.

***Safety Tips***

- You can use pillows to cushion your back or to raise your leg, if your doctor says you may.
- Always wear your seat belt.

## Car Transfer: Front Seat

- Be sure that the front seat is as far back as it will go. Recline the seat back if you would like.
- The car should be parked several feet away from the curb. With the front door open, stand on the street as close to the car as possible.
- Turn so that your back is facing the seat. Back up until you feel the car seat behind both legs.
- Place one hand on the back of the car seat. Place your other hand on the car dash board. **Never use the car door for support.**
- Carefully lower yourself onto the car seat. Slide back until your knees are on the seat. Lean backwards, keeping your shoulders behind your hips as you slide back.
- Bring your legs into the car one at a time. Move each leg a few inches at a time. If you need to, use your hands to help move your legs.
- Continue to do this slowly until you are facing forward. Be sure that your hips and knees are at the same level while seated.

***Safety Tips***

- Place a pillow in a garbage bag and then place on the car seat. This will make it easier for you to move on the seat.
- Use pillows to cushion your back, if your doctor says you may.
- Always wear your seat belt.

## Lower Body Dressing: Socks and Shoes

***Helpful Hints***

- Gather your socks and shoes, dressing aids, and walker. Place them within easy reach.
- Wear slip-on shoes or use elastic shoe laces.
- To put on anti-embolism stockings (such as TED) or support hose, use a sock aid made of hard plastic.
- Always follow your hip precautions as instructed.

### *Socks and Stockings*

**To put on socks or hose**

- Place the sock aid into your sock or stocking. Make sure the heel of your sock is at the back of the sock aid. For support hose, be sure to spread the hose over the sock aid evenly, without "bunching."
- Hold the sock aid by the straps with both hands. First, dress the foot of the operative leg. This is called the "affected" or "weaker" leg. While holding the straps, drop the sock aid to the floor in front of the foot on your weaker leg.
- Slip your foot into the sock aid. Then pull on the straps to get the sock aid onto your foot.
- Pull until the sock is up your leg. Keep pulling until the sock aid comes out of your sock.
- Follow the same steps to put a sock on the other foot.

**To remove socks or hose**

- Hold your long-handle shoe horn, reacher, or dressing stick. Use it to push the sock off your foot. Slide or push down along the back of your leg and heel.
- Use your reacher to pick up your socks from the floor.

### *Shoes*

**To put on shoes**

- With your reacher, pinch the tongue of the shoe.
- Use the reacher to line up the shoe with your toes.
- Slide your foot into the shoe. You may want to use a long-handle shoe horn in the back of your shoe.

**To take off Shoes**

- Hold your reacher, dressing stick, or long-handle shoe horn. Use it to push your shoes off.
- Push the shoe off from your heal.

## Lower Body Dressing: Skirt, Pants, and Underwear

***Helpful Hints***

- Gather your clothes, dressing aids, and walker. Place them within easy reach.
- Choose clothes that fit loosely. Put on your socks and shoes before you stand to pull clothing over your hips. Also have your clothing pulled above your knees before you stand.
- Always follow your hip precautions as instructed.

**How to put clothes on**

- Lay out your skirt, pants, or underwear as you would normally.
- Sit down. Use the reacher to pinch the waist of the garment.
- Lower the garment to the floor. First, slip it over the operative leg and then pull it over the other (stronger) leg.
- Use the reacher to pull the garment up and over your knees.
- Stand up with your walker in front of you. Be sure to keep your balance.
- Pull the garment over your hips.
- Sit down to button or zip the garment.

**How to take clothes off**

- Sit down and unbutton or unzip your garment.
- Stand up with your walker in front of you. Be sure to keep your balance.
- Pull the garment down over your hips.
- Push the garment down and over your knees.
- Sit down.
- Lower the garment to the floor. Slip it over the operative leg first and then over the stronger leg.
- Use the reacher to pinch the waist of the garment and then remove it completely.

# NOTES

# Durable Medical Equipment and Assistive Devices

## In This Section…

- Assistive Devices and Equipment

## Durable Medical Equipment and Assistive Devices

| Provided and Included DME | Not Provided DME But Considerations |
|---|---|
| Standard Walker | Raised Commode |
| Cane | Grab Bar |
| Venago's | Shower Chair |
| Hip & Knee Kit | Raised Chair Pad |
| Spirometer | |

**If you would like any of the items that are not provided, please contact our office for a prescription to obtain them.**

**Polar Care Instructions**

You have been provided with a cold therapy unit to assist with controlling pain and swelling postoperatively. This unit consists of a pad, pump, and cooler. The cooler holds ice and water that is circulated by the pump through the pad. **It is very important that you have a layer of material (gauze, washcloth, or cotton padding) between your skin and the pad to prevent a freeze burn. Do not let any part of the Pad touch skin. If a sterile dressing has been applied to the treatment site that does not completely cover the skin under the pad, use an additional insulation barrier.**

1. Fill the cooler with ice and add water to the top of the ice. Secure the cooler lid on top of the cooler. Place the cooler at or below the height of the pad, but no more than 2 feet below. Check ice water every 8-10 hours.
2. Connect the pump to the pad by pushing the couplings together firmly until you hear a click.
3. To start the pump, plug the transformer into a 110 VAC, 60 Hz wall outlet. Insert the molded plug into the cooler lid.
4. Replace ice and water before ice has melted completely.
5. To stop pump, remove the plug at the cooler lid or the transformer from the wall. *Do this before disconnecting the pad.
6. See attached contraindications and usage directions per guidelines outlined on attached sheet.
7. The temperature should be between 45-55 degrees after 10 minutes of circulation. This is self-regulated in the unit.

POLAR CARE TROUBLESHOOTING GUIDE

- Moisture on the lines, controller and pad are normal and are caused by the mois ture in the air collecting on a cold surface.
- The height of the cooler affects the pressure in the pad. It is important to keep the height of the cooler at or below the pad height, but no more than 2 feet below.
- It is normal for a small amount of water to be present when disconnecting the pad from the pump.
- If the pump is not functioning and you are using an extension cord, disconnect from the extension cord and plug the transformer directly into the wall outlet.
- Be sure there are no folds or kinks in the pad when applied. **Pad kinking is the most common reason for improper performance.**

## Usage of Polar Care

| Treatment Period | Frequency and | Skin Inspection |
|---|---|---|
| Day 1– 3 | ***While awake: Cyclic*** 2 hours on 20 minutes off | 1-2 hours |
| | ***While asleep:*** As needed for pain/swelling not to exceed 2 hours on with a minimal 20 mins off | After each use |
| Day 4-5 | ***While awake: Cyclic: As needed*** 2 hours on 20 minutes off | 1-2 hours |
| | ***While asleep:*** As needed for pain/swelling not to exceed 2 hours on with a minimal 20 mins off | After each use |
| Day 6 - 14 | ***While awake:*** As needed for pain/swelling not to exceed 2 hours on with a minimal 20 mins off ***While asleep: Discontinue*** | After each use |

### You should NOT use Polar Care if you...

- Have a history of cold injury, frostbite, or adverse reactions to local cold application.
- Are incoherent due to general anesthesia, sedation, or coma.
- Have application areas with compromised local circulation or potential wound healing problems, including localized compromise due to multiple surgical procedures
- Have circulatory syndromes, including Raynaud's disease, Buerger's disease, Peripheral vascular disease, vasospastic disorders, sickle cell anemia, and hypercoagulable clotting disorders.
- Have local tissue infection.
- Have Diabetic Polyneuropathy.

**Walkers**

If you have had a total knee or hip joint replacement surgery, you may need more help with balance and walking than you can get with crutches or a cane. The walker allows you to keep some of your weight off your lower body as you take your steps. You can use your arms to support some of the weight. The top of the walker should match the crease in your waist when you stand up straight.

***Walking***

First, put your walker about one step ahead of you, making sure the legs of your walker are level to the ground. With both hands, grip the top of the walk er for support and walk into it , stepping off on your injured leg. Touch the heel of this foot to the groundfirst, then flatten the foot and and lift the toes off the ground as you complete your step with your good leg. Don't step all the way to the front bar of your walker. Take small steps when you turn.

***Sitting***

To sit, back up until your legs touch the chair. Reach back to feel the seat before you sit. To get up from a chair, push yourself up and grasp the walkers grips.Make sure the rubber tips on your walker's legs stay in good shape.

***Stairs***

Never try to climb stairs or use an escalator with your walker.

## Canes

You may find it helpful to use a cane if you have a problem with weakness in your leg or trunk, balance or instability, or pain.

### *Proper positioning*

The top of the cane should reach the crease in your wrist when you stand up straight. Your elbow should bend a bit when you hold your cane. Hold the cane in the hand opposite the side that needs support (good leg side).

### *Walking*

When you walk, the cane and your injured leg swing and strike the ground at the same time. To start, position your cane about one small stride ahead and step off your injured leg. Finish the step with your good leg.

### *Stairs*

To climb stairs, grasp the handrail and step up with your good leg first, with your cane in the hand opposite the injured leg (good leg side). Then step up on the injured leg. To come down stairs, put your cane on the step first, then your injured leg, and finally the good leg, which carries your body weight

# Intermittent Compression Device (ICD)

Post-operative you will be prescribed the use of automated leg pumps to help reduce the risk of a blood clot formation. You will wear these units on both legs anytime you are sedentary (seated or sleeping). These will need to worn for the first 10 days after surgery.

## BATTERY INDICATOR:

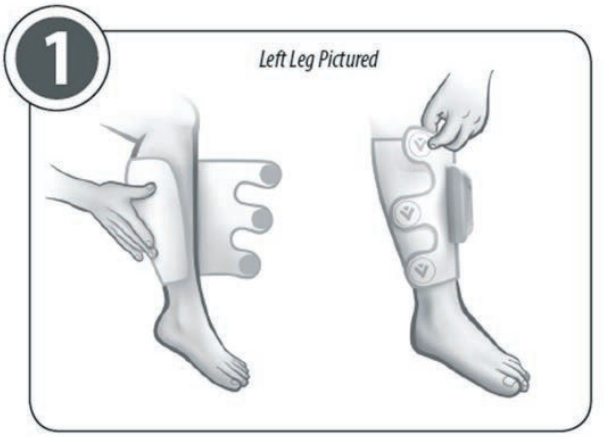
In order to properly indicate the state of the battery and charger, there are THREE stages of the BATTERY INDICATOR as follows:

**STAGE 1 – GREEN:** When unit power is ON and fully operational.

**STAGE 2 – YELLOW:** The yellow LOW BATTERY INDICATOR will REMAIN ILLUMINATED during the pumping time and rest period. At this stage the battery charger MUST be connected immediately to avoid any interruption in the treatment sessions.

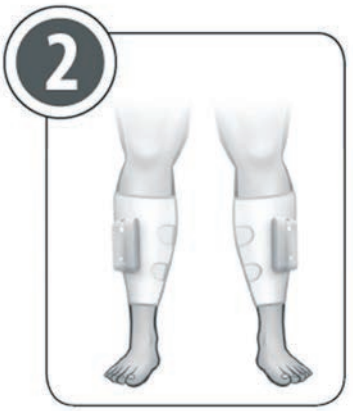
**FLASHING YELLOW:** If the battery voltage drops below a critical level at any time, while unit is ON, flashing yellow and audible alarm beeps for 30 seconds. Unless unit is turned off OR connected to charger within that 30 seconds, unit WILL AUTOMATICALLY power OFF.

**STAGE 3 – RED:** When the unit is turned OFF and the battery is charging, the RED LED FLASHES. Once the battery reaches full charge, the RED LED REMAINS SOLID.




**CALF CUFF APPLICATION**

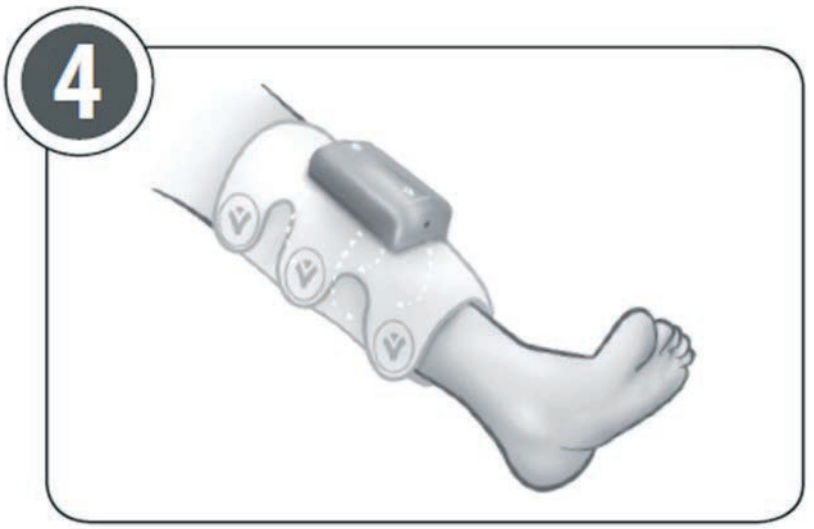
Wrap the cuff around the calf and secure the Velcro to hold it in place. Make sure the wrap is snug, but not too tight.




When both wraps are secured on your legs, they should look like the picture above.


**TURNING THE DEVICE ON**

When the wraps are secured on your legs PRESS and HOLD the WHITE power button for about a second until the light is illuminated on each unit.



# NOTES

# Patient Checklists

## In This Section…

- General Reminders: Day Before Surgery
- Appointments

# PATIENT CHECKLISTS

## Day Before Surgery

### General Reminders

- ☐ Pack personal items, including:
  - ☐ Comfortable clothing
  - ☐ Medications and instructions
  - ☐ Assistive device(s)
  - ☐ Glasses, dentures, hearing
  - ☐ Breathing Equipment (CPAP/BiPAP)
  - ☐ Non-Skid Shoes/Sneakers
- ☐ Confirm your house is prepared for your arrival home (remove clutter, meal items, pet care, etc.)
- ☐ Confirm your time of surgery
- ☐ Confirm your transportation to the Buffalo Surgery Center
- ☐ Take medication as instructed
- ☐ Have a well-balanced meal
- ☐ Drink plenty of water
- ☐ Do NOT eat after midnight
- ☐ You may drink clear liquids up to 2 hours prior to surgery

# PATIENT CHECKLISTS

| Day Before Surgery |
| --- |
| General Reminders |

- ☐ Shower with antimicrobial skin cleanser (Hibiclens®)
- ☐ Brush teeth
- ☐ Bring your insurance card/driver's license
- ☐ Bring form of payment for copay
- ☐ DO NOT bring valuables
- ☐ DO NOT eat or drink, unless otherwise instructed
- ☐ DO NOT take medications, unless otherwise
- ☐ DO NOT apply make-up, skin or hair products
- ☐ DO NOT wear contact lenses
- ☐ Arrive at Buffalo Surgery Center on time

BUFFALO SURGERY CENTER

3925 Sheridan Drive,
Amherst, NY 14226
(716) 250-6520

THE • MOSEY

5195 Main St.—Unit 4D
Amherst, NY 14221
716-276-9724