





# O<sup>1</sup> orthopedic ONE

# Your Step-by-Step Guide

Total Knee Replacement and Your Recovery

## Your Step-by-Step Guide For Knee Replacement

#### **Preparation – Surgery – Recovery**

At Orthopedic ONE, we take a partnership approach to healthcare; this includes your entire healthcare team, and you, actively participating in your plan of care.

We recognize the trust you placed in us and assure you that your entire care team at Orthopedic ONE will work hard to ensure the best possible outcomes and experience. Our goal is to improve your range of motion and help you return to an active lifestyle, while decreasing painful symptoms you may have had prior to surgery.

You are also an important member of your care team. One of the most important influences in reaching these goals to optimal recovery is when patients are educated and engaged in their care and therapy.

This recovery guide will prepare you throughout the process for what to expect and what is necessary for you to have the best surgical outcome. While this guide should cover many of your concerns or questions, we encourage you to keep an open line of communication with your care team; this will help us better care for your needs and prevent complications.

Please take time to read this booklet and share with family and other caregivers. It is our honor to care for you. Thank you for giving us this opportunity to help you get back to a life of doing the things you love most.

## STEP-BY-STEP GUIDE TO KNEE REPLACEMENT Table of Contents

## Your Knee Replacement

| Considerations                 | • |
|--------------------------------|---|
| Total Knee Replacement Surgery | • |
| Realistic Expectations         | • |
| Understanding the Operation    | • |

## Preparing for Surgery

| Pre-Operative Checklist      | 5  |
|------------------------------|----|
| 2 – 4 Weeks Prior to Surgery |    |
| 1 Day Prior to Surgery.      |    |
| Day of Surgery Checklist1    |    |
| Day of Surgery               | 11 |

## Post Surgery & Recovery

| Home Care Overview             | . 17 |
|--------------------------------|------|
| Controlling Swelling           | . 18 |
| Incision Care                  | . 20 |
| Medication & Pain Management   | . 21 |
| When to Contact Your Physician | . 28 |
| Physical Activity and Exercise | . 29 |
| Post-Operative Expectations    | .30  |
|                                |      |

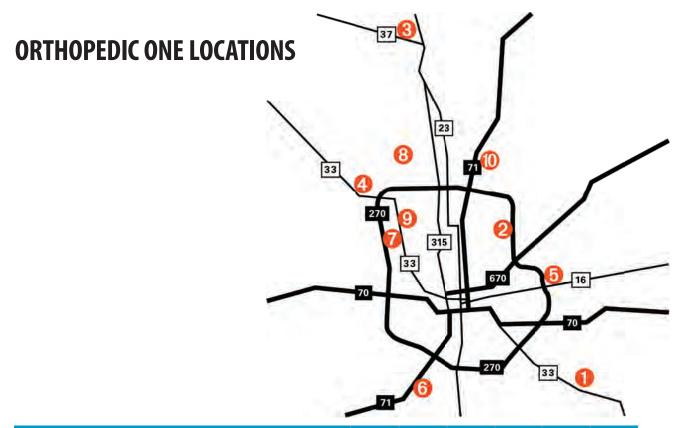
## **Physical Activity and Exercise**

| Exercises  |   |  | • |   |   |   |  | <br>• | • | • | • | • |   |   |   | • |   |   | • |   |   |  |  | <br> | <br> | .3 | 33 |
|------------|---|--|---|---|---|---|--|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|------|------|----|----|
| Activities | • |  | • | • | • | • |  | <br>• | • | • | • | • | • | • | • | • | • | • | • | • | • |  |  | <br> | <br> | .3 | 37 |

## **Preventing Complications**

| Infection and Prevention45 |
|----------------------------|
| Blood Clots – Deep Vein    |
| Thrombosis (DVT)46         |
| Constipation               |
| Stiffness48                |
| Nerve Injury48             |
| Bone Fracture, Ligament or |
| Tendon Injury48            |

## **Additional Information**



| LOCATION  | ADDRESS      | PHONE        | PHYSICIAN<br>CLINIC | PHYSICAL<br>THERAPY | HAND<br>THERAPY                       | AQUATIC<br>THERAPY  | ORTHOTICS | JOINT<br>THERAPY |
|---|--------------|--------------|---------------------|---------------------|---------------------------------------|---|-----------|------------------|
| <b>CANAL WINCHESTER</b><br>7901 Diley Rd.   Canal Wincheste         | r, OH 43110  | 614.545.7900 | 1                   | 1                   |                                       | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |           |                  |
| COLUMBUS – EASTON<br>3600 Stelzer Rd.   Columbus, OH                | 43219        | 614.827.1300 |                     | 1                   |                                       |   |           |                  |
| <b>DELAWARE</b><br>460 W. Central Ave.   Delaware, C                | )H 43015     | 740.369.8751 | 1                   | 1                   |                                       |   |           |                  |
| <b>DUBLIN</b><br>6840 Perimeter Dr.   Dublin, OH 4                  | 3016         | 614.827.8700 | 1                   | 1                   | • • • • • • • • • • • • • • • • • • • |   | 1         |                  |
| GAHANNA/REYNOLDSBURG<br>170 Taylor Station Rd.   Columbu:           | s, OH 43213  | 614.545.7900 | 1                   | ✓                   | 1                                     | 1   | 1         | <i>√</i>         |
| GROVE CITY<br>5500 N. Meadows Dr.   Grove City                      | r, OH 43123  | 614.488.1816 | 1                   | 1                   | 1                                     |   | 1         |                  |
| HILLIARD PHYSICIAN CLINIC<br>3777 Trueman Ct.   Hilliard, OH 4.     | 3026         | 614.488.1816 | 1                   |                     |                                       |   |           |                  |
| HILLIARD PHYSICAL THERAPY<br>4611 Trueman Blvd.   Hilliard, OH      | 43026        | 614.340.0683 |                     | <b>√</b>            |                                       |   | 1         |                  |
| POWELL PHYSICIAN CLINIC<br>10330 Sawmill Pkwy.   Powell, O          |              | 614.545.7900 | 1                   |                     |                                       |   |           |                  |
| POWELL PHYSICAL THERAPY<br>10104 Brewster Ln.   Powell, OH          | 13065        | 614.827.8390 |                     | <b>√</b>            |                                       |   |           |                  |
| UPPER ARLINGTON<br>4605 Sawmill Rd.   Upper Arlingt                 | on, OH 43220 | 614.827.8700 | 1                   | 1                   | 1                                     |   | 1         |                  |
| UPPER ARLINGTON JOINT THERA<br>4604 Sawmill Rd. (Across the Street) |              | 614.827.1050 |                     |                     |                                       |   |           | ·····            |
| WESTERVILLE<br>560 N. Cleveland Ave.   Westervil                    |              | 614.839.2300 | 1                   | 1                   | 1                                     |   | 1         |                  |

## STEP-BY-STEP GUIDE TO KNEE REPLACEMENT Your Knee Replacement

#### **Considerations**

Patients who take control of their care, maintain a positive attitude, and commit to exercise, before and after surgery, experience the best possible outcomes. We recommend a detailed review of the information prior to your surgery, utilization of the pre-surgery checklists for planning, and that you refer back to this guide often during your recovery.

Your engagement throughout the entire process of surgery and recovery is the key to a successful outcome.

### **Total Knee Replacement Surgery**

The total joint surgeons at Orthopedic ONE have decades of experience combined with advanced training in knee replacement procedures. Knee Replacement is offered as a treatment for pain relief and to help you regain independence in your daily activities. Your knee may have become damaged by arthritis or injury resulting in pain, stiffness, swelling, or weakness. It is often difficult to perform simple activities such as walking or climbing stairs due to joint pain.

Knee replacement surgery is a safe and effective procedure in relieving knee pain and restoring joint function. When conservative treatments such as physical therapy and medications are unable to relieve your pain and improve your mobility, a knee replacement is often the next intervention. Total knee replacements are one of the most successful procedures in all of medicine.

## **Realistic Expectations**

The primary indication for knee replacement is to treat the pain associated with knee arthritis when medications or activity modification are no longer effective. Your dedication to physical therapy and strengthening play a major role in the success of your surgery. Patients should continue to improve over the next 18 to 24 months after surgery.

While the joint replacement will not return your knee to its pre-arthritic state, it can significantly improve the quality of life for those who suffer from the pain of knee arthritis. Day to day activities can be made easier. Activities like walking, bicycling, and golf are perfectly compatible with knee replacement surgery.

### **Understanding the Operation**

The knee is the largest joint in the body and connects the two longest bones. The knee bears the weight of our upper body and the stress as we walk, run and jump. A healthy knee bends easily absorbing the stress as we walk, squat and turn without pain.

Knee replacement surgery replaces your painful surfaces with a specially designed knee prosthesis (implant). The new artificial joint is made from a combination of metal and plastic materials. The choice of implants varies from person to person, your surgeon will choose the best implant for your needs and lifestyle.

## **STEP-BY-STEP GUIDE TO KNEE REPLACEMENT**

## Your Knee Replacement Cont'd

Knee replacement surgery consists of these basic steps: (See illustrations to the left)

- Through an incision, the surgeon removes the diseased and painful bone and cartilage replacing them with (4) smooth surfaces implants (A, B, C, D).
- Femoral component (A) caps the end of the thigh bone (Femur).
- Tibial components (C/D) cover the large lower leg bone (Tibia) underside of the knee joint.
- The knee cap component (B) resurfaces the bottom of the kneecap (Patellar) and a very dense plastic spacer, that allows the new components to glide smoothly together, somewhat like the hinge of a door.
- The incision is then carefully closed with stitches or staples.

# For further information look at these web sites:

American Academy of Orthopedic Surgeons orthoinfo.aaos.org Arthritis Foundation arthritis.com American Association of Hip & Knee Surgeons aahks.com

Normal Knee Joint

**Diseased Knee Joint** 





# PREPARING FOR SURGERY



NOTES



# PRE-OPERATIVE CHECK LIST

| $\square$ Read this packet and bring it with you on the day of surgery  |
|---|
| Complete Pre-Admission Testing  |
| Date/Time /   |
| Additional clearances, if necessary (cardiologist, pulmonologist)   |
| Pre-Operative Physical Therapy Appointment  |
| Date/Time /   |
| Start daily pre-operative exercises (see the Physical Activity & Exercise tab section page 31)  |
| Total Joint Replacement Class   |
| ·   |
| Date/Time /   |
|   |
| Date/Time /   |
| Date/Time /   |
| Date/Time /   |
| Date/Time /<br>Stop medications, as directed<br>Start stool softener<br>Shower with antibacterial soap<br>Arrange for caretaker to be with you for the first 5-7 days                           |
| Date/Time /<br>Stop medications, as directed<br>Start stool softener<br>Shower with antibacterial soap<br>Arrange for caretaker to be with you for the first 5-7 days<br>following your surgery |

## 2-4 Weeks Prior to Surgery



Patient Education Workbook – Read this binder.

**Total Joint Replacement Class** – Orthopedic ONE provides total joint classes to help you prepare for surgery and know what to expect. You are strongly urged to attend a class. The class is free to attend and full of helpful information. Caregivers are encouraged to attend as well. If you do not have a class scheduled, you can do so by calling your surgeon's office.

**Pre-Op Exercises** – While you may already be in fairly good physical shape there are certain exercises which will help prepare your body for this specific type of surgery. On page 31 are specific exercises you should begin to do prior to surgery. Patients who commit to exercise before and after surgery are the ones who ensure the best possible outcomes for themselves.



You can also view the joint class and exercises online in video format by visiting www.orthopedicone.com/patientresources/patient-education

**Pre-Surgery Physical Therapy** – Schedule your one-time physical therapy appointment prior to surgery. During this appointment, you will meet one on one with a physical therapist who will assess your mobility and physical therapy needs. You will be taught strengthening exercises to prepare your muscles for surgery. You will also be instructed on how to ambulate with a walker/ cane, navigate stairs, how to get in and out of your bed and car after surgery. Your physical therapist will discuss equipment you may need at home and provide home safety tips. Caregivers are welcome to attend this appointment to better assist you at home.

**Pre-Admission Testing** – Medical clearance is required for surgery. Your pre-admission testing appointment must be completed within 30 days of your surgery to be considered current. Medical clearance may be done with your Primary Care Physician or at select hospitals. Pre-admission testing will include a medical history and physical exam, blood work (Hemoglobin A1c for diabetics), EKG, and possible X-ray.

#### Items to Bring to Pre-Admission Testing Appointment:

- Insurance Cards and Photo Id
- List of Current Medications Detailed list of your current medications, including dosage and frequency. Include respiratory inhalers, hormones, vitamins, herbal supplements, and over the counter medications.
- Allergies List any medication, environmental and/or metal allergies you may have. Include reactions to anesthesia or blood transfusion restrictions.
- Medical History List of past/current medical issues and surgeries.
- Cardiac Testing and Medical Clearances Based on your medical history and/or

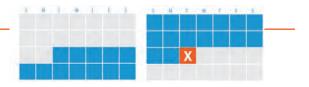
# 2-4 WEEKS Prior to Surgery

medications, you may require medical clearances, in addition to pre-admission testing prior to your surgery. If you see a cardiologist or other specialist, we will need clearance for surgery from that physician.

Arrange for a Caregiver – You will need assistance for up to the first 5-7 days following your surgery. A caregiver should be available to help with meal prep, transportation, medications, housekeeping and initial bathing/ stair negotiation. If you are unable to make arrangements with a care giver, please call your surgeon's office to discuss.

**Prepare Your Home** – Setting up your home for your return before you have surgery will help keep you safe, make your life easier, and aid in your recovery. Consider the following to help prepare your home for recovery.

- Have clear pathways into the house and remove clutter around your home.
- Make a walking path that a walking aid such as a walker will fit through your home.
- Move obstacles such as throw rugs, extension cords, and footstools. Consider using doubleface tape to secure carpet edges.
- Check stair railings to make sure they are secure. It is best if all stairs have railings.
- Consider first floor options (temporary) if your bedroom and bathroom is not on the main floor.
- Avoid reaching or bending, keep frequently used items within easy reach, especially in the kitchen, bathroom, and bedroom.
- Make sure you have adequate and accessible lighting throughout the house, especially at the top and bottom of stairs.
- Make sure a phone is always accessible and close by.



- Find someone to help care for your pet if needed.
- Make meals and ice packs in advance.

**Post-Operative Physical Therapy** – It is important to establish your outpatient physical therapy plans in advance. Schedule your first outpatient physical therapy appointment and arrange for transportation. You may choose an Orthopedic ONE physical therapy location from the map at the front of this booklet or an outpatient physical therapy setting closer to your home. You will need a physical therapy prescription, provided by your surgeon.



## 2-4 WEEKS Prior to Surgery

**Post-Operative Assistance Aids** – A walker and cane are standard equipment used by all patients recovering from joint replacement surgery.

- Walker (Front wheeled, not a Rollators<sup>®</sup> or walker with seat)
- Cane
- Toilet Seat Riser Depending on the height of your toilet seat, you may want a toilet seat riser.

**Adaptive Equipment Kit** – Below is a list of suggested items that can make your life easier and keep you safe.

- Reacher used to pick up items, reach high items, put on or take off pants.
- Sock Aid allows you to put on socks without bending over.
- Long-Handled Bath Sponge allows you to wash areas of your body without bending.
- Long- Handled Shoe Horn
- No Tie Shoelaces allows you to slip shoes on and off without having to tie or untie them.
- Dressing Stick

8

Medical equipment can be purchased at most Walmart, CVS, or Walgreen's stores. You may also check online availability at retailers like Amazon.

Walkers may be covered by insurance and provided by the hospital and surgery center. Check with your providers office for more information on whether or not a walker should be purchased in advance.

**Dental Procedures** – It is important that you have no infections, tooth decay, or dental abscess in your mouth. If you are in need of dental work, you will want to complete this and allow time for healing prior to surgery. You may need a clearance letter from your dentist stating that you have had a recent dental exam and are cleared for surgery. **Important** – Inform your surgeon if you have any skin infections, open wounds, dental infections, or urinary infections. These may cause a delay in your surgery.

Please tell you surgeon if you have a metal allergy or sensitivity. Inform your surgeon if you are allergic or unable to wear metal or jewelry.

#### **Pre-operative Medication Instructions**

Unless you have specific instructions from your physician to continue, stop these medications before surgery:

Chronic Anticoagulants: Chronic blood thinners, such as Coumadin<sup>®</sup>, Pradaxa<sup>®</sup>, Eliquis<sup>®</sup>, Xarelto<sup>®</sup>, Plavix<sup>®</sup>) must be stopped prior to surgery. You MUST discuss specific instructions with your prescribing physician prior to surgery.

10 days prior to surgery: Stop aspirin. If you have a cardiac history and have been instructed by your physician to take aspirin, you MUST discuss holding this medication with your prescribing physician. Your cardiologist may instruct you to continue your aspirin regimen.

**7 days prior to surgery:** Stop all NSAIDs, herbal supplements, and vitamins. This includes all ibuprofen and naproxen products, Advil<sup>®</sup>, Motrin<sup>®</sup>, Nuporin<sup>®</sup>, Aleve<sup>®</sup>, naprosyn<sup>®</sup>, Voltaren<sup>®</sup>, etc.

You may take Tylenol<sup>®</sup> (acetaminophen) for pain up until the day of surgery as needed.

## **1 DAY** Prior to Surgery

**Diabetic patients** – Check with your primary care physician to adjust your diabetes medications the night before your surgery, as needed.

Your physician(s) will provide instructions regarding medications you should or should not take the morning of surgery.

Prevent Constipation – Anesthesia and pain medications are both very constipating. Start taking a stool softener 2 to 3 days before your surgery. Continue with stool softeners for the duration of time that you are taking pain medication. Stool softeners (Senocot-S<sup>®</sup>, Colace<sup>®</sup>, Docusate<sup>®</sup>) are available over the counter.

**Time of Arrival** – The surgery center or your surgeon's office will contact you late in the afternoon of the business day before your surgery and will tell you what time you need to arrive.

**Transportation** – Confirm you have transportation available for your discharge.

**Medications** – Follow your specific instructions regarding medications to take and not take the morning of surgery.

**Shower** – Shower with antibacterial soap, or a CHG soap (Hibiclens<sup>®</sup>) if provided by your surgeons office, before going to bed and again the morning of surgery to reduce risk of infection.

O NOT use lotions, perfumes, powders, or cosmetics after your shower.

**Contacts and Glasses** – Remove contacts prior to surgery. Bring your glasses to wear, as needed.

**Food/Drink** – Specific instructions do vary based on facility. Do not eat or drink anything after midnight unless you have specifically been told otherwise.

Get a good night's sleep and bring your positive attitude!







## DAY OF SURGERY CHECK LIST

- Photo ID
- □ Insurance cards and any co-payments
- Medication list
- Comfortable, loose fitting clothing, non-skid shoes
- Remove all jewelry and cosmetics
- Do not bring valuables

# PREPARING FOR SURGERY DAY OF SURGERY



#### What to Bring With You

- Photo ID or driver's license
- Insurance card(s) and any co-payments
- Medication List A detailed list of your medications including the dosage and frequency for each medication. Include prescription and over the counter hormones, herbal supplements and inhalers.
- Rescue respiratory inhalers, as needed.
- CPAP/sleep apnea machine, if you use one.
   Please bring it clean and labelled with your name.
- **Toiletries**, as needed.
- Copy of your Advanced Directives (Living Will) and Durable Power of Attorney
- This notebook

#### Before Departing For the Hospital or Surgery Center

**Shower** – Shower with antibacterial soap, or a CHG soap (Hibiclens<sup>®</sup>) if provided by your surgeons office, before going to bed the night before surgery and again the morning of surgery to reduce risk of infection.

**Dress** – Wear comfortable, loose fitting clothing and non-skid shoes. Do not wear jewelry or cosmetics. Wear glasses and not contact lenses, as needed.

**Medication** – If you were told to take any medication prior to surgery, do so with a small amount of water.

**Packing** –Do not bring any jewelry, valuables or cash.

**Arrival** – You will arrive at instructed time two hours prior to your surgery time.

# PREPARING FOR SURGERY DAY OF SURGERY Cont'd

#### What to Expect the Day of Surgery Surgery Prep

The actual joint replacement surgery takes approximately 1-2 hours. The preoperative and recovery room period will take an additional 2-3 hours. Upon arrival you will complete the necessary paperwork, change into a gown and slippers and have your vital signs taken and monitored until you go to the operating room.

While in the preoperative area, your surgeon will come to see you. An IV will be started and you will be given antibiotics. Nurses will provide you with a surgical skin wipe and will provide instructions on how to use the skin wipe prior to surgery. This wipe is an additional step to help reduce the risk of post-operative infections.

#### Anesthesia

While in the preoperative area before surgery, an anesthesiologist or nurse anesthetist will meet with you to discuss your medical history, allergies and your anesthetic plan.

If you have ever had a reaction to anesthesia during a previous surgery, have had difficulty with placement of a breathing tube, or have sleep apnea, be sure to tell your anesthesiologist. Please let your surgeon and the anesthesiologist know if you or any of your family members have ever experienced a bad reaction from anesthesia during a previous surgery.

You, the anesthesiologist or nurse anesthetist and your surgeon will determine which type of anesthesia is best for you. This may include a peripheral nerve, or pain block. If you have specific questions regarding anesthesia, talk with your surgeon prior to surgery. The anesthesiologist will monitor your vital signs and progress throughout surgery to ensure that you are safe, comfortable and pain free during the surgery. They will also accompany you to the recovery room to continue monitoring your progress.

#### **The Operating Room**

After the anesthesia has taken effect, the skin around the knee is scrubbed with an antiseptic. Surgery times vary for a joint replacement but are usually 1-2 hours. Non-surgical delays do occur and a longer surgery time does not indicate a problem.

#### **The Recovery Room**

After your surgery is completed, a dressing will be placed over your incision. You may have a catheter in your bladder for a short time after surgery. In most cases, your IV will remain in until you are discharged. A recovery room or PACU nurse will monitor your vital signs and pain after surgery. Multimodal pain control using narcotic and non-narcotic pain medication will be prescribed to control pain and discomfort.

Please ask for medication to make you feel more comfortable if you experience pain or nausea.



## DAY OF SURGERY Cont'd

#### **Your Family and Caregivers**

Family members should wait in the surgical family waiting area. The surgeon will talk with your family after surgery is completed. Please keep one family member in the waiting room or tell the staff that you are leaving the area so that you can be kept informed. A staff member will keep your family member updated on your progress. Please note that the entire surgical process takes approximately 3-5 hours before you will see your family.



Family members are an important part of recovery. However, keep in mind that the patient needs rest and a stress free environment as much as possible. Please keep in mind that other patients also need privacy and rest.

#### Main Goals Immediately Following Surgery

- Maintain a positive attitude.
- Pain Control We want you to be as comfortable as possible following your surgery. Make nursing staff aware if you are uncomfortable so they can help keep your pain well managed.



# PREPARING FOR SURGERY DAY OF SURGERY Cont'd

- Learn your exercises in physical therapy.
   The better you understand and perform your exercises the better your outcome will be.
- Make arrangements for a ride home.
- Make sure you understand your discharge instructions. Pay close attention to medication instructions. If you do not understand, please ask questions.

#### **Medications**

Medications will be given to:

- Control your pain and reduce swelling.
- Thin the blood and lower your risk of blood clots.
- Help with constipation and nausea. If you have nausea or upset stomach after surgery, please tell your nurse.
- Other medicines that you normally take may be restarted. Talk with the clinical care team about any needs or concerns.

#### **Diet/Nutrition**

Clear liquids and solid food will be started slowly following you surgery. Diet will be advanced to regular food.

#### **Bladder Catheters and Bathroom**

You may have a catheter to remove urine from the bladder during surgery. The catheter will remain in your bladder for a short time after surgery. This will be removed either in the operating room or your room after surgery.

Once the catheter is removed, please ask staff for assistance before getting out of bed. We want to help protect you from a fall or injury after surgery.

#### Wound Care

You will be taught how to take care of the incision as it heals. Discharge instructions will include how to care for your incision and dressing at home.

While rare, during surgery, a tube connected to a drain called a Hemovac<sup>®</sup> may have been placed to drain fluid from your wound. This allows the incision to heal. In most cases, the drain will be removed prior to going home.

Depending on the type of dressing you have after surgery, it may be changed daily.

#### **Breathing Exercises**

Cough and breathe deeply 10 times per hour to keep your lungs fully expanded. This is important to keep your lungs clear and avoid complications such as pneumonia. Bed rest, sleepiness, anesthesia and pain medications often keep you from taking normal, deep breaths.

#### **Physical Therapy**

Most patients will be up and walking the same day as surgery. A physical therapist (PT) will help you to stand up and walk using an assistive device. Getting up and active following surgery is vital to speeding up your recovery after joint replacement.



Recovery



NOTES

# POST SURGERY & RECOVERY Home Care Overview

### **Discharge Instructions**

The information in this booklet is a general post-operative care guide. Read and understand your discharge instructions before leaving the hospital or surgery center. If you do not understand any part of your discharge instructions ask questions of your care team.

#### **Care Overview**

The following areas are vital to healthy recovery and good outcomes. You will find much more detail in this section on each topic. Please contact your Provider's office with questions or concerns.

#### **Controlling Swelling**

- 3 Critical Steps:
   Ice Elevation Anti-inflammatories!
- Plan to lay down with your leg elevated higher than your heart for 30 minutes.
- While elevating your leg, use ice on the wound.
- Use the anti-inflammatory medications as the first course to reduce swelling.

#### **Incision Care**

- Your skin is your first line of defense against infection. Closely follow instructions regarding wound care.
- Refer also to your discharge instructions regarding incision care as directed by your surgeon.

#### **Medication and Pain Management**

- Follow specific instructions regarding medications.
- Take pain medication as needed.
   Use narcotic pain medication only if needed.
- Take your stool softener as directed and avoid constipation.
- Call the office if you have questions with how to manage your medications.

#### **Physical Therapy**

- Perform your physical therapy exercises 2-3 times daily.
- Start formal physical therapy.

In addition to all of the above, don't forget to maintain a positive attitude, get plenty of rest, eat healthy foods, and drink plenty of water!

# POST SURGERY & RECOVERY Controlling Swelling

### Ice, Elevation & Anti-Inflammatories

Leg swelling is a very common occurrence after joint replacement. The most common areas for swelling are the foot, ankle, knee and occasionally the thigh. Swelling may be an indication that you are overdoing your activities or sitting too long with your legs down.

Controlling your swelling will better allow healing at your surgical site, decrease pain, and increase mobility.

#### **Elastic Compression Stockings (AKA TED Hose)**

You may receive compression stockings postsurgery at the hospital or surgery center.

Wear your stockings to improve circulation, reduce the risk of blood clots from forming and to help with swelling.

- If you were given elastic support stockings after surgery, wear day and night as much as possible. Be sure to wear them at night when you are the least active.
- Remove stockings to shower. You may wash them with mild detergent and allow them to air dry.
- Your physician will provide instructions for how long you are required to wear compression hose. This is usually 30 days after surgery, or until your first post-op visit where you can discuss continued use with your provider.

**Ice** – Use ice on the wound 4 to 6 times a day for 20-30 minutes. Use a barrier such as a thin clean towel to protect your skin from the cold.

#### Home-Made Ice-Bag Recipe

- 1. Two freezer zip bags, one inside the other
- 2. Three parts water to one part 70% rubbing alcohol
- 3. Place mixed liquids in inner bag, freeze and wrap in a towel or cloth before placing on your skin

Bag of frozen vegetables secured inside another freezer zip bag works well. Refreeze after each use.

**Game Ready or Ice Machine** – you may purchase or rent an ice machine. These machines are not required but are a great option to assist in swelling and pain control. Speak to your surgeon's office for more information.

## POST SURGERY & RECOVERY Controlling Swelling Cont'd

**Elevation** – Elevation should be done often to keep your swelling under control. In the elevated position, excess fluid is drained from the leg by gravity. Drainage will not occur by sitting in a chair with the legs simply elevated on a stool, ottoman or coffee table.

- Legs must be higher than the level of your heart.
- Lay flat and elevate your legs by placing up to three staggered pillows under the calf/ankle area so that your "toes are higher than the nose."
- Ice and Elevation should be repeated 4 to 6 times for 30 minutes each day.
- Expect swelling, bruising and stiffness to increase over the first few weeks after surgery. These symptoms will slowly begin to decrease after several weeks of healing.
- DO NOT sit in a reclining chair. Knee precautions are not maintained while in a recliner, nor does the reclined position provide good circulation or reduce swelling.

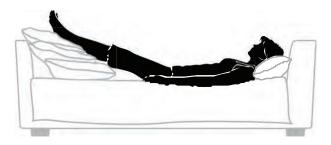
#### **Anti-Inflammatory Medication**

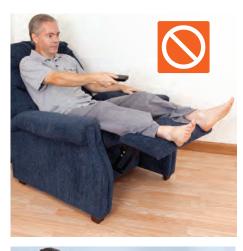
Use the anti-inflammatory medications as the first course to reduce swelling and pain around the clock. (See *Pain Management* page 24)

## 

If swelling is not managed with ice, elevation anti-inflammatory medications or does not improve after 24 hours call your surgeon's office.

## **Proper Elevation**







Your skin is your first line of defense against infection. It is important for your incision to heal as quickly as possible. Keep your incision clean, dry, and covered with a dry, sterile bandage for the duration of time that you are having any drainage following surgery. Also please refer to any discharge instructions regarding incision care as directed by your surgeon.

**Cleaning Incision** – Gently clean the incision with soap and water once a day, unless your surgeon gave different incision care instructions. Pat the incision dry.

- Do not immerse your incision in water.
- No tub baths, swimming pools, or hot tubs until your surgeon has evaluated your incision in the office.
- Do not apply alcohol, peroxide, Neosporin<sup>®</sup> or any lotions or creams to your incision, unless you are directed by your surgeon.

A small amount of blood tinged drainage from your incision is normal after surgery and should steadily decrease each day. If your drainage increases, persists or becomes foul smelling, please contact your surgeons clinic.

**Staples** – If your incision was closed with staples your surgeon's office will make arrangements for their removal (approx. 14 days after surgery).

**Bruising** – Bruising in the operative leg is very common after surgery. Sometimes bruising worsens before it improves. Gravity may pull bruising down to your foot and ankle

**Numbness** – You may feel some numbness in the skin around your incision. It is not uncommon after joint replacement to experience numbness or burning/prickling feelings as scar tissue heals. This typically improves gradually over the first several months to a year. **Warmth** – It is normal to feel warmth or heat in the incision area. Your operative knee may feel warmer than your non-operative knee for months following your surgery. This is part of the healing process and not alarming.

#### Showering

You may shower if your incision has no drainage or follow your specific discharge instructions. Shower with soap and water. Let the water run over the incision, then pat incision dry with a clean dry towel. Do not immerse your incision in water, such as tub bath, swimming pool or hot tub.



20 O orthopedia

## POST SURGERY & RECOVERY Medication & Pain Management

## **Existing Medications**

Review your discharge instructions. Pay close attention to what medications to resume after surgery. Changes to your pre-surgery medication may have occurred. If you have any questions, call the prescribing physician.

Review instructions regarding medications such as Mobic<sup>®</sup>, Motrin<sup>®</sup>, aspirin, vitamin E and fish oil.

Anesthesia and pain medications are both very constipating. We advised you to start taking a stool softener 2 to 3 days before your surgery to prevent constipation. Continue with stool softeners for the duration of time that you are taking pain medication.

Women should not resume hormone replacement or birth control medication for 30 days after surgery. If you have questions, contact your prescribing physician for alternative forms of birth control.

## **Medication Tracker**

Medications can only be effective when taken properly. Use the tool on the next page to track and remind you to take the correct dose of the right medication at the right time. (*Example shown below*)

Carefully review instructions you received from the hospital. Instructions will tell you:

- Which medications to start taking
- Changes to existing medications
- Which medications to stop taking

**CAUTION:** Follow physician medication instructions and read the pharmacy medication labels/ inserts for important dosing and side effect information.

Medications will vary based on the patient medical history, current medications, medication allergies, etc. Cross out any row for medications that do not apply to you.

#### Call your surgeon's office with questions at anytime.

#### **MEDICATION TRACKER EXAMPLE**

| NARCOTIC PAIN M                                 | EDIC/    | TION        | IS           |         |          |       |       |       |       |      |      |       |       |        |      |       |          |       |       |      |      |       |       |       |        |      |        |      |    |
|---|----------|-------------|--------------|---------|----------|-------|-------|-------|-------|------|------|-------|-------|--------|------|-------|----------|-------|-------|------|------|-------|-------|-------|--------|------|--------|------|----|
| Strong pain reliever us<br>acetaminophen (Lorce | t®, Lort | ab®, No     | orco®, V     | /icodiı | ۱®), (   | Эхусс | odone | e wit | h ace | tami | nopł | hen ( | Perco | ocet®, | Endo | ocet® | , Rox    | icet® | ) Hyd | Irom | opho | ne (C | Dilau | did®) | , Tran | nado | l (Ult | ram® | °) |
| Medication Name                                 | Dose     | How<br>Many | How<br>Often | Time    | AM<br>12 | 1     | 2     | 3     | 4     | 5    | 6    | 7     | 8     | 9      | 10   | 11    | PM<br>12 | 1     | 2     | 3    | 4    | 5     | 6     | 7     | 8      | 9    | 10     | 11   | 12 |
| Pain Pill                                       |          | 1           | Daily        |         |          |       |       |       |       |      |      | V     |       |        |      |       |          |       |       |      |      |       |       |       |        |      |        |      |    |
|   |          |             |              |         |          |       |       |       |       |      |      |       |       |        |      |       |          |       |       |      |      |       |       |       |        |      |        |      |    |

# **MEDICATION TRACKER**

| NARCOTIC PAIN MEDICATIO  | NS                    |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
|--|-----------------------|---------------------|---------------------|-----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|-----------------|----------------|-----------------|------------------|---------------|-----------------|---------------|-------------|---------------|--------------|-----------------|--------------|----------------|------------------|-------------|--------|------|------|
| Strong pain reliever used to treat m<br>acetaminophen (Lorcet®, Lortab®, N | ioderate<br>lorco®, \ | e to sev<br>/icodin | rere pa<br>I®) , Ox | in tha<br>ycodo | t may<br>ne w | r not<br>ith a | resp<br>cetar | ond v<br>ninoj | vell t<br>ohen | o oth<br>(Pero | er pa<br>cocet | ain m<br>:®, En | edica<br>docet | tion:<br>t®, Ro | s. Exa<br>oxicet | ampl<br>t®) H | es: 0)<br>ydror | (ycod<br>noph | lone<br>one | (Oxy<br>(Dila | Cont<br>udid | in®),<br>®), Tr | Hydr<br>amao | ocod<br>dol (l | lone v<br>Jltrai | with<br>n®) |        |      |      |
| Medication Name  | Dose                  | How<br>Many         | How<br>Often        | Time            | AM<br>12      | 1              | 2             | 3              | 4              | 5              | 6              | 7               | 8              | 9               | 10               | 11            | PM<br>12        | 1             | 2           | 3             | 4            | 5               | 6            | 7              | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                | _             |                |                |                |                | _               |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| NON-NARCOTIC PAIN MEDIC<br>Used to treat mild to moderate pain             |                       |                     | mizo tl             |                 | ofna          | rcoti          | c mo          | dicati         | ionc           | Evam           | nlo            | Acot            | min            | onho            | n (Tyl           | lonol         | ®)              |               |             | _             |              |                 |              | _              |                  |             |        |      |      |
| Medication Name  | Dose                  | How                 | How                 | Time            |               |                | Cine          | uicati         |                | LXall          | ipie.          | ALEIA           | 8              |                 |                  |               | )<br>PM<br>12   |               |             |               |              |                 |              |                |                  |             |        |      |      |
|  |                       | Many                | Often               |                 | 12            | 1              | 2             | 3              | 4              | 5              | 6              |                 | 8              | 9               | 10               | 11            | 12              |               | 2           | 3             | 4            | 5               | 6            |                | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| NON-STEROIDAL ANTI-INFL  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| Used to treat pain, redness, swelling                                      |                       | at (infl<br>How     |                     |                 |               | ples:          | ibup          | rofer          | ı, Adı         | vil®, A        | leve           | ®, Ce           | ebre           | (®              |                  |               | PM              |               |             |               |              |                 |              |                |                  |             |        |      |      |
| Medication Name  | Dose                  |                     | How<br>Often        |                 | 12            | 1              | 2             | 3              | 4              | 5              | 6              | 7               | 8              | 9               | 10               | 11            | РМ<br>12        | 1             | 2           | 3             | 4            | 5               | 6            | 7              | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 | _              |                 |                  |               |                 |               | _           |               |              |                 |              |                |                  |             | _      |      |      |
| <b>BLOOD THINNERS/ANTICOA</b>  | GULA                  | NTS                 |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        | ,    |      |
| Used to reduce the risk of blood   |                       | om for              | ming.               | Do n            | ot'th         | in' y          | our k         | olood          | l, bu          | t inte         | erfer          | e wit           | h yo           | ur al           | oility           | to f          | orm a           | a blo         | od c        | lot. E        | xam          | ples            | : asp        | oirin          | (Eco             | trin®)      | i, Coi | umad | lin, |
| Xarelto®, Heparin®, Warfarin®, P<br>Medication Name                        | lavix®<br>Dose        | How                 | How                 | Time            | AM            |                |               |                |                |                |                |                 |                |                 |                  |               | PM              |               |             |               |              |                 |              |                |                  |             |        |      |      |
| medication name  | Doze                  | Many                | Often               |                 | 12            | 1              | 2             | 3              | 4              | 5              | 6              | 7               | 8              | 9               | 10               | 11            | 12              | 1             | 2           | 3             | 4            | 5               | 6            | 7              | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| STOOL SOFTENERS/LAXATIV  | /ES                   |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| Used to reduce the risk of and to  | treat c               | onstip              |                     |                 |               | : Ser          | nna-S         | S®, N          | lirala         | ax®, (         | Colad          | ce®, l          | Milk           | of M            | agne             | esia®         | , Ma            | gnes          | ium         | Citra         | ate          |                 |              |                |                  |             |        |      |      |
| Medication Name  | Dose                  | How<br>Many         | How<br>Often        | Time            | AM<br>12      | 1              | 2             | 3              | 4              | 5              | 6              | 7               | 8              | 9               | 10               | 11            | PM<br>12        | 1             | 2           | 3             | 4            | 5               | 6            | 7              | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 | _            |                | _                |             |        |      |      |
| ANTI NAUCEA (ANTIEMETIC  | (C)                   |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| ANTI-NAUSEA (ANTIEMETIC<br>Used to prevent or lessen nausea                |                       | nitina              | cause               | d hv s          | ide e         | ffect          | s of i        | narco          | ntic r         | ain r          | nedi           | catio           | n an           | esth            | etics            | etc           | Fyai            | nnle          | ς∙ ∩r       | ndan          | setro        | n (7            | ofrar        | n) Pł          | hene             | raan        |        |      |      |
| Medication Name  | Dose                  | How                 | How                 | Time            |               |                |               |                | /iic p         |                |                |                 | in, un         |                 |                  | ,             | PM              | npic          | 5. 01       |               |              |                 |              |                |                  |             | 10     |      |      |
|  |                       | Many                | Often               |                 | 12            |                | 2             | 3              | 4              | 5              | 6              |                 | ð              | 9               | 10               | 11            | 12              |               | 2           | 5             | 4            | 3               | 6            |                | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| STOMACH/GASTRIC PROTEC   | TION                  |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| Works by decreasing the amount   | t of sto              |                     |                     |                 | -             | _              | ase t         | he ri          | sk of          | fblee          | eding          | g sto           | macł           | ו ulc           | ers v            | vhile         | taki            | ng n          | on st       | teroi         | dal a        | nti-            | infla        | mma            | atori            | es          |        |      |      |
| Medication Name  | Dose                  | How<br>Many         | How<br>Often        |                 | AM<br>12      | 1              | 2             | 3              | 4              | 5              | 6              | 7               | 8              | 9               | 10               | 11            | PM<br>12        | 1             | 2           | 3             | 4            | 5               | 6            | 7              | 8                | 9           | 10     | 11   | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 | _            |                | _                |             |        |      |      |
| SLEEP AIDS   |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| SLEEP AIDS<br>May improve sleep quality and in                             | nsomni                | a Fva               | mnle                | Gaha            | nent          | in (N          | eur           | ontin          | ®)             |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |
| Medication Name  | Dose                  | How                 | How                 | Time            | AM            |                |               |                |                |                | 6              |                 |                | 0               | 10-              | 14-           | PM              |               |             |               |              | 5.0             |              |                |                  |             | 10     | 10   | 12   |
|  |                       | Many                | Often               |                 | 12            |                | 2             | 3              | 4              | 5              | 6              |                 | 8              | 9               | 10               | 11            | 12              |               | 7           | 3             | 4            | 5               | 6            | 7              | 8                | 9           | 10     |      | 12   |
|  |                       |                     |                     |                 |               |                |               |                |                |                |                |                 |                |                 |                  |               |                 |               |             |               |              |                 |              |                |                  |             |        |      |      |

## **Medication & Pain Management Cont'd**

#### **Managing Side Affects**

#### **Nausea and Loss of Appetite**

Patients may experience nausea and loss of appetite associated with surgery. Nausea is not unusual and pain medications may play a part. It usually resolves after several days at home.

- Take medications with plenty of food and water. Do not take on an empty stomach.
- Drink plenty of fluids.
- If you are vomiting, please contact your surgeon's office.
- If you are not eating well, you may add a serving of a high protein diet supplement beverage such as Boost<sup>®</sup> or Ensure<sup>®</sup>. These can be purchased at most pharmacies and grocery stores.

#### Sleep

Difficulty sleeping at night is not unusual after total joint replacement. Many factors can affect the quality of sleep including narcotic use and discomfort due to pain or restricted leg movements. Overall, sleep deprivation after total joint replacement is manageable through pain management, and activity modification. If all else fails, it is advisable to call your primary care physician who can help you manage sleep disturbances during the post-operative period.

#### Depression

Mood changes following a major surgery are not unusual. Major surgery is a stress factor both physically and emotionally. Some medications may have depressive side effects as well. Lack of sleep also has an impact on your overall outlook. If you should experience symptoms of depression, reach out to your family physician for assistance.

#### Constipation

Anesthesia, narcotic pain medication, surgery and lack of movement will cause constipation even if you have never had a problem in the past. You should have a bowel movement 2-3 days after surgery. Using stool softener daily such as Senocot S<sup>®</sup> Surfak<sup>®</sup> or Docusate<sup>®</sup> will help to resume regular bowel habits. Drink plenty of fluids, preferably, 8 to 10 glasses of water or juice daily. Add prunes or prune juice to your daily fluid intake.

Even with a stool softener, constipation can still occur. If you experience constipation follow these steps to alleviate:

**Step 1:** Miralax<sup>®</sup> or Senocot-S<sup>®</sup> one to two tablets, twice daily. This make may take 24 to 48 hours for results. Continue taking until you return to your normal bowel movements and/or are no longer taking narcotic pain medications.

**Step 2:** If no bowel movement after 24 hours, add Milk of Magnesia<sup>®</sup> – (30 ml–60 ml once or twice a day.) Do not exceed 60 ml in a 24 hour period. Use if you have not had a bowel movement in 24-48 hours after discharge to home.

**Step 3:** If no results from Milk of Magnesia in 24 hours, use Magnesium Citrate. Magnesium Citrate is a strong over the counter laxative, take as directed on container. (1/2 to 1 bottle, 1-2 times a day not to exceed 1 bottle in a 24 hour period) Caution: Read the label to determine patients who can safely use Magnesium Citrate.

**Step 4:** Fleet<sup>®</sup> Enema – an over the counter product, use as directed on container.

If none of the steps above have been effective within 24 hours call your family physician or surgeon's office.

## **Medication & Pain Management Cont'd**

#### **Blood Thinner Medications**

A blood thinner will be prescribed after surgery. These medications are quite effective in reducing the incidence of serious blood clots. Your surgeon will determine the most appropriate medication for you, based on your medications and medical history. Carefully review discharge instructions for blood thinner medication and their doses.

Some of the most common blood thinners are: coated aspirin (Ecotrin<sup>®</sup>), Lovenox<sup>®</sup>, Xarelto<sup>®</sup> (Rivaroxaban), Coumadin<sup>®</sup> (Warfarin).

While taking a blood thinner, you are at a higher risk for bleeding. Protect yourself from small cuts, bumps and bruises.

#### **Pain Management**

We want you to be as comfortable as possible following your joint replacement surgery. Pain control can be achieved with ice, elevation, a balance of activity and rest, and combination of medications and therapies. Please remember there is much more involved with managing pain and swelling than medications alone. It is important that you keep your pain and swelling under good control. Pain and swelling control will allow you to fully participate in your daily exercise and physical therapy program.

Your surgeon will create a personalized painmanagement plan that best meets your individual needs. The plan may include both narcotic and nonnarcotic medications that can help to minimize pain. It is important to understand that opioid medication doesn't work for every person or type of pain. While opioids may reduce your pain, they are unlikely to take it away completely.

#### **Non-Narcotic Medications**

Non-narcotic medications are the preferred choice of pain medications following surgery. Non-narcotic pain medications are non-addictive and have fewer side effects than narcotic pain medication. Be sure to utilize non-narcotic pain medications consistently to control your postoperative pain. Narcotic pain medications may be taken in addition to your non-narcotic regimen, if your non-narcotic medications are not controlling your pain.

Certain health conditions may influence your ability to take these medications. Tell your physician if you have a history of liver or kidney disease, stomach ulcers or stomach upset when taking non-steroidal anti-inflammatories. Always take medications with food and plenty of water. Never take pain medication on an empty stomach.

#### Over the Counter (OTC) – Two basic types of pain relievers:

#### Acetaminophen (Tylenol®) - used to treat pain

Some prescription narcotic pain medications and some over-the-counter medications can contain acetaminophen. Please keep this in mind in order to avoid taking more than the maximal daily recommended amount of acetaminophen.

Maximum dosage – 3000mg per day. Taking a higher dose will not provide additional relief and is dangerous.

# Non-Steroidal Anti-Inflammatories (NSAIDS) – used to treat pain and swelling

Maximum dosage of over the counter NSAIDS

- Advil<sup>®</sup> (ibuprofen) 2400mg (4 doses of 600mg) in 24 hrs.
- Aleve<sup>®</sup> (Naprosyn<sup>®</sup>, naproxen, Midol<sup>®</sup>), 1000mg (2 doses of 500mg) in 24 hrs.

## Medication & Pain Management Cont'd

DO NOT take over the counter NSAIDs in addition to prescribed NSAIDs. Please consult your surgeon before adding an NSAID to your pain medication regimen.

- Blood thinners may prevent you from taking NSAIDs following surgery.
- NSAIDs include drugs like Ibuprofen (Motrin<sup>®</sup>/Advil<sup>®</sup>),(Celebrex<sup>®</sup>) Celecoxib<sup>®</sup>, Mobic<sup>®</sup> (Meloxicam), Aleve<sup>®</sup> (Naprosyn<sup>®</sup>, Naproxen, Midol<sup>®</sup>), Aspirin (Ecotrin<sup>®</sup>), Toradol<sup>®</sup> (Ketorolac) and Diclofenac (Voltaren<sup>®</sup>).

#### **Narcotic Pain Medications**

When taking a narcotic pain medication, it is important to take the smallest amount of opioid medication for the shortest amount of time during your recovery. As your pain decreases so will the amount of pain medication you use. Non-narcotic medications can be taken on a consistent basis to help limit the use of narcotic pain medications.

It is important that you call for pain medication refills at least 48 hours before you will run out of pain medication. Prescriptions may take up to 48 hours to be filled.

Most patients are able to minimize or replace narcotic pain medications with non-narcotic medications during the first 2 to 6 weeks after surgery.

Medication should not be taken in greater quantity or frequency than prescribed. Unauthorized changes may result in running out of medication early. Early refills will not be authorized. Your physician is not responsible for lost or stolen medications or prescriptions. If you are noncompliant with narcotic medication instructions, your provider may discontinue the use of controlled substances and reserve the right to discontinue prescribing pain medication. We encourage you to begin reducing the amount of narcotics as soon as possible to minimize potential side effects of narcotic use. Side effects include:

- Constipation
- Nausea and vomiting
- Drowsiness
- Dizziness
- Confusion
- Developing tolerance to the drug
- Narcotic addiction
- Potential for overdose
- Risk of withdrawal

While taking narcotics do not operate machinery, drive a vehicle or drink alcohol. Narcotics are pain medications that are legally controlled by law. Due to the addictive nature of narcotics, Orthopedic ONE physicians strictly limit their use in accordance with Local, State and Federal guidelines

#### **Sleep and Narcotics**

If you have trouble sleeping through the night, and you take narcotic pain medication before bed, it may be causing you to wake up. Narcotics may allow you to get to sleep but do not keep you asleep. Narcotics interfere with deep sleep (REM sleep). Do not use narcotics as a sleep aid.

Ask your family physician to recommend or prescribe a sleep-aid medication. If you use any of these medications and notice confusion or inability to arouse easily, discontinue use of these medications and call your surgeon or family practice physician.

If you have been taking narcotics for an extended period it may be unsafe to stop taking these medications abruptly. Consult your prescribing physician if you have concerns regarding withdrawal.

## **Medication & Pain Management Cont'd**

#### **Opioid Prescriptions in Ohio**

The State Medical Board of Ohio has adopted new rules for prescribing and dispensing opioids (narcotics), for the treatment of both acute and chronic pain. Physicians in the state of Ohio are required by law to strictly follow these mandates. These new rules may impact how your provider prescribes pain medication.

Regulations that may affect you include:

- For adults, not more than a 7 day supply. In most cases this is sufficient.
- Extended-release or long-acting opioid analgesics cannot be prescribe for acute pain.
- Controlled substance prescriptions can now be transmitted electronically to a pharmacy. Prescriptions can't be faxed, phoned in or mailed. If not sent electronically, Someone is required to pick up paper prescription from our office.
- Prescriptions cannot include refills. Should you require additional medication, a new prescription must be written.
- Opioids can only be prescribed for a short period of time following surgery.

The complete opioid amended rules for acute and chronic pain can be found at:

www.med.ohio.gov/LawsRules/ NewlyAdoptedandProposedRules.aspx

#### **Storing Medications Safely**

Keep prescription medications in their original container or packaging. The original packaging has useful information such as the person prescribed the medication, instructions for use, expiration date and pharmacy contact information. Store your medicine out of reach and eyesight of others. Use a cabinet with a child latch or lock to avoid access by children, family, friends, or house guests. Follow any special storage instructions given to you by your pharmacist. Store your medicines in a cool, dry place. Heat, air, light, and moisture may damage your medicine. Avoid storing in bathroom medicine cabinets or near showers, sinks, windows or appliances. Open medications on a counter or table, where spilled medication will remain dry, safe and easily retrievable. Do not share medication with anyone else. Prescription medications are prescribed by medical professionals based on a person's individual medical condition and history.

#### Proper Disposal of Unused Medications

# Medication Take-Back Collection Sites – preferred method

- Located at some law enforcement facilities or retail pharmacies
- Check list at https://apps.DEAdiversion.usdoj. gov/pubdispsearch

# Disposal In Household Trash – when Take-Back sites are not available

Follow these simple steps to dispose of medicines in the household trash.

- Mix medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, cat litter, or used coffee grounds.
- Place the mixture in a container such as a sealed plastic bag.
- Throw the container in your household trash.

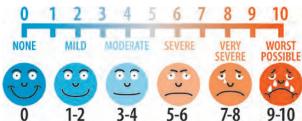
## **Pain Management and the Pain Scale**

## How Would You Rate Your Pain?

To help better understand how to rate your pain, use the common descriptions of the pain scale shown above.

Understanding these guides will ensure you and your care team are on the same page in order to treat your pain with the right medications, at the right time, for the right level of pain.

## The Pain Scale



# Make sure you and your caregivers have the same understanding of how to rate pain!

### **No Pain**

0 Pain Free

### **Mild Pain**

Nagging, annoying, but doesn't really interfere with daily living activities. May be activity related. Treat with non narcotic pain management, rest, ice, elevation, and distractions such as socializing, TV, music, reading.

- Pain is very mild, barely noticeable. Most of the time you don't think about it. Annoying and may have occasional stronger twinges. May be activity related.
- 2 Notice pain but does not interfere with activities.
- 3 Pain is noticeable and distracting, however, you manage to maintain your activities of daily living without too much trouble.

## **Moderate Pain**

Interferes significantly with daily living activities. Treat with narcotic and non narcotic pain management, rest, ice, elevation, and distractions such as socializing, TV, music, reading.

- 4 Moderate pain. I am aware of the pain but I can do most activities. If you are deeply involved in an activity such as watching a movie or reading a book, it can be ignored for a period of time, but is still distracting.
- 5 Moderately strong pain. It can't be ignored for more than a few minutes, but with effort you still can manage to work or participate in some social activities.
- 6 Moderately strong pain that interferes with normal daily activities. Difficulty concentrating. Hard to watch TV or read a book without being distracted by the pain.

### **Severe Pain**

Disabling; unable to perform daily living activities. Continue to treat with narcotic and non narcotic pain management, rest, ice, elevation, and distractions such as socializing, TV, music, reading.

- 7 Severe pain that dominates your senses making it difficult to think about anything else. Significantly limits your ability to perform normal daily activities or maintain social relationships. Interferes with sleep.
- 8 Intense pain. Physical activity is severely limited. Talking and listening are difficult and require great effort.
- 9 Excruciating pain. Barely able to talk. Crying out and/or moaning uncontrollably.
- **10** Unspeakable pain. You can't move due to the pain. Bedridden and possibly incoherence of thought and speech.

# POST SURGERY & RECOVERY When to Contact Your Physician

## When to Call the Surgeon

- Drainage or bleeding from the incision (a small amount of clear drainage is normal immediately following surgery)
- Edges of the incision are separating
- Increased redness, pain or swelling on or around the incision
- Pain unrelieved by medication, ice, elevation, and rest
- Sudden pain with inability to stand on the operative leg
- Fever, oral temperature 101° F or greater
- Swelling that does not improve over a 24-48 hour period with ice, elevation, and rest
- Persistent nausea or vomiting

# When to Call Your Primary Care Physician

- Inability to urinate for more than 8 hours
- Fainting or dizziness or severe headache that does not go away
- Constipation, if none of the steps provided in the Constipation Section on page 23 have been effective within 24 hours
- Shortness of breath or chest pain could indicate a serious medical emergency. Call 911 and/or go to the nearest emergency room



# POST SURGERY & RECOVERY Physical Activity and Exercise

## **Physical Therapy**

Your dedication to physical therapy is a very important piece of your recovery and a successful outcome. You will work with a physical therapist 2-3 times each week and complete your physical therapy exercises on our own 2-3 times each day.

You should begin outpatient therapy, at the location of your choice, as soon as you are able. If you have transportation, you may begin outpatient physical therapy just days after your surgery. *Please see the map at the front of this book for Orthopedic ONE Physical Therapy locations.* 

If home physical therapy is necessary, it is most often limited to 4 to 6 home therapy visits before transitioning to the outpatient setting. The home care agency will call you within 24-48 hours to schedule their first visit.

## **Exercises and Activity**

Follow the physical therapist's instructions for exercises and refer to the exercises in the next section for additional instructions. Perform exercises 2-3 times per day.

Exercise and continue to increase your activity as your stamina allows. Allow pain and swelling should be your guide. If you over do it, you will cause swelling and pain. Increase activity gradual so you can see what you will tolerate.

Break up your activity during the day with sitting, lying down and walking.

Avoid sitting at any one time longer than 45 minutes.

If you normally sleep on the second level of your home, it is best to make one trip up and down daily. Try using stairs as little as possible the first week after surgery.



Do your ankle pumps ten times every hour while awake.

## Walking

You should take a short walk 4 to 6 times each day for 5 to 10 minutes each time. This can be simply walking around your home. Walking distance and time should be increased slightly each day, as tolerated. Too much walking may increase your swelling so monitor your symptoms and swelling closely. Use your walker and progress to a cane as your confidence increases. Use one of these aids until you can walk without a limp.



# POST SURGERY & RECOVERY Post-Operative Expectations

### **Second Week Goals**

- Swelling and pain should be improving
- Continue with physical therapy
- Transition to outpatient physical therapy, if your therapy was started in the home
- Avoid daytime naps, to improve sleep at night
- Increase activity as tolerated
- Use the non-narcotic medications as the first course of pain management
- Use narcotic pain medication only as needed

## **Third Week Goals**

- Be diligent with your exercises and therapy appointments
- Bruising, swelling and pain should be improving
- With decrease in pain and swelling, you should also decrease the amount of narcotic pain medication and use only as needed
- Use the non-narcotic medications as the first course of pain management around the clock
- Take longer walks (inside or outside)
- Become more active with normal activities

### **Ongoing Recovery and Followup**

You will be seen in your surgeon's office following surgery for post-operative evaluation. Please make sure you have a post-operative appointment scheduled with your surgeon.

Returning to work varies from patient to patient and depends on the intensity of your work.

# Throughout your post-operative period, please continue:

- Perform exercises 2-3 times per day
- Ice/Elevate your leg higher than your heart
- Avoid sitting for longer than 45 minutes to 1 hour at a time
- Wear your elastic support stockings as directed
- Continue to follow constipation instructions if you are taking narcotics or have not returned to your normal bowel habits
- Get plenty of rest, eat healthy foods, and drink plenty of water
- Be diligent with your exercises and therapy appointments

Following your post-operative period, your surgeon will provide you with a schedule for future follow up appointments.

If you are doing well and have no concerns regarding your progress, your surgeon will typically see you, at a minimum, at the end of one year and five years after your surgery date.

Remember that it will take 18–24 months for maximum recovery after knee replacement surgery.



PHYSICAL ACTIVITY AND EXERCISE

# PHYSICAL ACTIVITY AND EXERCISE



# NOTES

The following exercises are to be performed pre-operatively in preparation for your Total Joint Replacement. The same set of exercises are to be performed post-operatively to maximize your potential and improve your outcomes.

Some discomfort is to be expected. If pain increases significantly stop the exercise. All exercises should be done as tolerated to increase strength. Overdoing exercises may seem like progress while you are doing them, but the next day you may find you have an increase in pain, swelling, stiffness and soreness.

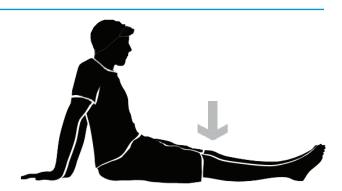
The first three exercises help promote blood circulation and reduce the risk of blood clot formation. They should be performed in bed or while in the seated position. Perform 10-20 repetitions per waking hour.

#### **Ankle Pumps Set**

1. Move your feet up and down at the ankle in a comfortable manner and comfortable speed.

#### **Quadricep Set**

- 1. Sit or lie on your back with your legs straight.
- 2. Push the back of your knee down into the bed or the surface you are sitting on.
- 3. Simultaneously tighten the front thigh muscle.
- 4. Hold for 5 seconds, then relax muscle.



#### **Gluteal Set**

- 1. Tighten and squeeze buttock muscles together.
- 2. Hold for 5 seconds, then relax the buttock muscle.

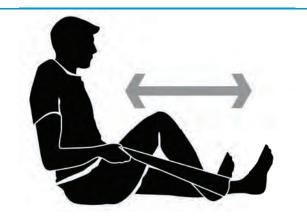


The following set of exercises are to be performed 2-3x a day. These exercises are intended to gain Knee ROM. Some discomfort is to be expected but needs to be tolerable.

#### **Knee Flexion Stretch**

Use a pillow case or plastic bag under your foot to reduce friction and a belt, scarf, or rope for assistance.

- Sitting at the edge of a chair or lying on your back with your legs straight bend the operative knee towards your buttocks keeping the heel on the surface.
- 2. Bend the knee as far as you are able to tolerate to gain ROM.
- 3. Hold for 10-15 seconds and return the leg to the starting position, perform 5-10 repetitions.



#### **Knee Extension Stretch**

You will need a small towel roll for this exercise.

- Start by lying flat on your back with your legs straight on the surface and place a small towel roll under the ankle resting the heel of the operative leg on the towel roll.
- 2. Knee should be unsupported and attempt to relax to allow the knee to straighten passively.
- 3. Maintain this position for two minutes to start and progress the time upwards of 10 minutes, perform 2-3 x a day.

\* Alternatively, this stretch can be performed in the seated position between two chairs with the operative heel supported at the edge of an opposing chair.



The following set of exercises are intended for strength gains and are to be performed 2-3x a day. Begin with 5-10 repetitions and slowly progress towards 20-25 repetitions over the course of a few weeks or unless told otherwise by your individual physician or therapist.

#### **Chair Push Up**

This exercise is intended to strengthen the upper body in preparation for use with the walker, transfers and bed mobility.

- 1. Sit on the edge of the chair, feet flat on the floor, hands supported on the chair or arms of the chair.
- 2. Slowly push up with arms and straighten elbows so your bottom comes off chair .
- 3. Slowly bend elbows and return to the start position.

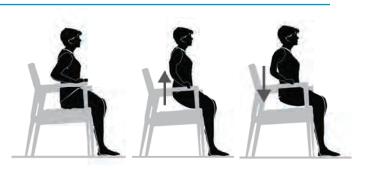
#### **Short-Arc Knee Extension**

You will need a small towel roll for this exercise.

- Start by lying on your back with your legs straight on the surface and place the small towel roll under the operative knee.
- 2. Tighten the front thigh muscle slowly extending knee as if performing a kicking motion.
- 3. Hold for 5 seconds and slowly return to the start position.
- 4. Repeat with the opposite leg.

#### Long-Arc Knee Extension

- 1. Start by sitting at the edge of your surface.
- 2. Tighten the front thigh muscle slowly extending knee as if performing a kicking motion.
- 3. Hold for 5 seconds and slowly return to the start position.
- 4. Repeat with the opposite leg.







#### **Lying Hip Abduction**

*Use a pillow case or plastic bag under your foot to reduce friction.* 

- Start by lying flat on your back with your legs straight on the surface and toes pointed towards the ceiling.
- 2. Move the leg out to side, keeping knees straight as if performing a snow angel.
- 3. Return to start position.
- 4. Repeat with the opposite leg.



- 1. Start by lying flat on your back with your legs straight on the surface.
- Bend non operative knee with foot flat on surface and operative leg extended straight out.
- Tighten the front thigh muscle of the operative leg and lift the leg slowly while maintaining a straight leg to the height of the non-operative knee.
- 4. Return the leg to the start position by slowly lowering leg while continuing to maintain a straight leg.
- 5. Repeat with the opposite leg.

#### **Calf Stretch (Runner Stretch)**

- 1. Face the wall with your arms straight and hands against the wall.
- 2. Place the non-surgical leg a few feet in front of the operative leg with toes pointed forward.
- 3. Bend the front non-surgical knee while keeping back surgical leg straight and both heels on the floor.
- 4. Lean forward at your waist till a gentle stretch is felt up the backside of the lower leg and hold for 30 seconds.
- 5. Repeat for 2-3 repetitions.







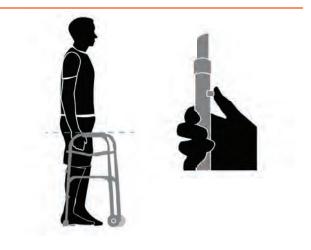
## PHYSICAL ACTIVITY AND EXERCISE

## Activities

#### **Adjusting Your Walker**

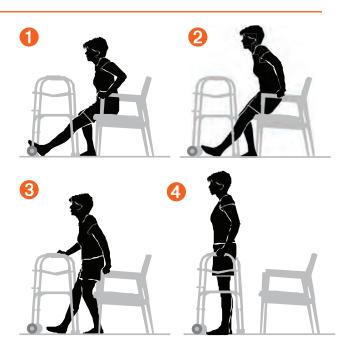
to ensure it is appropriately sized for your height

- 1. Stand inside your walker maintaining good upright posture.
- 2. Allow arms to rest by your sides.
- 3. The break in your wrist should be aligned with the very top of the walker to ensure proper height.
- 4. If the walker does not match said alignment adjust the push pins on all 4 legs up or down till appropriately sized.



#### Sit to Standing with a Walker

- Slide your hips forward to the edge of the chair, bed or toilet seat. Keep operative leg straight outstretched in front of you and your non-operative leg with knee bent beneath you.
- 2. Use your arms and hands to push down on the edge of the surface to assist in pushing yourself up.
- 3. Move your hands to the hand grips on the walker once in the fully upright position.
- 4. Do not pull yourself up with the walker as it is not secure and may cause you to fall backwards.
- 5. Make sure you are steady and balanced before taking a step.



#### **Stand To Sit With a Walker**

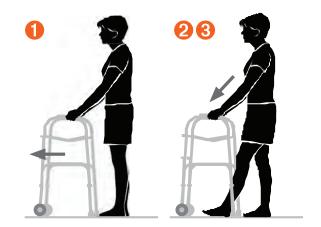
- 1. Slowly back up to the chair, bed, toilet, or surface until you feel the surface against the back of your legs.
- 2. Move your hands from the walker and place both hands on the surface while sliding your operative leg forward and extending it in front of you.
- 3. Slowly lower yourself onto the surface with assistance from your arms and non-surgical leg keeping your surgical leg outstretched until you reach the fully seated position.





#### **Walking With a Walker**

- 1. Slide the wheeled walker in front of you at a comfortable distance maintaining an upright position.
- 2. Begin by stepping forward with the surgical leg.
- 3. Bear weight through your arms on the walker as necessary to unload the surgical leg and advance the non-operative leg through.
- As you get more comfortable with the walker and pain levels decrease, keep the walker moving as if you are pushing a grocery cart bearing weight through your arms as necessary to unload the surgical leg.





## PHYSICAL ACTIVITY AND EXERCISE

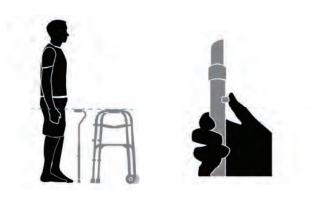
## Activities

#### **Adjusting Your Cane**

to ensure it is appropriately sized for your height

- 1. Hold your cane alongside of the walker you have already sized correctly
- 2. The top of your cane should be adjusted to the same height as the height of your walker

If you do not have a walker the cane should be aligned with the break in your wrist with your arms resting by your side.

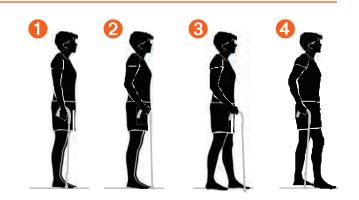


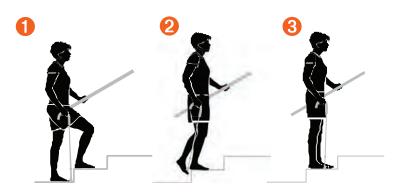
#### **Walking With a Cane**

- 1. Place the cane in the hand along the side of your non-operative leg.
- 2. Begin by stepping forward with your operative leg and the cane simultaneously, keeping the two in parallel alignment.
- 3. Next, step forward with your non-operative leg bringing it ahead of the operative leg and cane. Bear weight through the cane to unload the operative leg as needed.

#### **Walking Upstairs With a Cane**

- 1. Grasp the hand rail with your free hand.
- 2. Begin by raising your non-operative leg up to the first step.
- 3. Bring your operative leg and cane together up to the same step, keeping your leg and cane in parallel alignment.





#### **Walking Down Stairs With a Cane**

- 1. Place the cane in the hand opposite the handrail and grasp the hand rail with your free hand.
- 2. Begin by advancing the cane and the operative leg to the step below.
- 3. Bring your non-operative leg to the same step.

If your stairs don't have a handrail talk to your therapist before you leave for home. They will give you one on one instructions.

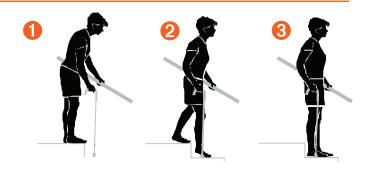
#### Getting Into and Out of Bathtub With Assistance to Shower

Reminder: DO NOT take a tub bath, swim, or use a hot tub until your surgeon clears you to put your incision into water.

- 1. Getting Into Bath tub: Place the shower chair/ bench in the tub, if you feel it necessary, in case you fatigue and require a rest.
- 2. Stand facing sideways to the tub/shower and place both hands on the open wall for safety and balance.
- Step into the tub with the leg nearest to the tub. To allow for clearance of a restricted surgical knee lean backwards at your waist and lift the leg forward from the hip to allow adequate clearance of leg without excessively flexing knee and enter the tub.

To accomplish this, it makes no difference whether the operative or non-operative leg enters the tub first.

Have walker readily available near the tub for proper support and safety once exiting. To exit the tub, perform the same action in reverse.









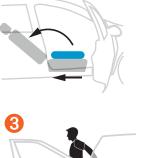
#### **Getting Into and Out of a Car**

- 1. Adjust passenger side seat to be reclined and pushed back as far as possible. (Place cushion on seat if necessary, for a car low to the ground.)
- 2. Stand with your back toward car and slowly back up to the seat until you feel it against the back of your legs.
- 3. Slide your operative leg slightly ahead of you and reach back with your hands for the car seat.
- 4. Slowly lower yourself onto the seat keeping trunk upright and operative leg outstretched in front you.
- 5. Use the non-surgical leg to assist in sliding your pelvis up onto the reclined portion of the seat. With assistance if necessary, lift surgical leg into car while body swivels with it. Then bring non-surgical leg into car. You do not need to stay reclined for your drive home
- 6. Reverse the steps to get out of car after first adjusting the seat to the fully reclined and pushed back position.

#### **Getting Into Bed**

- 1. Slowly back up to the bed until you feel the surface against the back of your legs.
- 2. Move your hands from the walker and place both hands on the surface while sliding your operative leg forward and extending it in front of you.
- 3. Slowly lower yourself onto the surface with assistance from your arms and non-surgical leg keeping your surgical leg outstretched until you reach the fully seated position.
- 4. Carefully scoot yourself backward one side at a time until both knees are supported by the bed.
- 5. Once both knees are supported slowly slide your legs one at a time as if you are performing a "snow angel" until you are centered on the bed.





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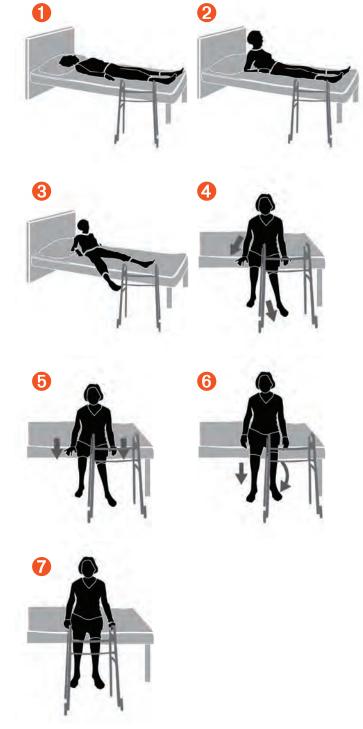






#### **Getting Out of Bed**

- Start from a lying position Use your upper body and arms to walk your upper body to a long sitting position. Resting on your forearms.
- 2. Slowly slide your legs, one at a time as if you are performing a "snow angel", until you are perpendicular to the surface and facing the side of the bed.
- Carefully scoot yourself forward one side at time until both knees are no longer supported by the bed and you are sitting upright at the edge of the bed.
- 4. Slide your hips forward to the edge of the bed. Keep operative leg straight outstretched in front of you and your non-operative leg with knee bent beneath you.
- 5. Use your arms and hands to push down on the edge of the surface to assist in pushing yourself up.
- 6. Shift your weight onto your non-operative leg bringing operative leg back and into alignment as you fully straighten your non-operative leg.
- 7. Move your hands to the hand grips on the walker once in the fully upright position.



PREVENTING COMPLICATIONS

PREVENTING COMPLICATIONS



## NOTES

All surgery involves a certain amount of stress on your body. Assessing risk and comparing it to potential benefits allows the patient and their family to make an informed and intelligent decision regarding the knee replacement surgery.

During your surgery stay, your surgery care team will continue to monitor your overall health to ensure a safe discharge to home. During your office visit, you and your surgeon will discuss the location of your surgery and post-operative discharge plans.

Your surgeon will take steps to be sure that you can safely undergo the operation and may request that you obtain "clearance for surgery" from another doctor. The term "clearance" can be misleading. No one can guarantee you won't have any complications. The evaluation is more like a risk assessment.

After reviewing the following information, you will learn about the signs and symptoms of potential surgical complications so that they can be caught early and addressed quickly.

#### Infection

A surgical site infection can develop at the incision site or inside the body around the implant. These infections can develop at any time from 2 to 3 days after surgery until the incision is well healed (usually two to three weeks after the surgery). Infection continues to be a risk for the life of the implant. Surgical site infections are uncommon but very serious. The risk of infection around the time of operation is less than 1%.

Orthopedic ONE surgeons take the risk of infection very seriously. By being an active participant in your care, you and your surgical team will work together to significantly reduce your risk of a surgical site infection.

#### **Infection Prevention**

Preventing infection starts even before your surgery. In the preoperative area at the surgery center, your nurse will help you clean your body with a Chlorahexidine no-rinse, antibacterial, disposable wash cloth. You will receive a dose of antibiotics right before the start of your procedure to minimize the risk of infection. The joint implants (prosthesis) and instruments used in the operation are sterile. Your surgical team will wear special operating room protective wear and the operating room is specially designed to be extra clean. Everyone on your care team will participate in proper hand washing to prevent the spread of infection.

#### Steps You Can Take to Reduce Your Risk of Infection:

- Notify your surgeon immediately if you have an open wound, urinary tract infection or dental infection. An infection in any other part of your body (lungs, kidneys, mouth, and skin) could spread to your new joint. Your surgery may be delayed/cancelled until the infection has been treated.
- 2. Use an antibacterial soap to shower the night before surgery and again the morning of surgery.
- 3. Proper hand washing is very important to prevent the spread of infection. Before touching your incision or changing your dressing, wash your hands using soap and warm water. When washing your hands, rub them together for at least 15 seconds or as long as it takes to sing the Happy Birthday<sup>™</sup> song twice.
- 4. Dental Care Have your teeth cleaned 30 days prior to surgery and make sure you do not have any cavities.
- 5. Plan to go home after surgery in the care of family or friends.

#### **Infection Prevention After Surgery**

- 1. Keep your incision clean, dry and covered with dry, sterile bandage.
- 2. Wash your hands frequently and ask your family and friends to do the same.
- 3. Do not smoke.
- 4. If you are diabetic, controlling your glucose is important for wound healing.
- 5. Controlling your swelling with aid wound healing.
- 6. You will require protection against infection for as long as your implant is in place.
- 7. Your surgeon recommends that you not have any non-emergent or unnecessary procedures, including dental procedures, colonoscopy, or cataract surgery for three months (90 days) after surgery. If you must schedule a procedure, call to inform your surgeon prior to the procedure.
- 8. It is your responsibility as the patient to inform all your physicians, including your family doctor, dentist, about your joint replacement.
- 9. You will take preventative antibiotics before any dental procedures following your joint replacement surgery. We trust your dentist/ physician to prescribe antibiotics prior to your procedures. If for some reason your dentist/ physician does not feel comfortable to write the prescription, please call your surgeon's office.

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

Deep Vein Thrombosis (DVT) is a condition that can occur following surgery in which blood clots form when the blood flow slows down, most commonly in the legs. This can be dangerous if the clot travels to the lungs, causing pulmonary embolus (PE). Pulmonary embolus can cause significant breathing issues and, in some cases, may be fatal.

#### This occurrence affects a small number of patients undergoing elective surgery. Risk Factors For DVT Include:

- Prior blood clot, DVT or PE
- Smoking
- Immobility
- Travel with prolonged sitting
- Birth control pills or hormone replacement
- Obesity
- Cancer
- Heart failure
- Certain hereditary clotting disorders

If you have one or more of the risks above, it increases your risk of blood clots. It is important to manage the risks that are modifiable.

#### **Reducing the Risk of Blood Clots**

You and your surgeon will take several steps to help reduce the risk of this complication. Steps include:

- Taking the blood thinner medication prescribed for you.
- If you were given elastic support stockings after surgery, wear day and night as much as possible. Be sure to wear them at night when you are the least active.
- Walking and doing your ankle pumps and leg exercises.
- Getting up to walk every 45 minutes during the day.
- Avoid sitting for any long periods of time.

#### **Elastic Compression Stockings**

Your physician will provide instructions for how long you are required to wear compression hose to reduce your risk of DVT. Wear your stockings to improve circulation, reduce the risk of blood clots from forming and help with swelling.

Blood clots may still form even if you take with these precautions. Contact our office if you experience any of the following DVT signs or symptoms:

- Calf and or leg swelling which does not decrease after 24–48 hours of rest, ice and elevation
- Tender or painful, swollen or red areas that are warm to the touch in the calf, lower leg or groin

If there is any suspicion that you have developed a clot, your surgeon may schedule you for a non-invasive test called "venous ultrasound" or "Doppler" that uses sound waves to produce images of the veins in your leg to check for blood clots.

#### **Bleeding**

Your surgeon will use a number of measures to minimize blood loss and therefore lessen the possibility that you need a blood transfusion. However, patient undergoing knee replacement surgery may require a blood transfusion. The decision for you to receive a blood transfusion is based on the results of your blood tests during or after surgery. Your surgeon will answer any additional questions you may have regarding blood transfusions.

Please notify our office if you have a religious belief that does not allow you to have a blood transfusion.

#### Constipation

Anesthesia, narcotic pain medication, surgery and lack of movement will cause constipation even if you have never had a problem in the past. You should have a bowel movement 2-3 days after surgery. Using stool softener daily such as Senocot S<sup>®</sup> Surfak<sup>®</sup> or Docusate<sup>®</sup> will help to resume regular bowel habits. Drink plenty of fluids, preferably, 8 to 10 glasses of water or juice daily. Add prunes or prune juice to your daily fluid intake.

Even with a stool softener, constipation can still occur. If you experience constipation follow these steps to alleviate:

**Step 1:** Miralax<sup>®</sup> or Senocot-S<sup>®</sup> one to two tablets, twice daily. This make may take 24 to 48 hours for results. Continue taking until you return to your normal bowel movements and/or are no longer taking narcotic pain medications.

**Step 2:** If no bowel movement after 24 hours, add Milk of Magnesia<sup>®</sup> – (30 ml–60 ml once or twice a day.) Do not exceed 60 ml in a 24 hour period. Use if you have not had a bowel movement in 24-48 hours after discharge to home.

**Step 3:** If no results from Milk of Magnesia in 24 hours, use Magnesium Citrate. Magnesium Citrate is a strong over the counter laxative, take as directed on container. (1/2 to 1 bottle, 1-2 times a day not to exceed 1 bottle in a 24 hour period) Caution: Read the label to determine patients who can safely use Magnesium Citrate.

**Step 4:** Fleet<sup>®</sup> Enema – an over the counter product, use as directed on container.

If none of the steps above have been effective within 24 hours call your family physician or surgeon's office.

#### Stiffness

Stiffness may occur following knee replacement surgery. It may resolve with intensive physical therapy. If stiffness and lack of motion persist through physical therapy, a manipulation of the knee under anesthesia may be required. The knee is manipulated to break up scar tissue and allow the knee to flex further.

#### **Preventing Stiffness**

How much your knee bends and how straight it can go, are in part, determined by your ability to rehabilitate your knee after surgery. Your surgeon will make sure that the knee is straight before you leave the operating room and will establish goals for how much flexion can be anticipated after surgery. On average patients are able to flex their knee 110 to 120 degrees of motion after surgery.

Your dedication to completing your physical therapy exercises and strengthening play a major role in preventing stiffness. Exercises should be done consistently and gently. Your postoperative therapy goal should include full extension of the knee by two weeks and 90+ degrees of flexion. In the early postoperative period, you will need to work on getting the leg straight. Bending the knee will progressively become easier over the first several weeks. By 4-6 weeks from your surgery, most patients are able to bend the knee past 90 degrees.

#### **Nerve Injury**

Although very rare, an injury to the nerve of the leg can occur. This may cause loss of function of the leg, areas of numbness, or require a brace. The risk of injury is less than 1%. Nerves or blood vessels that may become injured generally heal and improve with time.

#### Bone Fracture, Ligament or Tendon injury

Bone fracture of the thigh bone (femur) can occur at the time of surgery. Underlying condition of your bone may contribute to the risk of a fracture at the time of surgery. For example, a person with a significant osteoporosis may have a higher risk.

**ADDITIONAL INFORMATION** 

# ADDITIONAL INFORMATION



NOTES

#### **Tobacco and Wound Healing**

Tobacco hurts the function of cells in the body that help wounds to heal and fight infection. Smoking for even 10 minutes lowers the amount of oxygen in the body for up to one hour. The more tobacco is used, the less oxygen is available in the body for health and healing.

Wound dressings absorb cigarette smoke. This makes it harder for wounds to heal after surgery.

#### **Quitting Tobacco**

If you need help quitting tobacco, use these tips as part of your plan to quit:

- 1. Set a quit date This is the day you officially stop using tobacco.
- 2. Get rid of tobacco products such as lighters, ash trays and spit cups in your home and vehicle.
- 3. Tell others you are quitting so they can support your new behaviors. Consider a nosmoking or no tobacco rule where you live.
- 4. Write down your tobacco triggers and create a list of new behaviors to replace time spent using tobacco such as exercise, chewing gum, going for a walk or calling a friend.
- 5. Use the 4Ds when you have cravings:
  - a. Delay the behavior, even a few minutes may be enough for the craving to pass.
  - b. Take a deep breath.
  - c. Drink fluids to clear nicotine from the body.
  - d. Do something else.

For More Support or Information:

- Talk to your primary care provider, health care provider about quitting.
- Call the Ohio Tobacco Quit Line at 1-800-QUIT NOW or 1-800-784-8669. Visit their website at http://ohio.quitlogix.org

#### **Alcohol and Surgery**

It is important to be honest with your health care providers about your alcohol use. Tell your surgeon how many drinks you have per day (or per week).

#### **How Does Alcohol Affect My Surgery?**

If you drink more than 3 drinks a day, you could have a complication, called alcohol withdrawal, after surgery. Alcohol withdrawal is a set of symptoms people have when they suddenly stop drinking, after alcohol use for a long period of time. During withdrawal, a patient could have symptoms such as mild shakiness, sweating, hallucinations and other more serious side effects. Untreated, alcohol withdrawal can cause potentially life threatening complications after surgery.

Alcohol should be avoided after surgery and especially, while you are taking pain medications. Alcohol will seriously increase serious side effects of narcotics and other medications,. Alcohol will increase your risk of falling and decrease wound healing.

#### **Antibiotics After Joint Replacement**

It is very important that you take preventative antibiotics before any dental procedures. We trust your dentist and your family physician to handle the prescribing of the antibiotics. If for some reason your dentist/physician does not feel comfortable to write the prescription, please call your surgeon's office. Your dentist will prescribe antibiotics prior to your appointment.

#### **Antibiotic Medication Recommendations**

Amoxicillin – a form of penicillin (500 mg – 2 g, Dispense 4 Tablets) 1 hour prior to dental procedure

If Amoxicillin allergy, Clindamycin (300 mg 2 tabs, 600 mg total) 1 hour prior to dental procedure

#### **Dental Appointments**

Dental appointment procedures to help reduce infection. Remember to have any routine dental work done either before surgery or months after surgery. You will continue to use antibiotics prior to any dental work for two years following your total joint replacement. It is your responsibility as the patient to make your dentist aware of your total joint implant.

#### **Returning to Work**

Returning to work depends on your individual recovery and how much demand or stress your job puts on your knee. The general guideline is to be off work for approximately 6 to 10 weeks from surgery. Those who have desk jobs will be able to return to work sooner than someone who does a lot of standing, walking, lifting or physical labor. You may return to work on a part time basis at first and slowly increase your hours to full time. You may also be sent back to work with limitations such as how much weight you can lift.

#### **Sexual Activity**

You may resume sexual activity when you can do so comfortably.

#### **Driving and Car Travel**

For the first 2 weeks, you may travel in the car as a passenger. You should not ride in the car for longer than 45 minutes at a time, to prevent swelling and stiffness. Gradually increase the amount of time as your endurance increases. You may begin to drive when you are:

- 1. No longer taking narcotic pain medication
- 2. Able to sit comfortably, get in and out of the car and sit in the driver's seat
- 3. Able to forcefully apply the car brakes when necessary

#### **Air Travel**

As you fly, pressure changes and sitting for long periods will cause your leg to swell and increase your risk of blood clots. For this reason, we suggest that you not travel in your immediate post-operative period. If you are planning air travel within the first two months of surgery, please discuss with your surgeon.

Airport Security no longer accepts medical alert cards. Inform airport security screeners that you have an artificial joint.

# ADDITIONAL INFORMATION Frequently Asked Questions

#### **Q** What time should I be at the surgery center?

A The surgery center or your surgeon's office will contact you late in the afternoon prior to your surgery date and will tell you what time you need to arrive at the surgery center. If your surgery is on a Monday, you will be contacted late Friday afternoon prior to your surgery. At that time your surgeon's office may also review with you any final instructions.

#### **Q** What is typical for post-operative activity?

- A Every patient is different and times are to be considered approximate. You will progress at your own rate with guidance from your physician and therapist.
  - Bearing weight and walking within hours after the surgery
  - Require a front-wheeled walker for 2 to 4 weeks
  - Use a cane following the walker for 2 to 3 weeks
  - You should be increasing your activity level daily, but let pain be your guide. Most patients return to full activity by 8 to 12 weeks.

#### Q How long will it take to recover? How long will my knee continue to hurt and swell?

A Most patients feel better about 3 months after surgery. By 6 months most patients are happy they had the knee replacement surgery. Most patients realize a 80-90% reduction in pain, swelling, stiffness and increase in strength and motion over the first 3 months. Patients should continue to improve over the next 18 to 24 months after surgery! Sometimes there is a dull ache after long walks or increased activity up to 18 months post operatively. Startup pain and pain that occurs with the first steps after standing up, may be present for as long as 2 years after surgery.

Occasionally pain will completely disappear for several months, and then reappear with changes or increase in activity, even as long as 2 to 3 years after surgery. This type of pain will improve and does not indicate a problem with the implant.

Swelling may increase the first few weeks after surgery as you become more active at home and is generally worse in the evenings if you overdo activities during the day. Please be sure to notify our office if your swelling does not decrease 24-48 hours after rest, ice and elevation.

#### **Q** When can I start using my cane?

A Your physical therapist will suggest when you may start using your cane. Generally, as your strength and balance improve, you may begin using your cane. This will be different for each person. The average is 2 to 4 weeks following surgery.

You should use your cane until you can walk without a limp.

You may also consider using a cane when you plan to be in a busy, crowded environment or on uneven ground.

#### **Q** When can I drive?

A No driving is permitted while taking narcotic pain medication. Talk with your surgeon about when you may begin to drive. Depending on your surgery and situation you are usually permitted to drive after you are using a cane and off all narcotics. **Please note you will need someone to drive you to outpatient therapy until you are cleared by the surgeon to drive—approximately 3 to 6 weeks.** 

# ADDITIONAL INFORMATION Frequently Asked Questions

#### **Q** How long will I need to take pain medications?

- A Pain tolerance varies from patient to patient. Some patients take pain medications for as long as 2 to 6 weeks while others for as little as a few days to 2 weeks. Follow the pain management sections in this guide and call your surgeon for any questions!
- **Q** When can I restart my sports activities (biking, golf, swimming, etc.?)
- A Always discuss with your surgeon and physical therapist before restarting your sports activities. It will depend on the activity and how your body is healing after surgery.

#### **Q** When can I get rid of those white stockings?

A Your physician will provide instructions for how long you are required to wear compression hose to reduce your ricks of DVT. Generally speaking, to reduce the risk of blood clots and swelling, wear the stockings for 30 days after surgery. If you are still experiencing swelling after the 30 days, continue wearing the stockings until the swelling is no longer an issue.

## Q How much exercise should I do and how can I tell if I have done too much?

A Mild to moderate exercise is beneficial. Overdoing exercise is painful and may cause swelling and could potentially be harmful. You will know that you have done too much when you experience an increase in pain that lasts 2 hours after exercise or if you are still sore the following morning.

## **Q** Will my knee replacement set off metal detectors in airports?

A When you go through airport security be sure to tell the screener that you have an artificial joint. There are no longer medical alert cards to use at the airport.

#### **Q** What positions can I sleep in?

- A You may sleep on your back or on either side. If you choose to sleep on your side, make sure you place a pillow between your legs for the first 3 weeks. Your physical therapist will assist you initially into this position and give you proper instructions. Do not do it on your own the first time!
- **Q** What if I live alone?
- A There are 2 options after surgery.
  - Return home with your caregiver and begin outpatient physical therapy when indicated by your physician.
  - Return home with your caregiver and begin home health therapy.

It is your responsibility to have a plan in place for discharge and have a to care giver to help you with your recovery after surgery.

ONLY MEDICALLY-ELIGIBLE PATIENTS DISCHARGE TO A SKILLED FACILITY FOR FURTHER THERAPY AND RECOVERY.

#### Additional Questions

This binder was designed as a comprehensive guide to take you full circle through every aspect of your knee replacement surgery. If there are any questions you have or you need further clarification on anything, please do not hesitate to call us and get in contact with your surgeon.

## Please contact your provider's office with any questions.

You can also reach us on the Web at: **www.orthopedicone.com** 

# ADDITIONAL INFORMATION Nearby Hotel Options

#### **Surgery Center at Easton**

Holiday Inn Express at Easton 4899 Sunbury Road Columbus, OH 43219 1-888-HOLIDAY *Find more hotel options at* www.EastonSurgeryCenter.com

#### **Mount Carmel East**

Comfort Suites – East Broad at 270 70 Chris Perry Ln. Columbus, OH 43213 614.364.4362 or 800.424.6423

Home 2 Suites – Columbus Airport 6315 East Broad St. Columbus, OH 43213 614.604.9113

#### Mount Carmel St. Ann's

Ramada – Columbus Polaris 6767 Schrock Hill Ct. Columbus, OH 43229 614.890.811

Embassy Suites – Columbus 2700 Corporate Exchange Dr. Columbus, OH 43231 614.890.8600 or 800.362.2779

#### **Mount Carmel New Albany**

Courtyard – Columbus New Albany 5211 Forest Dr. New Albany, OH 43054 614.855.1505

Hampton Inn & Suites – New Albany Columbus 5220 Forest Dr. New Albany, OH 43054 614.855.8335

#### **Ohio Orthopedic Surgery Institute**

Fairfield Inn & Suites by Marriott 7150 Sawmill Rd Columbus, OH 43235 614.389.3036

#### **Ohio Health Dublin Methodist**

Courtyard by Marriott Dublin 5175 Post Rd. Dublin, OH 43017 614.764.9393

Embassy Suites by Hilton – Columbus 5100 Upper Metro Pl. Dublin, OH 43017 614.790.9000

#### **Ohio Health Grady Memorial**

Hampton Inn – Columbus/Delaware 7329 State Route 36/37 at I-71 Exit Sunbury, OH 43074 740.363.4700

Holiday Inn Express & Suites – Sunbury/Columbus 7301 State Route 37 at I-71 Exit Sunbury, OH 43074 740.362.3036

If your surgery has been scheduled at Riverside Hospital, they have special lodging services for patients and families.

#### Call a Riverside Hotel Care program representative at 614.566.5397 for more information or contact our partners directly at the numbers listed below.

OhioHealth Big Red's Lodges 3773 Olentangy River Rd. – 614.566.2447

Hilton Garden Inn 3232 Olentangy River Rd. – 614.263.7200

Holiday Inn Express & Suites 3045 Olentangy River Rd. – 614.447.1212

Fairfield Inn & Suites OSU 3031 Olentangy River Rd. –614.267.1111

