



# **Knee Replacement Guide and Therapy Protocol**

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You have made the decision to have a total joint replacement to decrease your knee pain and increase your quality of life. Joint replacement is a major event in every patient's life and understandably you will have questions throughout the process. This guide is to help you through this process.

### ***Getting Ready for Surgery – Check List***

#### **🍏 Get a Pre-operative Physical Exam**

Before surgery, a preoperative physical is necessary. This is done by your primary care physician and will need to be completed either within one month or one week of surgery depending on which hospital your surgery is at. Bring an up-to-date list of the current medications and supplements you are taking including the doses of each.

#### **🍏 Make a Post-operative Appointment**

10-14 days after surgery, you will have a post-operative appointment with Jessie, Dr. O'Neill's physician assistant. This appointment is typically made at the time you schedule surgery, if it is not please call to schedule this appointment prior to surgery. At this appointment your staples will be removed and x-rays will be taken of your knee.

#### **🍏 Make Physical Therapy Appointments**

You will need physical therapy after surgery, these appointments can be made prior to your surgery. Your first therapy appointment should be made for the week after surgery. The first couple weeks following surgery you should see the therapist 2-3 times a week. Therapy can be done through Twin Cities Orthopedics or another therapist of your choice. Physical therapy scheduling:

Burnsville: 952-808-3052

Edina: 952-456-7000

#### **🍏 Attend Joint Replacement Class**

Each hospital offers a preoperative joint replacement education class. This class gives you tips to prepare for surgery as well as goes through what to expect while you are at the hospital and after surgery. If you will be having a family member or friend help you after surgery we encourage you to invite them to the class as well. These classes are a general overview of joint replacements with patients of many different surgeons attending so the information you receive at the class may be different from what Dr. O'Neill has told you. The information you received from Dr. O'Neill should always take priority. If you have any questions about conflicting information, please contact the office. To schedule at Abbott Northwestern you can call 612-863-0310. To schedule at Fairview Southdale Hospital you can call 612-672-7272.

### 🍏 **Buy dressing change supplies**

You will need to change your dressing daily once you leave the hospital. You should buy supplies for this from any pharmacy. Supplies include gauze and tape. You will not need any creams or ointments for your incision.

### 🍏 **Gait Aides**

After surgery you will use a walker, crutches, and/or a cane for an average of 2-4 weeks. You can borrow these from someone you know or they can be acquired in our Physical Therapy department. If you need instruction on the use of these one of our Physical Therapists will be happy to help.

### 🍏 **Stationary bike**

If you have or can borrow a stationary bike, it is the very best exercise you can do for your knee after surgery. Put the bike in a spot that will be easy for you to access.

### 🍏 **Absence from Work**

The time frame for returning to work after a total knee replacement varies depends on you and your job. Patients who have a desk job are able to return to work on the average within 3-6 weeks. If you have a more physically demanding job it may be 10-12 weeks before you are back at work. **If you need paperwork filled out for your employer bring this to the office prior to your surgery, try to avoid bring any paperwork to the hospital. You can also mail or fax (952-456-7804) paperwork to the office to the attention of Alyssa.**

### 🍏 **Getting your house ready for your return after surgery**

There are a few things you can do before surgery to make your transition home after surgery easier including: move items you regularly use to a level that is easy to access, have a phone that is nearby, remove any tripping hazards (throw rugs, etc), and prepare meals for after surgery.

### 🍏 **Start taking a Daily Multi-Vitamin**

If you attend the total joint class provided by the hospital they will tell you to start taking a prenatal vitamin one month prior to your surgery. You are welcome to do this or start/continue taking a regular multi-vitamin. It is a good idea to take some sort of vitamin for one month prior to surgery.

### 🍏 **Medications to have at Home**

There are a few medications you might want to have available at home to use after surgery if needed. These include:

- ***Aspirin 325mg*** – this will be necessary to take after surgery to help prevent blood clots. If you do not get it prior to surgery, you will be given a prescription at the hospital when you are discharged. You will take a total of 60 tablets.

- **Iron supplement** (ferrous sulfate 325mg) – you will lose some blood at the time of surgery and iron can help restore the loss faster. You can take 1 tablet 1-3 times a day. Iron can cause constipation, so take it as you tolerate.
- **Stool softener** (senokot, Colace, Dulcolax) – you will be more constipated after surgery due to being sedentary and taking a narcotic pain medication. A stool softener can help with this as can eating a fiber-rich diet (wheat bran, fresh fruits and veggies, and oats). Other things that can help include drinking plenty of water and being more active or exercising daily.
- **Extra Strength Tylenol** – this is a great adjunct to the pain medication you will be taking. You can take 2 tablets 4 times a day.
- Dr. O'Neill recommends avoiding ibuprofen or Aleve until you are done taking the aspirin.

#### 🍏 **Get an Antibacterial Soap**

Also at the total joint class you will be instructed to buy an antibacterial soap called hibiclense. This can be purchased at the total joint class, the pharmacy, or online. You could also use an antibacterial soap like Dial. You should shower with some sort of antibacterial soap the night before surgery.

#### 🍏 **Planning a stay at a Transitional Care Facility after Surgery**

Most patients are able to go directly home from the hospital however, some patients, especially those who live alone, prefer to go to a transitional care facility after surgery rather than going right home. Keep in mind that Dr. O'Neill recommends all patients go home from the hospital that are able to due to increased risk of infections at all nursing homes. Infections include but are not limited to joint infection, pneumonias, urinary tract infections, and upper respiratory infections. If you and your family decided a stay at a nursing home is best for you then the social worker at the hospital will meet with you the day after surgery to discuss this. If you have a care facility in mind that you want to stay at you can call the facility prior to surgery and see if they can reserve a room for you after surgery, not all facilities do this. You will be in the hospital for three days after surgery.

#### 🍏 **Donating Blood**

Blood loss at the time of surgery typically is not enough to require a transfusion. We use medication as well as a tourniquet to reduce the blood lost at the time of surgery. It is typically not necessary to donate blood before surgery. If a transfusion is needed following surgery you will be given blood donated by another person. This blood is always thoroughly screened and tested.

#### 🍏 **Dental Appointment**

Dr. O'Neill recommends waiting 3 months after surgery to have any routine dental work done. Plan ahead and have your dental work up-to-date prior to surgery.

## *One Week before Surgery*

- 🍏 Stop taking any vitamin supplements, herbal medications, over-the-counter medications, aspirin, or any anti-inflammatory medications (i.e., ibuprofen, motrin, advil, naproxen sodium, naproxyn, or aleve).
- 🍏 If you take a prescription blood thinning medication, your primary care physician will direct you when to stop taking this prior to surgery, usually 5-7 days.

## *Night before Surgery*

- 🍏 Take a shower with hibiclens soap or an antibacterial soap.
- 🍏 Do not eat or drink anything after midnight the night before your surgery. You can take any necessary prescribed medications with a sip of water the morning of surgery.
- 🍏 You might find it nice to put freshly laundered sheets on your bed for you to come home to after your hospital stay.

## *Day of Surgery*

### **Before Arriving at the Hospital**

You can take another shower with hibiclens soap or antibacterial soap. After your shower you should put on freshly laundered clothes. You should not use any lotions or creams on your skin.

### **Before Surgery**

Please arrive at the hospital 2 hours prior to your surgery. Dr. O'Neill will see you in the preoperative area before your surgery to answer any questions or concerns you may have. Everyone will also meet with one of the board certified anesthesiologists prior to surgery. They will discuss different types of anesthesia, risks and possible complications of the anesthesia. You will either have a spinal or general anesthetic, depending on your discussion with the anesthesiologist.

### **During Surgery**

***Surgery Time*** – The surgery will take between 2-3 hours. This time includes getting you positioned, Dr. O'Neill operating, and waking you up from the anesthetic after the surgery.

***Catheter*** - Once you have had your anesthetic, the operating room nurse will place a catheter in your bladder to aid urination during surgery and immediately post-operatively. This will be removed the morning after surgery once you are able to get up out of bed to use the bathroom.

**Drain** - You will have a tube (drain) placed in the knee during surgery that will allow excess fluid to drain from the knee and help keep swelling down. This will also be removed the day after surgery.

### **After Surgery**

**Recovery Room** - After surgery you will spend about 1 hour in the recovery room and then you will be moved up to your room on the surgery and orthopedic floor. Your leg will be placed in a continuous passive machine (CPM) the day of surgery. This machine helps move your knee and keeps stiffness to a minimum.

## **In the Hospital**

**Pain after surgery** - Dr. O'Neill works closely with the hospital nurses to control your pain with pain medication. Even with the medication expect to feel some pain. Note that the first night you will have less pain because the nerve block that was placed by the anesthesiologist prior to surgery will still be in place. The day and night of surgery you will be on IV pain medication. The day after surgery you will be transitioned to an oral pain pill. This is usually Oxycodone or Percocet. Pain medications are opioid derivative medications that can make you sleepy, dizzy, and constipated.

**The Incision** –Your wound will be closed with sutures that will dissolve on their own, this typically takes 6-8 weeks. There will also likely be staples and these will be removed at your first post-operative appointment. The bandage that is applied during surgery goes from the foot up to the hip. This will remain in place until the second day after surgery. Once this is removed it will be replaced with a smaller dressing of gauze and tape just over the incision. This dressing should be changed daily.

**Blood Clots** - To help prevent blood clots and to reduce swelling in your legs you will be given a pair of white compression socks to wear. You should wear these until your first post-operative appointment. You can remove these socks twice a day for 30 minutes and for showering. You will also be getting a shot in the stomach while you are in the hospital to help prevent blood clots, this medication is called Lovenox.

## **Leaving the Hospital**

### **Discharge**

You will be in the hospital for 2-3 days. You will work with the social worker, physical therapist, and Dr. O'Neill to determine if you will be going home from the hospital or if a short stay at a transitional care facility is better for you.

Medications prescribed for you at the time of discharge:

1. **Aspirin 325mg** - the day after you get home from the hospital you will start taking a full aspirin (325mg) twice a day for 5 weeks. If you were taking a baby

aspirin (81mg) prior to surgery you do not have to resume this until the 5 weeks of the full aspirin are completed.

\*\*\*If you were taking Coumadin prior to surgery you will resume this instead of taking the aspirin\*\*\*

2. **Oxycodone 5mg** - You will have a prescription for the pain medication that you were taking in the hospital, this will most likely be oxycodone.
3. **Senokot 8.6/50mg** – This is a stool softener that you will be prescribed if you do not have one at home. You can take 1 or 2 tablets twice a day as needed for constipation. We recommend you take this as long as you are taking narcotic pain medication.

\*There is a medication chart at the end of this packet for you to use to record what time and the dose of medication you are taking. We recommend using this chart because you will have several medications to keep track of and your mind can get a little cloudy while you are on narcotic pain medication.

## *Postoperative Information*

### **Pain after surgery**

You will be taking narcotic pain medication after surgery to help relieve your pain. Pain medications are opioid derivative medications that can make you sleepy, dizzy, and constipated. They are also addictive if used for long periods of time. Please take narcotic pain medications sparingly but stay ahead of your pain. As you get farther and farther from surgery you will be able to take less and less pain medication. Patients typically use pain medication the longest to sleep at night. Everyone heals differently but most patients are on pain medication for about 4 weeks.

### **Medication Refills**

If you need a refill of your pain medication prior to your first post-operative appointment please contact our office. Please allow 24 to 48 hours for refills to be processed. **Any refills needed before the weekend will need to be submitted on Thursday. Also, narcotic pain medication such as Oxycodone and Hydrocodone prescriptions cannot be called in to the pharmacy and will need to be picked up at our clinic (Burnsville or Edina) this is a Federal Law.** You or a family member will need to allow for time to come to our office to pick these up. As your pain improves we usually transition you to Tylenol #3, which can be called into the pharmacy.

### **Swelling**

Swelling will last about 6 to 12 months. It is normal for your knee to be stiff in the morning and swollen in the evening. It is very important to keep your leg elevated and iced over the course of the first month. Icing and elevation will help to decrease the stiffness and improve your knee motion. The best position to elevate your leg is to have the knee above the level of your heart and your ankle above the knee. You can place a pillow under your calf, not your knee, for comfort. Ice the knee after physical therapy and 4-5 times a day. Keep the ice on your knee for 20-30 minutes at a time.

## **Incision**

Your staples will be removed in 10 to 14 days from the date of surgery. You should keep the incision covered with a dressing until your staples are removed. You should not put any ointments or creams on the incision. It is recommended that you refrain from submerging your knee in water until the incision is fully healed to avoid infection, this takes about 3-4 weeks. However, you may let water run over the incision while showering starting 2-3 days after surgery.

## **Sleep**

Sleep during the first 6 weeks can be difficult. Use ice and pain medication to get as much rest as possible. The medication will tend to make you sleepy throughout the day. Try to exercise during the day and avoid “cat napping”. This will help with sleeping at night. If you are having trouble sleeping at night the first thing you should try is taking your bedtime dose of pain medication with Tylenol PM. This has Benadryl in with the Tylenol and can help make you drowsy and make falling asleep easier. Take this medication as directed on the bottle. You can also try Melatonin which is an over-the-counter supplement. If you continue to have difficulty sleeping at night discuss this with Dr. O'Neill or Jessie. Your endurance will be decreased after surgery. The easiest tasks will take longer and you will tend to fatigue very easily. This will get better as healing progresses and your strength returns.

## **Physical Therapy**

You will have physical therapy 1-3 times a day while in the hospital. When you are discharged from the hospital the best exercise you can do to replace the continuous passive machine (CPM) is ride a stationary bike. This will help increase your knee flexibility as well as reduce stiffness. You will start by rocking the pedals back and forth without making a full revolution. You will be able pedal around backwards before you can go around forwards. You should also work on the therapy exercises given to you by your Physical Therapist 1-3 times a day.

Physical Therapy will last anywhere from 6 to 12 weeks depending on the individual. Rehabilitation is very individualized and is tailored to how you feel and progress during your therapy session. Your therapist will document the progress of your knee flexibility, pain control, and swelling. You should also keep track of your range of motion to follow your progression in physical therapy. **Dr. O'Neill will ask you what your range of motion is at each of your follow-up appointments!** It is your responsibility to do your exercises daily and make your therapy appointments. Your commitment to your exercise program is the key to a full recovery. Most appointments will be scheduled 2-3 times a week at first. The goal is to get 0-120 degrees of motion in your knee following surgery. You will not get your motion back overnight, this takes time, patience, and commitment to your therapy exercises. There is a chart at the end of this packet that you can bring with you to each of your therapy appointments to record your range of motion. Leg and knee strengthening will begin at your first therapy appointment and continue throughout therapy.



You will be using an assistive device such as crutches or a walker to help with your weight bearing as you heal. Your therapist will help you progress your walking as you get stronger. Gradually increase how far and how long you walk. You should start with 3-4 short walks every day. After your walk, lie down, elevate and ice your knee to reduce swelling.

### **Driving**

You will not be able to drive right after surgery. You will need to arrange for a ride home from the hospital. If you are planning on going to a transitional care facility the social worker can arrange for transportation from the hospital. You will also want to arrange for rides to your physical therapy appointments at least for the first few weeks after surgery. You can return to driving when you feel you can safely operate the vehicle and you are no longer taking narcotic pain medication during the day.

## **Life after Total Knee Surgery**

### **Activity**

The goal of having your knee replaced is to get you back doing all the activities that you want to do. This includes walking, gardening, golf, tennis, even downhill skiing. The only activity that Dr. O'Neill would like you to avoid is long distance running. This is because the repetitive impact of running on the joint can wear the polyethylene plastic insert faster.

### **Kneeling**

You are able to kneel on a padded surface after your total knee surgery. Try to avoid any prolonged kneeling on a hard surface such as a wood or concrete floor.

### **Dental Antibiotic**

After total joint surgery it is best to wait 3 months before having any routine dental cleaning done. Once you do go back to the dentist after surgery you will need to take an antibiotic. You should take this prior to any dental cleaning for two years after surgery. The antibiotic is to prevent the bacteria from your mouth getting into your blood and causing an infection in your joint. You can request this antibiotic through our office.

### **Traveling**

You can travel as soon as you feel comfortable after your joint replacement surgery. Dr. O'Neill typically recommends waiting one month after surgery before flying due to an increase risk of blood clots. If you are traveling within the first three months after surgery (but after you have completed the 5 weeks of Aspirin twice a day) you should take one 325mg aspirin daily starting the day before you travel and continue this one day after you travel. This includes both long road trips or if you are flying. It is also recommended that you wear compression socks for both long road trips or while flying.

Please note your joint replacement will make the security alarms go off at the airport. You simply need to inform the checkpoint worker that you have a replacement and they

will screen you accordingly. You should allow for extra time to get through security at the airport. TSA is not interested in a security card, however, if you would like to have a card stating you have a total joint replacement we have the available at the office.

### *Questions?*

If you have any further questions, before or after surgery, please contact us at:

Alyssa – Dr. O'Neill's secretary: 952-808-3000 ext 25086

Jessie – Dr. O'Neill's physician assistant: [jessiedonovan@tcomn.com](mailto:jessiedonovan@tcomn.com)

Also, Dr. O'Neill's website has more information on it that can help to answer any questions or concerns you may have: [www.owenoneillmd.com](http://www.owenoneillmd.com)

## *Your Appointments*

Surgery Date: \_\_\_\_\_

Post-Operative Follow-up Date: \_\_\_\_\_

Pre-Operative History & Physical Exam with Primary Care Provider: \_\_\_\_\_

Dental Cleaning Appointment: \_\_\_\_\_

Physical Therapy Week 1 Appointment #1: \_\_\_\_\_

Physical Therapy Week 1 Appointment #2: \_\_\_\_\_

Physical Therapy Week 1 Appointment #3: \_\_\_\_\_

Physical Therapy Week 2 Appointment #1: \_\_\_\_\_

Physical Therapy Week 2 Appointment #2: \_\_\_\_\_

Physical Therapy Week 2 Appointment #3: \_\_\_\_\_

Physical Therapy Week 3 Appointment #1: \_\_\_\_\_

Physical Therapy Week 3 Appointment #2: \_\_\_\_\_

Physical Therapy Week 3 Appointment #3: \_\_\_\_\_

Physical Therapy Week 4 Appointment #1: \_\_\_\_\_

Physical Therapy Week 4 Appointment #2: \_\_\_\_\_

Physical Therapy Week 5 Appointment #1: \_\_\_\_\_

Physical Therapy Week 5 Appointment #2: \_\_\_\_\_

Physical Therapy Week 6 Appointment #1: \_\_\_\_\_

Physical Therapy Week 6 Appointment #2: \_\_\_\_\_

Physical Therapy Week 7 Appointment #1: \_\_\_\_\_



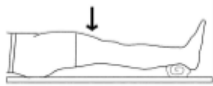

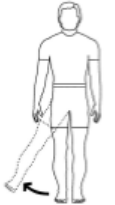
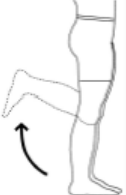
Physical Therapy Week 8 Appointment #1: \_\_\_\_\_

## *Your Knee Range of Motion*

Remember, Dr. O'Neill or Jessie will ask you at **EVERY** post-operative appointment what the range of motion of your knee is. It is your responsibility to know this! Your physical therapist will measure this at every physical therapy appointment, if they do not tell you what your knee measures, ask them! The amount is measured in degrees. Below is a chart for you to record your range of motion and to make sure it is improving a little at each physical therapy appointment. Bring this with you to every therapy visit.

Date of Appointment	Extension (how straight your knee goes)	Flexion (how much you can bend your knee)
<b>GOALS</b>	<b>0 degrees</b>	<b>120 degrees</b>

Below are some of the physical therapy exercises you will be doing after surgery. They will be easier to perform after surgery if you practice prior to surgery.

<p><b>Stretch knee flx sit w/towel (Sitting towel Quad stretch)</b></p>  <ul style="list-style-type: none"> <li>• Sit.</li> <li>• Bend involved knee and place foot flat as shown.</li> <li>• Loop towel around ankle.</li> <li>• Pull heel towards buttocks and hold.</li> <li>• Relax and repeat.</li> </ul> <p>Perform 1 set of 4 Repetitions, twice a day.</p> <p>Use Towel.</p> <p>Hold exercise for 20 Seconds.</p>	<p><b>Stretch knee flx longsit (Sitting knee bend)</b></p>  <ul style="list-style-type: none"> <li>• Sit.</li> <li>• Bend involved knee and place foot flat as shown.</li> <li>• Gently slide hips and buttocks toward ankle.</li> <li>• Do not let foot move.</li> <li>• Relax and repeat.</li> </ul> <p>Perform 1 set of 4 Repetitions, twice a day.</p> <p>Hold exercise for 20 Seconds.</p>
<p><b>Stretch knee ext supine (Knee extend stretch)</b></p>  <ul style="list-style-type: none"> <li>• Lie face up, ankle supported on towel roll.</li> <li>• Relax leg and allow gravity to straighten leg.</li> </ul> <p>Perform 1 set of 4 Repetitions, twice a day.</p> <p>Hold exercise for 20 Seconds.</p>	<p><b>AROM hip flx stand bent knee (Chair march)</b></p>  <ul style="list-style-type: none"> <li>• Stand with hand on table or chair for support.</li> <li>• Lift right leg up as high as possible, bending knee.</li> <li>• Lower leg.</li> <li>• Lift left leg up as high as possible, bending knee.</li> <li>• Lower leg.</li> <li>• Repeat.</li> </ul> <p>Perform 3 sets of 20 Repetitions, once a day.</p> <p>Rest 1 Minute between sets.</p> <p>Perform 1 repetition every 4 Seconds.</p>
<p><b>AROM hip abd uni stand (Side leg kickout)</b></p>  <ul style="list-style-type: none"> <li>• Stand.</li> <li>• Place weight on uninvolved leg.</li> <li>• Keep knee straight, moving involved leg outward.</li> <li>• Return to start position.</li> </ul> <p><b>Special Instructions:</b></p> <p>Keep trunk upright.</p> <p>Perform 3 sets of 20 Repetitions, once a day.</p> <p>Rest 1 Minute between sets.</p> <p>Perform 1 repetition every 4 Seconds.</p>	<p><b>AROM knee flx uni standing (Standing one leg knee bend)</b></p>  <ul style="list-style-type: none"> <li>• Stand, bend involved leg toward hip through full range.</li> <li>• Return to starting position.</li> <li>• Do not bend leg at hips.</li> </ul> <p>Perform 3 sets of 20 Repetitions, once a day.</p> <p>Rest 1 Minute between sets.</p> <p>Perform 1 repetition every 4 Seconds.</p>

**AROM ankle PF bil stand (Double heel raise)**



- Stand, using chair for balance.
- Raise up on toes, through full range.
- Return to start position and repeat.

Perform 3 sets of 20 Repetitions, once a day.

Rest 1 Minute between sets.

Perform 1 repetition every 4 Seconds.

**Stretch knee flx sit w/towel (Sitting towel Quad stretch)**



Perform 1 set of 4 Repetitions, twice a day.

Use Towel.

Hold exercise for 20 Seconds.

**Stretch knee flx longsit (Sitting knee bend)**



Perform 1 set of 4 Repetitions, twice a day.

Hold exercise for 20 Seconds.

**Stretch knee ext supine (Knee extend stretch)**



Perform 1 set of 4 Repetitions, twice a day.

Hold exercise for 20 Seconds.

**AROM hip flx stand bent knee (Chair march)**



Perform 3 sets of 20 Repetitions, once a day.

Rest 1 Minute between sets.

Perform 1 repetition every 4 Seconds.

**AROM hip abd uni stand (Side leg kickout)**



Perform 3 sets of 20 Repetitions, once a day.

Rest 1 Minute between sets.

Perform 1 repetition every 4 Seconds.

**AROM knee flx uni standing (Standing one leg knee bend)**



Perform 3 sets of 20 Repetitions, once a day.

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**AROM ankle PF bil stand (Double heel raise)**



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