



# Concord Orthopaedics

## A Patient Guide to Total Knee Replacement

Thank you for choosing Concord Orthopaedics for your total joint replacement surgery! We are happy to be part of your journey. Your total joint replacement surgery will be performed by one of the most experienced orthopaedic surgical teams in New England. After reading this information, please reflect on the ways that we can help you achieve your goals. Whether your goal is to play a sport, travel, or just be out of pain, we are committed to serving you. You will meet many people along the way, but it is important to remember that **YOU** are the most important member of this team. Please feel free to reach out to us at any time. We are **ALWAYS** here for you!



This guide is designed to give you the important information you need to achieve the best outcome from your Total Knee Replacement surgery, including:

- What is a Total Knee Replacement surgery.
- How to prepare for your upcoming Total Knee Replacement surgery.
  - What to expect before, during, and after surgery.
- What to expect during your recovery at home, and your life after.

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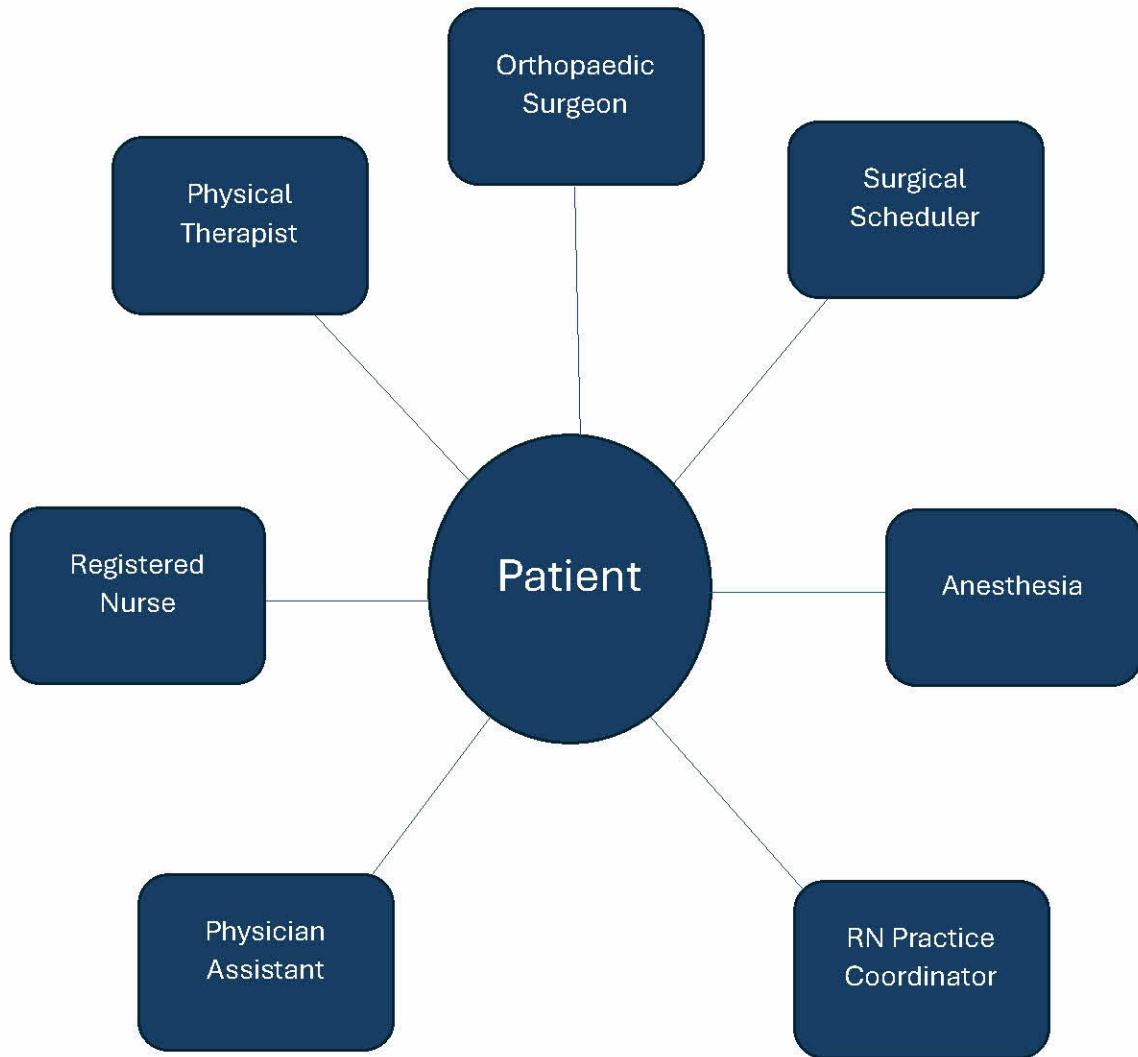
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# Your Care Team



# Common Causes of Joint Pain and Loss of function

## **Osteoarthritis:**

Often seen in individuals with family history and over the age of 50. It is the result of the cartilage that cushions the bone wearing away. This causes the bones to then rub against each other, resulting in pain and stiffness.

## **Rheumatoid Arthritis:**

Is an autoimmune and inflammatory disease, where the immune systems attack healthy cells in your body by mistake. This results in painful joint swelling that damages the joint cartilage, eventually causing cartilage loss, pain and stiffness.

## **Traumatic Arthritis:**

Is swelling of your joints that can occur after a sudden serious joint injury. This prior injury can damage the cartilage over time, resulting in joint pain and limiting function.



Normal knee

Arthritic Knee

Replaced knee

# Understanding Knee Replacements

## What is a Knee Replacement

The knee is a hinge joint and is the biggest joint in your body. This joint connects your upper leg to your lower leg and is supported by muscles, tendons, ligaments and cartilage. When the cartilage wears away you will experience stiff and painful knees. During a knee replacement the damaged cartilage and bone are removed from the end of the thigh bone and top of the shin bone. The process of removing the cartilage and bone is like the action of peeling an apple or orange. After the removal of the damaged cartilage and bone, the thigh and shin bone are covered with metal caps and a plastic cushion is inserted between the bones. Knee replacements are a very successful operation in medicine.

## Benefits of Knee Replacement Surgery

### **Pain relief:**

The main benefit of knee placement surgery is pain relief. Although a knee replacement is not your normal knee, the pain relief can provide a better quality of life, assist you in regaining your independence and return you to previous activities.

### **Improved Mobility and knee function:**

Increased mobility and function are a major benefit from knee replacements. Your joint replacement surgery can help you regain your range of motion and assist in a better quality of life. You may also be able to return to many of your recreational activities. Speak to your surgeon if you have any questions.

### **Long-term results:**

Current evidence shows over 90 % of patient with knee replacements are happy with their results and their knee replacements are still functioning after 15 – 20 years of use.

# Risks of Knee Replacement Surgery

*Surgical complications are rare, but it is important that you are fully informed about the possible risks associated with a knee replacement. Please ask your surgeon for more details or clarification if you have any questions.*

## **Tendon and Ligament Rupture:**

There is a small risk of rupture of the patellar tendon or fracture of your kneecap following surgery. This may require additional surgery or the use of a leg brace.

## **Limited Knee Motion:**

The knee has similar motion after surgery. In a few cases the knee may become stiff with little motion after surgery. To correct this, a manual manipulation under anesthesia is performed. This is when the knee is gently bent to recover necessary joint motion. Patients who experience pre-op stiffness are at a higher chance for developing post-op stiffness. This complication can often be avoided by working with your physical therapist with your therapy program.

## **Infection:**

We do many things to avoid or limit the possibility of infection. You are given antibiotics before and after your surgery to reduce your risk for infection. You may also be prescribed the use of an antiseptic treatment on your skin or in your nares before surgery if you are found to be colonized with MRSA or MSSA

during your pre-operative testing appointment.

Although rare, an infected joint replacement can be a serious complication. Some patients with chronic health conditions may be at a higher risk. It is important to ensure that chronic health conditions are controlled before surgery to maximize your outcome. If an infection occurs, it may be treated with antibiotics. Infections that have reached the inside of your joint may require an additional operation.

It is important to understand you have a risk for infection throughout your life after joint replacement surgery. Bacterial infections of your bladder, kidney, ingrown toenail, dental abscesses, or sinus infections can pose a threat. If you develop one of these types of infections, you should be treated immediately and notify the orthopedic office. The common cold, flu, and covid are viruses and do not pose a threat.

## **Blood Clots:**

Blood Clots, commonly called Deep Vein Thrombosis (DVT) can occur following surgery. These are often found in your calf, thigh or pelvis region. These clots can break off and travel to your lungs resulting in a pulmonary embolism (PE). To prevent the formation of blood clots, you will be prescribed a blood thinning agent such as aspirin by your surgeon. Patients with an increased risk of a DVT will be prescribed a stronger blood thinning agent to prevent the formation of blood clots.

**Bone Fracture:**

A bone fracture can occur during surgery when the implant is being inserted. If this occurs, this would be addressed during your surgery and may affect your recovery time.

**Loosening of the Joint:**

Loosening of the Joint can occur over time. This is due to wear of the materials and erosion to the bone surrounding the joint. Maintaining a healthy body weight and avoiding high impact exercise can reduce the risk of this occurring.

**Nerve Damage:**

Skin numbness is common after surgery. Total knee replacements commonly result in numbness to the surgical incision and outer aspect of the knee area. It may feel odd to kneel on the scar. Using a knee pad may help with this.

**Delayed Wound Healing:**

Smoking, Obesity, or poorly managed diabetes can result in delayed wound healing. Additionally, these conditions can increase your risk of a deep infection and may result in intravenous antibiotics, wound care or a return to the operating room. These modifiable lifestyle factors will be addressed prior to your surgeon agreeing to your joint replacement surgery.

**Reaction to Materials:**

There is a small risk for an allergic reaction to joint replacements. If you have an allergy to metal, let your surgeon know.

**Implant Wear and Failure:**

A total joint replacement is made with mechanical pieces that can wear and breakdown. Today's materials are very durable and 15 – 20 years post joint replacement 85 -90 % of patients still have their original implants. Please speak with your surgeon about this if you have further questions.

**Your surgeon and team will review modifiable lifestyles, recent medical treatments and existing medical conditions with you. If you have any of the following, you may require extra steps prior to your Total Knee Replacement to improve your health and to ensure your safety after surgery.**

- **BMI greater than 40**
- **Smoking**
- **Diabetes with Hemoglobin A1C greater than 8**
- **Daily alcohol use**
- **Living alone with limited help or in an unsafe situation**
- **Poor nutrition with a serum albumin less than 3.5**
- **IV drug abuse in the past year**
- **Current anticoagulation therapy**
- **Blood clot in the past six months**
- **Recent cortisone injection in affected joint**
- **Heart attack or stroke within the past six months**
- **Mental illness that required hospitalization within the past year**
- **MRSA infection in the past six months**
- **Active dental disease**
- **Anemia with hemoglobin under 11**
- **Congestive Heart Failure**
- **Chronic Obstructive Pulmonary Disease**
- **Dementia, memory loss or confusion**
- **Hemodialysis**
- **Hepatitis C**
- **Lymphedema**
- **Non-healing wounds**
- **Parkinson's Disease**
- **Rheumatoid Arthritis**



## What to Expect Prior to Your Surgery

### Surgical Scheduling

- Surgical Scheduler will call you within 3 – 5 business days to schedule surgery.
- Assist in coordinating appointments with your primary care doctor, and any specialty doctors.
- Assist in referral to Outpatient Physical Therapy.
- Help identify needed assistive devices you will need prior to surgery and where to purchase these ( ex. crutches or a walker)
- Will give you an appointment for pre-surgical testing prior to your surgery.

### Pre-Surgical assessment and testing

- Appointment is approximately 2 weeks prior to surgery.
- Will have an assessment by a clinician.
- Will have Labs drawn.
- Will have MRSA/MSSA swab collected (If positive a nurse will call you about results and next steps).
- Will be provided instructions on your anticoagulant (e.g. Eliquis, Plavix, Coumadin), diabetic and blood pressure medications.
- Will be provided a tentative arrival time for your surgery.
- All information will be communicated to your surgeon.

### Medication management

- Your surgical scheduler will provide instructions on vitamins/supplements (E.g. fish oil, Vitamin E), anti-inflammatory (e.g. Advil, Motrin, Aleve), and Rheumatoid arthritis medications.
- Anticoagulant (e.g. Eliquis, Plavix, Coumadin) medications will be managed through the prescribing doctor and communicated at your pre-surgical assessment and testing appointment.
- Information for diabetes and high blood pressure medication use will be communicated at your pre-surgical assessment and testing appointment.
- If you are ever unsure about if you should stop a medication, please call Concord Orthopaedics for clarification.

### Nursing Practice Coordinator

- Will call 1-2 weeks before your surgery date if you are having surgery in the hospital setting.
- Will verify your discharge plan home and assist in arrangement of services if needed.
- Will review common symptoms after surgery and when to call the office.

### **Patients To Do List:**

- Plan support and help for your surgery and recovery.
- Make my appointments as instructed by the Surgical Scheduler.
- Get needed medical equipment (2 wheeled walker).
- Complete an Advance Health Care Directive, if needed.
- Received arrival time for surgery.
- Brush teeth/oral care prior to surgery.
- Showered with Hibiclens Liquid as instructed prior to surgery.
- **DO NOT SHAVE OR USE HAIR REMOVAL** products within 48 hours of surgery
- REMOVE NAIL POLISH AND ACRYLIC NAILS PRIOR TO SURGERY.

### **What to notify your provider about prior to surgery**

#### **Dental Health:**

Any dental work should be completed at least 4 weeks prior to surgery or 6 months after surgery. If you have unplanned dental work within this period, please notify us.

#### **Illness:**

If you have a fever, sore throat, flu, or any other illness the week before surgery.

#### **Alterations in Skin integrity:**

Please call the office if you have any open areas, sunburn, rashes, abrasions, or other skin abnormalities on the affected arm prior to your surgery.

*Call our RN Practice Coordinator with pre-surgery clinical concerns, 1-603-224-3368  
ext. 4370*

# Preparing Your Home for After Surgery

- Have a nonslip bathmat inside the tub or shower.
- Remove tripping hazard such as, area rugs or electrical cords.
- Place frequently used items at counter height and within easy reaching distance.
- Ensure you have a cell phone or cordless phone that can go with you everywhere.
- Stairs should have handrails that are securely fastened.
- If you have a pet, see if someone can care for them for a few days or board them.
- Identify a tall chair with a firm back to sit in after surgery. You will need to keep your legs elevated after surgery. Consider a foot stool to help with this. Avoid sitting in a chair with wheels.
- Prepare meals ahead of surgery or plan to have quick healthy options available.
- Plan post-surgery outfits. We suggest loose fitting clothing that is comfortable to wear and easy for dressing.
- Ensure pathways and hallways are lit at night. Night lights work well for this.
- Identify a family or friend that can stay with you the first few days after surgery.

## What to Bring with you for surgery

- Photo ID and your insurance card
- Loose fitting clothes, including loose fitting pants with an elastic waist, a large shirt that can be zipped or buttoned, socks and undergarments.
- Comfortable shoes
- CPAP/BiPAP machine, mask and tubing if applicable. Rescue inhalers if you use them.
- Walker, to allow for proper fitting.
- All jewelry, rings, valuables, should be removed and left at home, including wedding bands.

# What to Expect During Your Operative Stay

## AMU (Admitting Unit):

- Will sign consent forms.
- Will review medical history and medications.
- Change into hospital gown, socks and surgical hat.
- IV will be inserted.
- Will meet with anesthesiologist and surgeon.
- Will receive pre-operative medications and preoperative non-opioid pain medication.
- Your family may stay with you until it is time for your procedure.

## Operating Room:

- Continuous monitoring of your blood pressure, heart rate and breathing status.
- Surgery performed.
- Different procedures require different positions. Inform your surgeon/team if you have chronic pain. They will assist in better positioning to help with this.

## PACU (Post Anesthesia Unit):

- You will be brought to this unit immediately after surgery.
- You will have continuous monitoring of your blood pressure, heart rate and breathing status.
- Pain medications and oxygen will be administered as needed.
- Your family member will be updated to come re-unite with you once your nurse determines that it is appropriate.
- You may spend 1-2 hours in PACU.

## Discharge:

- Your surgeon, nurse and orthopaedic team members will work together to determine when you are ready to be discharged home.
- Once cleared for discharge, your nurse will review your discharge instructions with you and your family.

# Recovery After Surgery

## **The Drive Home:**

Your friend or family member will drive you home. To help with comfort, move your seat back and reclined slightly. If you have a longer drive home, make sure you get out and walk for 10-15 minutes every 1-2 hours. This will help prevent blood clots and joint stiffness.

## **Showering:**

You may shower as soon as you are strong enough to do so. Your incision is under a waterproof bandage for 2-4 weeks. Once your incision is allowed to be open to air you may shower and allow the water to wash over the incision without soaking it. You should use mild soap.

## **Comfort:**

Pain is expected after surgery and during your recovery. Knee patients should expect an increase in pain/discomfort 2-4 days after their surgery. Take your pain medication as prescribed. Regular exercise, elevating the extremity and cold packs will also provide significant comfort.

## **Bruising:**

Typically occurs 3-5 days after surgery and usually resolves within 2 weeks.

## **Drainage:**

Drainage from your incision may occur for a few days after surgery. Please refer to your discharge instructions or call our practice coordinator for guidance on your wound care.

## **Incision Care:**

### **Standard Mepilex dressing:**

Standard Mepilex dressing can be changed 5-7 days after hospitalization or if it becomes soiled. Please refer to your specific discharge instructions for more guidance on your wound care.

### **Prevena Vac:**

This is a hi-tech dressing sometimes used to help promote healing. The prevena vac stays on for 1 week. After a week the prevena vac is removed and covered with a mepilex dressing. Your mepilex dressing can then be changed every 5-7 days or if it becomes soiled. At your follow up visit additional instructions on your incision care will be provided.

### **Swelling:**

You can expect swelling to peak around post-op day 5-7 and can last a few weeks after. Cold packs are helpful in reducing swelling during the first few weeks. Occasionally swelling may result in some blisters. These typically resolve a week or so after surgery.

### **Knee clicking:**

You may experience a clicking sensation after your knee replacement. This is due to the metal contacting the plastic in the prosthetic joint.

**Constipation:**

Common after surgery. Treatments for your constipation should include drinking plenty of water, increasing your mobility and taking your laxative as prescribed. If severe constipation occurs you may need additional bowel medications or suppository to help produce a bowel movement. **Please use our website for bowel care.** (Website)

**Nausea:**

This is common. Here are some tips if you experience nausea:

**Try:**

- Take your medications with food
- Eat small meals/ snacks
- Try to eat starches, salty food or potatoes
- Stay hydrated, drink 8-10 cups of water a day

**Avoid:**

- Foods that are high in fat or fried
- High fiber foods
- Foods that cause gas
- Foods with strong smells

**Emotional letdown:**

You may feel a little “down” following your surgery. This is common and may last for a few days.

**Low Grade Temperature:**

A low-grade fever (99 – 100.5 degrees F) is common after surgery. If your temperature is 101 or higher, please call your surgeon. You should seek medical attention for temperatures 101 or higher accompanied by chills, body aches, sudden nausea/vomiting, an unexplained increase in pain, disorientation, shortness of breath, drainage or increased redness around your incision.

**Frequent Urination:**

Frequent Urination is common after surgery. This is your body’s way of removing all the fluid you were given in during and after surgery. Male patients may have difficulty urinating. If this becomes a problem, please reach out to your physician.

**Sleep Disturbance:**

You may experience more pain/discomfort at night. It is normal for your sleep cycle to be disturbed for 6-8 weeks after surgery. Taking your pain medication or over the counter sleep aids before your bedtime may help with this.

**Endurance:**

You will notice a drop in your level of endurance and stamina after surgery. You should expect to be tired for approximately 6 weeks after surgery. Several weeks after your surgery you will feel ready to increase your activity and walk further distances.

**Sexual Activity:**

Sexual activity can resume when you are feeling ready. You should take an over-the-counter pain medication 30 minutes before sexual activity and you should choose a comfortable position. You can use pillows and rolled towels to help support your body in a more comfortable and safe position.

**Scar sensitivity:**

You may experience sensitivity on your knee causing kneeling to be uncomfortable. Using a folded towel or foam cushion will help make this more comfortable.

**For any post-op questions  
or concerns Please call  
our RN Practice  
Coordinator at 1-603-224-  
3368 ext. 4370**

# Life After Joint Replacement Surgery

## **Dental Care/Procedures:**

Although you will find different recommendations about antibiotics prior to dental work, it is our recommendation you take antibiotics prior to any dental work for the lifetime of your joint replacement. Likewise, please notify your surgeon of any invasive tests, procedures, or surgeries, in case an antibiotic is needed. These could pose a threat of infection to your total joint implant.

## **Follow Up Care:**

You will need to follow up with your surgeon or physician assistant at regular intervals following your surgery. Your first visit will be 3-4 weeks after your procedure.

## **Travel:**

You are discouraged from traveling long distances for the first several weeks after your surgery. If you must complete emergency travel, please discuss this in advance with your surgeon. You will likely set off metal detectors at the airport. Simply explain to the security screeners that you have a joint replacement.

## **Driving:**

You will not be able to drive while you are taking your pain medication. You can expect to return to driving about 2-6 weeks post-operatively depending on which leg is affected.

## **Returning to Work:**

You and your surgeon will discuss an anticipated time for your return to work during your follow-up appointments. Because different jobs require different physical activity levels, you and your surgeon will decide what is best for you.