

Total Knee Replacement

It's a Joint Effort



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# TOTAL KNEE REPLACEMENT

You will be having knee replacement surgery soon. It is normal to be nervous before a surgery. The good news is, knee replacement surgery is very common, and the surgery will allow you to move more freely with more comfort than you do now.

This booklet will answer many of the questions you may have about your upcoming surgery. It also includes important information on what to do before and after surgery to ensure the most successful result.

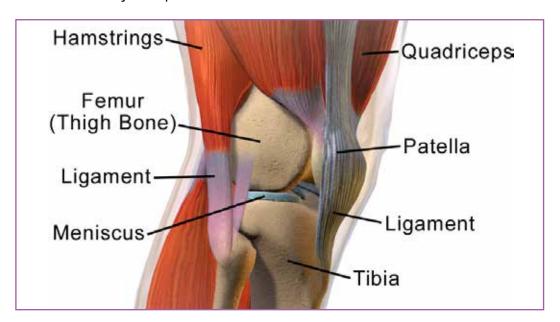
\*There is a list of important information you may want to review with your surgeon prior to your surgery at the end of this booklet.

## THE THIGHBONE IS CONNECTED TO THE SHINBONE

The knee is the largest joint in the body. It is made of the thighbone (femur) and the shin bone (tibia). The knee cap (patella) sits in a groove on the femur and supports the tendons over the top of the knee.

Muscles, tendons and ligaments surround the knee joint. These ligaments and tendons keep the knee moving in the right direction.

A thin membrane (synovial membrane) surrounds the knee joint. It produces tiny amounts of fluid that lubricate (oil) the joint. A shiny, smooth substance called articular cartilage covers the ends of the bones. The cartilage provides a smooth surface on your bones that makes movement easy and painless.



The knee and elbow are hinge joints. These are joints made of two bones that meet end-to-end. The hinge action of the knee allows us to walk, run, climb steps, kneel and sit. Can you imagine how hard it would be to get into your car without bending your knees?

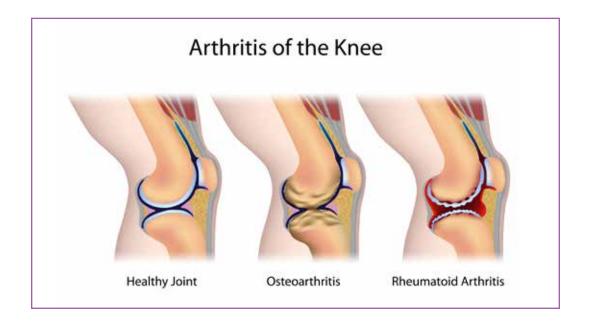
## SOME REASONS FOR KNEE SURGERY

An injury, disease or normal aging can cause articular cartilage to become thin, rough or worn. When it does, the two bones begin to rub together. This results in a slow wearing away of the bone surface, which can cause pain and stiffness.

#### **Arthritis**

Arthritis is a disease which affects millions of people. Arthritis is a "wearing away" of the joint surface. There are three common types of arthritis that affect the knee:

- Osteoarthritis occurs as the articular cartilage becomes thin due to aging. Osteoarthitis can run in families.
- Rheumatoid arthritis may affect many parts of the body including the synovial membrane in joints. The diseased membrane makes large amounts of fluid which thins the articular cartilage and makes the knee swell.
- **Traumatic arthritis** may occur at any age. This type of arthritis is caused from an injury to the joint which damages the articular cartilage.



## **BEFORE YOUR SURGERY**

## **Getting Yourself Ready**

Due to COVID 19, the pre-operative classes were cancelled and have not been restarted at this time.

We currently have a video as a replacement for our in-person claseses. The video is very informative and should be watched by all patients planning to have joint replacement surgery.

#### Go to: www.rsfh.com/orthopaedics/joint-replacement

Scroll down the page to Patient Education Resources and click on Joint Replacement Surgery Patient Education Video.

If you have difficulty accessing the video, please contact:
Sandy Wilkin, RN
Patient Care Coordinator
(843) 724-2149

#### **Discharge Plan**

Your discharge plan should be in place prior to your surgery. Your goal at discharge should be to go home either the day of surgery or the next day, depending on your discussion with your surgeon. When you are discharged home, we will set up home health physical therapy (if ordered by your physician). These services will usually start within 48 hours of discharge.

If you will not be going to your home, please have a backup plan. Skilled nursing facilities (nursing homes) are sometimes an option, but there is no guarantee that you would be able to go to one after surgery. Insurance guidelines will often dictate your coverage and benefits. A list of skilled nursing facilities is available online at: www.medicare.gov.

## **Preparing for Surgery**

You will need to wash your entire body with a special soap several days before your surgery. The soap will be given to you at your surgeon's office once your surgery has been scheduled. The soap will help prevent infection during your hospital stay.

Take any supplements your doctor may order.

\* If you smoke, now is the time to quit! Studies have shown that smoking GREATLY increases your risk of infection. Studies have also shown that bones heal much faster in non-smokers.

## **Preparing Your Home**

There are a few small changes you can make in your home that can make your recovery more comfortable.

- Think about the room you are going to sleep in. Is it on the same floor as the bathroom and kitchen? If not, is the person caring for you able to carry meals upstairs?
- Put everything you might need on a bedside table so that it will be within easy reach. Make sure to include a phone and a lamp.
- Prepare and freeze healthy meals ahead of time so that you won't have to worry about cooking.
- Sit in several places such as the side of your bed, toilet and your favorite chair. If it is hard to stand up after sitting down, you may want to change the height of your seat.

## **Getting Ready for The Hospital**

There are several items you will want to bring to the hospital to make your stay as safe and comfortable as possible. It's also a good idea to put your name on everything you take to the hospital.

Please plan to bring:

- A list of all medications you take (including over-the-counter meds)
- A list of any allergies you have (to food, clothing, medication, etc.) and how you react to each one
- Glasses, hearing aids and any other items you use each day
- Toiletries such as toothpaste, deodorant, etc.
- Loose comfortable clothes for therapy; short sleeve shirts and shorts or pants with an elastic waist band are recommended
- Knee length robe or cover-up for walking in the hall
- Shoes with closed-in heels and non-slip soles
- Two wheeled rolling walker
- CPAP machine if normally used

#### **Consent Form**

Before surgery you must sign a consent form. This is a legal paper that says your doctor has told you about your surgery and any potential risks. By signing this form, you are saying that you agree to have the operation and know the risks involved. Be sure to ask your doctor any questions you may have about the operation and the results before signing this form.



## **Tests Before Surgery**

Your orthopaedic surgeon may have you see your family doctor or the pre-op clinic for surgical clearance. It is important that your blood levels be within a certain range before surgery. Your surgeon will order blood tests to make sure you are healthy and ready for surgery.

## The Night Before Surgery

Many surgeons prefer that you do not eat or drink after midnight. Check with your doctor or nurse about what is expected. If you take insulin, heart or blood pressure pills daily, discuss this with your doctor or nurse. They will make sure you do not miss any medication that you need.

## THE MORNING OF SURGERY

## Once you are registered you will be escorted to the pre-op area where you will be asked to remove:

- Dentures, hearing aids
- Hairpins, wigs etc.
- Jewelry
- Glasses, contact lenses

Please be sure to have the person staying with you during the surgery keep your personal belongings.

You will be able to visit with your family before going to the operating room. During this time, you will be dressed in a hospital gown (nothing else). If you need to, you should use the bathroom before you are taken to the operating room. You will ride on a stretcher (a bed with wheels) to the operating room. Once you are in the operating room, your knee will be cleaned with a special soap.

As you are taken to the operating room, someone will show your family the waiting area. From time to time, a member of the surgical team will update your family on your progress. Most of the time, knee surgery lasts from 45 minutes to 2 hours.

You will spend some time in the recovery room after surgery, so your time in the surgical area can be as long as 2 to 3 hours. Your doctor will tell you about how long your surgery will take. When the surgery is complete, the doctor will call your family or meet with them in the waiting area to give their report.

#### **Anesthesia**

Your surgeon and the anesthesiologist will help you choose the best anesthesia. No matter what type of anesthesia you have, rest assured that you will not feel pain during the surgery. The types of anesthesia you may have are:

- **Spinal:** You are numb from the waist down from medication injected into your back. A femoral nerve block is also used 99% of the time for our knee replacement patients.
- **General:** You are put to sleep and is used as our alternative to spinal anesthesia.
- \* Anesthesia may cause nausea. Extreme cases of nausea can be treated with medication.

#### **Other Procedures**

You will have an intravenous catheter (IV) placed in your arm. This lets your doctor replace fluids lost during surgery and allows the staff to give you pain medication, antibiotics and any other medication you may need.

A surgical drain may come from your bandage site. This is a drain that helps reduce blood and fluid buildup at the incision. This tube will be removed one to two days after surgery. Your drains and IV catheters will be removed before you leave the hospital.

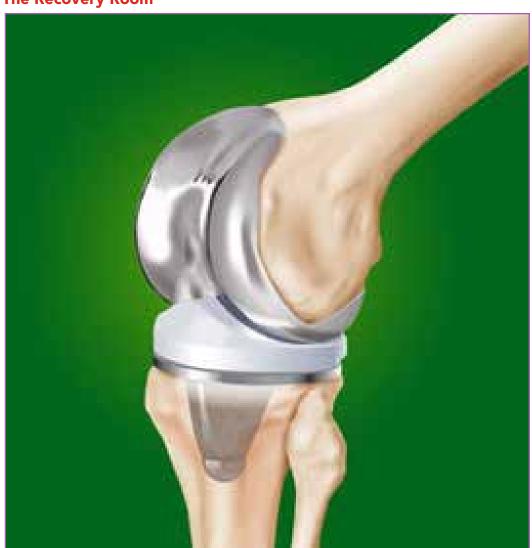


The surfaces of your knee joint will be removed and a new metal and plastic prosthesis will be inserted.

The femoral replacement is metal and covers the end of the thighbone. The tibial replacement has a metal stem with a plastic tray which glides on the metal femoral piece. The patellar replacement is plastic and glides in the groove of the femur. The incision is closed with stitches or staples, a bandage is put on, and you are taken to a recovery room.

## **AFTER SURGERY**

## **The Recovery Room**



After surgery, you will spend time in recovery. The length of time varies from person to person. It's usually about one hour. In the recovery room, your blood pressure and heart rate are watched very closely. Later, you will be taken to your hospital room.

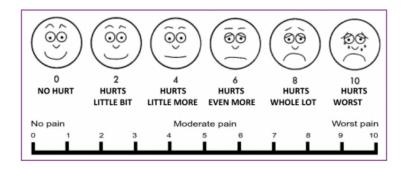
#### Pain

Talk with your doctor before surgery about your pain medication and options to help you feel more comfortable after surgery. Some options for pain control include pain medication, ice and relaxation techniques.

You will experience some pain. It is important that you begin moving around as soon as possible, and to do this your pain needs to be well managed. Do not wait to tell someone if you are hurting. Waiting may make it harder to relieve the pain. With proper pain management, you will be able to exercise and walk. This is important to your recovery.

Your nurse or doctor may use a pain scale to measure the amount of pain you are in. The pain scale helps to figure out how well the medications and/or treatments are working. Usually, your pain is rated on a scale between 0 and 10, where 0 is no pain and 10 is the worst pain. Your pain treatment is adjusted to the level of pain you are in so be honest.

\*Many pain medications can cause constipation. Talk to your care team about what you can do to help prevent constipation and what to do if this happens.



### **Breathing**

Right after your surgery, it will seem as if your nurse is always reminding you to take deep breaths and cough. It is very important that you do this at least every two hours. Deep breathing can help prevent pneumonia or



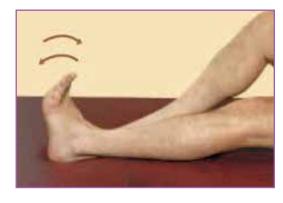
other problems that can slow down your recovery and lengthen your hospital stay.

Your doctor will want you to use a device called an incentive spirometer. This device helps you breathe in and out the right way. Using it regularly and correctly can help keep your lungs clear.

### **Preventing Blood Clots**

Blood clots called deep vein thrombosis (DVT) can occur after total knee surgery. Most of these are in the calf and not serious, but sometimes they occur in the abdomen or thigh. Even more rarely one of these higher clots can break off and block the blood supply to your lungs. This is called a pulmonary embolus (PE) and can be life threatening.

To prevent blood clots, you will need to do foot pumps every hour to push the blood out of your legs. Keep doing these after you go home. You are still at risk for getting blood clots weeks after joint replacement surgery. Walking



is the best activity to prevent blood clots.

You will have mechanical compression wraps on your legs or feet after surgery. These wraps keep the blood from pooling in your legs. Your doctor will also order a blood thinning medication to reduce the chance of blood clots.

#### **Movement**

Most people begin exercising their knee the day of or the day after surgery. A therapist will work with you on specific exercises to make your leg and new knee stronger.

As you begin to move about in your room, you will notice your toilet seat and chair are raised. This is to make it easier for you to get up and down from a sitting position.

Moving around helps prevent blood clots after surgery. While you are in the hospital, your care team will encourage you to get out of bed and walk often. When you go home, it is very important that you walk often because you are still at risk for blood clots for several weeks after surgery.

## BEFORE YOU LEAVE THE HOSPITAL

Your care team wants to ensure you are comfortable caring for yourself before you leave the hospital to go home. They will review with you how to:

- Get in and out of bed by yourself
- Walk down the hall using your walker or crutches
- Get in and out of a chair by yourself
- Manage steps at home
- Do your exercise program by yourself



## WHEN YOU GO HOME

You may be released the day of surgery or you could stay in the hospital one to two days. It all depends on what your doctor decides is best for you. When you leave your drains will be removed. You may have a pain pump called an On-Q pump to assist with pain management at home. You will also have a surgical bandage on your knee that will be removed by your home health physical therapist 7 to 10 days after your surgery.

#### **Incision Care**

Your staples or stitches will be removed about 10 to 14 days after surgery. Slight swelling of the knee is also common, but should decrease within a few days or weeks after your surgery. Your incision will heal and the swelling and bruising will get better over the next three weeks.

It is common to have some swelling, but increased swelling and redness after 3 to 4 weeks should be addressed with your surgeon. Your home physical therapist will exam the area and address any concerns regarding swelling.

Examine your incision each day and call your doctor right away if you notice any of these:

- Fever over 100 degrees F/37.7 degrees C
- Drainage from incision
- Redness around incision
- Increased swelling around incision
- Chest pain or congestion
- Increased knee pain with activity or at rest
- Problems with breathing
- Significant swelling of the whole leg



#### **Exercise**

Physical therapy at home will be arranged prior to your discharge and will start within 48 hours after discharge.

When you get home, continue the exercise program you learned in the hospital. Knee exercises should be done 2 to 3 times every day. Exercises are very important to help you get back the range of motion and strength in your knee. You will regain your strength and endurance as you begin to do your normal daily routine. Using ice for 20 minutes after every exercise session will reduce the swelling and pain in your knee.

#### **Activity After Knee Replacement**

Your new knee is designed to return you to an active lifestyle. Talk with your doctor about the activities that are important to you such as: walking, dancing, bike riding, golf, driving and sexual activity. High impact exercises such as jogging may cause your new knee to loosen.

### **Home Safety**

Special care should be taken when you get home. Some common things in your home may now be a danger to you. To prevent falls, remove or watch out for:

- Long phone or electrical cords on the floor
- Loose rugs or carpet
- Pets that run in your path
- Water spills on bare floors
- Wet bathroom tile or slippery floors
- Ice or mildew on outdoor steps

## YOUR NEW KNEE

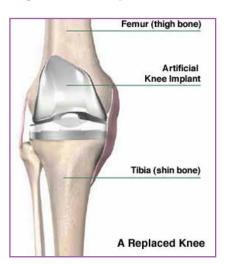
Congratulations on your new knee. The following are some important safety tips following knee replacement surgery.

- Call your doctor right away, if you have a fever over 100 degrees F/37.7 degrees C during your recovery.
- Keep your checkup appointments with your doctor. It is important to monitor the healing and function of your new knee.
- Your new knee is a large, foreign substance to your body. Germs from other areas can move to the new knee and cause infection. Call your family doctor at once if you have any signs of infection (urinary tract infection, abscessed teeth, etc.).

## **Normal Right Knee**



**Right Knee Replacement** 



## **Preventive Antibiotics After Total Joint Replacement**

Taking a prophylactic (preventive) antibiotic prior to procedures that might cause bleeding is recommended for the rest of your life. However, if you don't want to take prophylactic antibiotics do not worry about it. There is recent evidence that does not support their routine use.

If you do take prophylactic antibiotics the following are usage suggestions.

#### • Dental procedures:

- The prophylactic antibiotics recommended are 2 g of oral cephalexin, cephradine or amoxicillin or 600 mg of oral clindamycin one hour before dental procedures.
- Either your dentist, other healthcare provider planning a procedure or your joint replacement team can prescribe the antibiotics.
- Bacterial infections: Antibiotics are recommended to prevent the spread of germs to your joint replacement for all bacterial infections, especially of the skin close to your joint.
- Colonoscopy: Antibiotics are not generally recommended.
- Cystoscopy (urinary bladder scope): Antibiotics are only needed if there is an infection.
- Eye surgery: No special antibiotics are needed.
- Other procedures: Do what the provider usually does or recommends for your situation or call your orthopedic surgeon.

#### **Metal Detectors**

Usually patients with joint replacements will set off metal detectors at the airport, DMV and courthouse. It is reasonable for you to inform the TSA screening agent at the airport that you have had a joint replacement; however, you will still require screening and will need to follow the directions of the screening agent. There are millions of individuals with joint replacements, and screening protocols recognize that people who have had joint replacements may set off detectors. You do not need to carry specific documentation to prove that you have a joint replacement. Metal detector screenings follow universal protocols that allow for people with joint replacements to proceed after confirmation that no threat exists.

#### **Driving**

You can drive 4 to 6 weeks after surgery, and sometimes sooner, especially if it is the left leg. There is some literature that states that your reaction time will not be back to normal prior to six weeks. You should not drive while on narcotics and should discuss when you may begin driving with your surgeon.

## COMPLICATIONS TO TOTAL KNEE REPLACEMENT SURGERY

Total knee replacement surgery is primarily a pain-relieving procedure; however, it may not relieve all pain, and there is a possibility of residual stiffness and swelling.

Although complications are relatively rare (1-2%), and it is impossible to list every possible complication, patients may experience a complication in the post-operative period. These include very serious and possibly life threatening complications such as heart attack, stroke, pulmonary embolism and kidney failure. Nerve injury causing loss of feeling or function, or unintended bone loss or fractures can occur.

Stiffness or loss of motion can also occur.

Infection (1%) is one of the most debilitating complications and often requires prolonged antibiotics with several additional surgeries to rid the infection.

A blood clot in the leg is also a relatively common complication requiring some type of blood thinner following surgery to reduce the incidence.

The implants can also fail over time due to normal wear or loosening of the components, but this generally occurs many years after surgery.

While there are several possible complications, the overwhelming odds are that you will have a successful outcome that will improve your quality of life.

# WHAT YOU SHOULD KNOW AND DISCUSS WITH YOUR SURGEON

1. Who do I call if I have questions before I go to the hospital?

·	
Name	
Phone#	
2. The daily medications you should or should not take on the day surgery.	of
3. Goal at discharge is to go home. Talk with your surgeon if you have concerns.	
4. Be sure to get a two-wheeled rolling walker before surgery and bring it to the hospital with you.	
5. Name, dose and frequency of my blood thinner upon discharge.	
6. Name of your support person who will be at the hospital on day discharge:	of
Name	
Phone#	
7. Who can I call if I have questions after I leave the hospital?	
Name	
Phone#	
Additional Questions/Concerns	



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