# Total Knee Replacement Surgery

## Dr. Brooker

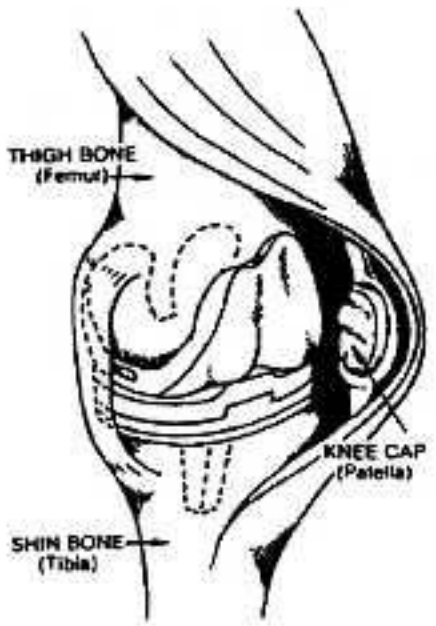
**<u>PLEASE:</u> Bring all of these papers with you when you come to the hospital for surgery.**

**Your nurses and physical therapists will review them with you, and add information specific for YOU and your special needs.**

# Total Knee Replacement

The knee is a complex, hingelike joint. In a healthy knee, cartilage acts as a cushion between the thigh bone (femur) and the shin bone (tibia) absorbing the stress as we walk or run. The cartilage's smooth surface is lubricated by joint fluid and that allows free and easy movement of your knee. Destruction of this cartilage cushion by osteoarthritis, rheumatoid arthritis, gout, injury or poor ailgnment causes the cartilage to wear away, become rough and pitted. This causes pain, swelling and stiffness. When all the cartilage is worn away, the bones rub together restricting the movement of the knee and causing pain when you walk or move.

Pain, swelling and stiffness in the knee are not normal, nor is it a natural process of aging. There is no medication or treatment that will regenerate the cartilage on the bone. Total knee replacement (TKR) is a surgical procedure in which injured or damaged parts of the knee joint are replaced with artificial parts. The end of the femur, top of the tibia and the surface of the knee cap (patella) are shaved off to provide flat surfaces that are shaped to precisely fit the artificial knee (prosthesis). The prosthesis is then cemented to the bone surfaces. The components of the artificial knee are made of titanium or chrome cobalt covered with an interchangeable plastic (polyethylene) surface. These new surfaces of your knee provide smooth painless movement.




Results of TKR have been excellent. In cases where there are no complications, more than 90% of people having TKR report no pain after recovery from surgery. The other 10% have their pain greatly relieved and experience only minor or occasional periods of soreness. Over 80% of patients need no help walking. A TKR is not a normal knee but will improve your quality of life. Your new knee will allow you to engage in activities of daily living and low impact recreational activities in much greater comfort (with little or no pain).

There are risks with any surgical procedure. Obesity, diabetes, chronic steroid use, heart or chronic lung disease will all increase your risk for any surgery. You will have a history and physical before surgery to identify any additional medical conditions that may complicate your surgery.

# Total Knee Replacement
# Risks and Benefits of Surgery

In addition to the risks of anesthesia, which can even cause death, the most common risks and complications of total knee surgery are:

**Blood clots:** The most common complication is blood clots in the legs which may result from your decreased mobility causing sluggish movement of blood through your leg veins. Exercises, compressive hose along with compressive leg pumps are used to prevent these clots. Despite these precautions, blood clots may still occur. They are, however, not usually dangerous if recognized and treated appropriately. There is a rare chance that a blood clot could dislodge and travel to the lungs (pulmonary embolism). This is a treatable condition, but is a potentially serious problem and very rarely it could result in death.

**Infection:** The risk of infection in first time knee replacements is 3% nationwide. Before surgery you will be given intravenous antibiotics to prevent infection. Also, infections can spread to your artificial knee joint from other infected areas of your body. Therefore, you may need to take antibiotics before dental work or surgical procedures to prevent future infections.

**Artery or nerve damage:** This is a very rare complication. A blood vessel can be repaired surgically. If the nerves of the leg are injured, they usually recover in time.

**Hematoma:** Rarely, people may continue to bleed several days after surgery. If this occurs and causes a large collection of blood to accumulate, the wound would need to be reopened under anesthesia to let the blood out.

**Loosening:** The major reason artificial joints eventually fail is a process called loosening. This is when the bond between the cement and bone breaks down or loosens its attachment to the bone. A loose prosthesis causes pain and may require another operation to revise the knee replacement.

**Formation of scar tissue and stiffness:** About 2% of people will form excess scar tissue in their knee after surgery. This may cause stiffness in the knee making it difficult to get full range of motion or painfree walking. This is treated by either removing the scar tissue or having your knee moved through a full arc of motion while you are anesthetized.

**Complications from blood transfusions:** About 1 in 7 people will require a blood transfusion. All blood donated for transfusion is screened for AIDS, syphilus, Human T cell leukemia virus, and hepatitis B and C. The risk of Aids is 1 in 676,000 units transfused. The risk of hepatitis B is 1 in 66,000 and hepatitis C is 1 in 103,000. The risk of a hemolytic transfusion reaction is 1 in 12,000.

# Total Joint Replacement
# Pre-Operative Instructions

**General Information: Each** person is an individual and may not conform exactly to each of these guidelines.

1. If you develop a medical problem, (cold, flu, tooth infection, etc.) within 1 week of surgery, contact the doctor's office. It may not be safe to proceed with the scheduled surgery until you are well.

2. **If you donate your own blood:**

   - You should start taking iron replacement after your first donation. Ask your pharmacist for 325 mg ferrous sulfate or ferrous gluconate and take it twice a day. You do <u>not</u> need a prescription.

     Iron may be constipating for some people, and you may need a stool softener. If the iron irritates your stomach or causes diarrhea that lasts 4 days, stop the iron.

   - Call Coffee Memorial Blood Bank to donate your own blood. Some helpful hints!
     - You may start 42 days prior to surgery. That's how long red blood cells remain alive and useful to you.
     - You may donate as often as every 7 days.
     - You must complete your donation at least 7 days prior to surgery.
     - Usually people donate 2 – 3 units of blood.
     - Eat and drink plenty of fluids prior to donating each unit. It is also recommended that you bring someone with you.
     - There is no direct cost to you. The hospital accepts the cost and includes it in your total hospital charges. Therefore, the cost should be covered by your insurance.

3. On _____(14 days prior to surgery), you MUST:
   - Stop taking all medicines that thin your blood. These medicines include Plavix, Ticlid, Persantine (Dipyridamole), Trental, aspirin, any medication containing aspirin, and all arthritis medicines (for example: Motrin, Aleve, Naprosyn, Daypro, Voltaren, Vioxx, or Celebrex).
     The use of these drugs increases bleeding during the operation and the risk of bleeding after the operation. *If you are taking Coumadin, stop it 5 days before surgery.*

     You may take Tylenol (acetaminophen) for pain.

   - STOP SMOKING>Studies have shown that this will greatly decrease the chance of pneumonia and other respiratory complications after surgery.

4. One week before surgery, you will be scheduled to come to the office to obtain a medical history and a physical examination. Bring a list of the following:
   - All your medications and the dosages
   - Previous surgeries
   - Any allergies

5. Start getting your home ready:
   - Move your bed to the main floor if it is upstairs. If you have a waterbed, it should be replaced with a box spring and mattress.
   - Take up all scatter rugs and tape down edges of large area rugs.
   - Keep walkways clear of furniture, electrical and phone cords, and toys.
   - A handrail is recommended if you have steps in your house.
   - An apron with pockets, shoulder bag or knapsack is useful to carry items around the house.
   - Always use rubber mat or non-skid strips in the tub and/or shower stall to prevent slipping.
   - Precook and stock up on groceries.
   - Place night-lights in dark hallways and have a flashlight at hand for nighttime trips to the bathroom.

6. Get a good night's sleep prior to surgery. If you are in the habit of taking sleep medication, take it before midnight. **DO NOT EAT OR DRINK ANYTHING PAST MIDNIGHT THE NIGHT BEFORE SURGERY.** This means no gum, mints, water, etc. Otherwise the surgery will be cancelled.

**DAY OF SURGERY**

1. Only take the following medications with a small sip of water:

   _____

   _____

2. Leave valuables and jewelry at home. Wear flat shoes and comfortable clothing.

3. Bring a list of your medications, toiletries, rubber-soled slippers or sneakers (no sandals). If you desire, you may bring a bathrobe, nightgown, pajamas, shorts or jogging pants. Most people prefer to wear the gown the hospital supplies.

4. Come to the hospital and report to Registration. *If you came for your pre-admission visit, go directly to the Day Surgery Unit to prepare for and wait for surgery.* We cannot give you an exact time for your surgery, as it is impossible to maintain a rigid schedule in the operating room.

5. Private rooms are limited. Medical condition will take preference over a patient request. However, we will do everything possible to accommodate your needs/requests.

6. Before your surgery, you will be taken to the Holding area. There you will meet your anesthesiologist and discuss the type of anesthesia you will receive.

7. Unless you have a history of multiple back surgeries, severe spinal arthritis or certain types of heart problems, our recommendation for total joint replacement is epidural anesthesia. Epidural anesthesia is currently used for deliveries and removes pain while still allowing you to move.

8. A small catheter is placed in your back just outside the spinal canal. Anesthetic is placed in the catheter during the surgery and often up to 48 hours after surgery, thereby eliminating the need for strong narcotics. This technique is safe and associated with fewer complications than general anesthesia. Obviously, if you are unable or reluctant to have an epidural, other anesthetics are available.

9. Before surgery, a Foley catheter will be placed in your bladder and will remain for 2 days after surgery.

10. Your family will be given your belongings to take to your room on 4East. They will then wait in the surgical waiting room while you are in surgery.

11. Note any questions you wish to ask your doctor, anesthesiologist or nurse the morning of surgery.

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# After Surgery

Day of surgery: This is a day of rest for you.

- Pain Medications: You need to notify your nurse when you start to feel discomfort so he/she can provide assistance. If you have an epidural catheter, your pain medication will be managed by the anesthesia pain management team in cooperation with your nurses.
- You will have an ace bandage on your operative leg, a knee brace to keep your knee straight, and ice on your knee to reduce swelling, if you request it.
- You will have a white support stocking and a pneumatic compressive wrap on the non-operative leg to prevent blood clots.
- You will have an IV, a catheter in your bladder, a heart monitor, and oxygen.

Day 1 after surgery:

- Early in the morning, your blood will be drawn to assess the amount of bleeding that occurred from surgery. This will help determine if you will need a blood transfusion.
- The ace bandage will be removed.
- You will start using a continuous passive motion (CPM) machine to gradually increase the flexion in your knee. **The easiest time to regain motion is the first few days after surgery.**
- A physical therapist will visit and begin to teach you exercises, have you sit on the side of the bed and walk in your room with a walker or crutches, if you are able.

Day 2 after surgery:

- Your incision dressing will be changed.
- The epidural catheter, IV PCA, bladder catheter, oxygen and heart monitor, if you have them, are usually removed.
- Physical therapy will have you continue your exercises and walking, increasing your distance and endurance.

Day 3-4 after surgery:

- You will be discharged home if you, your therapist and Dr. Brooker feel you are safe walking with a walker or cane and can manage at home.
- If you are not ready to go home, you will be transferred to a skilled nursing unit (SNU). At the SNU, you will wear your own clothing. Bring comfortable clothing like jogging suits, sneakers, t-shirts, slacks or shorts. When you are able to dress and bathe yourself and walk safely with a walker, you will be discharged home.
- If you choose to go to IHS, transportation will be provided for you.
- At the SNU, there will be an internal medicine physician responsible for your care. Therefore, Dr. Brooker will not be seeing you there.
- If you do not want to go to the SNU, but you are not independent, you may qualify for home health care for a brief period.
- When you are discharged to home, whether it is from the hospital or SNU, you will be provided with a walker, cane or crutches.