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Section 3: After-Hospital Care and Rehabilitation

Following your successful knee replacement surgery and hospitalization, you may have questions. This information book is designed to help answer those questions and serve as a continual reference for the care of your new knee.

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Going Home

Car

Usually you will be able to go home from the hospital by car after joint replacement surgery. A staff member will escort you to your car and help you get in safely.



Car Transfers/Driving/Riding

Position the seat as far back as possible. You may recline the seat slightly if desired. Get in on the passenger side of the front seat. Back up to the car and sit on the edge of the seat. Scoot in at an angle, and assist one leg in at a time; reverse to exit the car.

You may ride in the car 60 to 90 minutes at a time. If your trip by car will be a long one, it is a good idea to do your ankle pump exercises frequently and plan to stop every 60 to 90 minutes to stretch, change position and walk around using your walker or crutches.

When your doctor gives you permission, you may drive. This is usually in 3-6 weeks, depending on your leg strength, your leg control and reaction time, whether your car has an automatic transmission, power steering, power brakes and which leg was operated on.

Alternate Transportation

A care manager can assist with alternate transportation as needed. Costs of a wheelchair-van or other transport may not be covered by your insurance, and payment is your responsibility at the time of service.

Airplane

If you need to travel by air, it is important to request a bulkhead or first class seat so that you have enough room to stretch out your leg during the flight. You should have a travel companion to help with luggage and getting on and off the plane. It is a good idea to do your ankle pump exercises frequently during the flight.

Travel

It is a good idea to plan to stay at home during your first 4 to 6 weeks after surgery. Travel in the first month after surgery by plane or long car rides can increase your risk of blood clots.

Your Surgical Wound

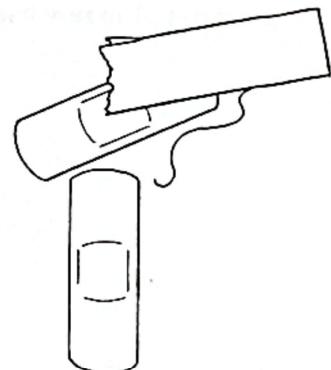
Your knee could remain somewhat red, warm, and painful for 4 to 6 weeks following your knee replacement surgery. Your knee may swell for 2 to 3 months after surgery. Some bruising down your leg is not uncommon. In general, your incision should be dry by the time you leave the hospital, but it is not unusual for knee incisions to drain for 5 to 7 days after surgery. We ask that you keep a dry sterile gauze bandage covering your incision until it is completely dry, and change the bandage daily. Some spotting on the bandage is normal for up to 1 week.

You may shower when you get home, provided you are stable in the shower and you keep the wound dry with plastic wrap and tape. Once your incision is completely dry for 24 hours, meaning absolutely no spotting when the bandage is changed, you may remove the bandage and begin showering without the plastic protection. No baths, no soaking, just showering. Do not scrub your incision. Just use light water and pat dry immediately. Soaking the wound can lead to healing problems and possibly infection. The incision will fade with time, and no special creams or lotions are necessary.

If you have staples in your incision line, they will need to be removed about 2 weeks from the day of your surgery. A home health nurse or physical therapist can remove staples. Once the staples are removed, small pieces of tape may be placed over the incision. These will generally fall off in 1 week.

If you do not have staples, your wound was closed with absorbable sutures, and nothing needs to be removed. The small pieces of tape will curl and fall off.

You should call your doctor if you have persistent or new drainage in the wound; increasing warmth, swelling, or redness that does not go away with simple elevation, rest, and ice; or constant pain that is increasing and not relieved by pain medication.



Preventing Blood Clots

The most common complication following joint replacement surgery is blood clots in the veins (DVT).

You should wear the TED hose full time for 2 weeks, taking them off to bathe and occasionally to air your skin. After 2 weeks, you may stop wearing them at night, but continue to wear them during the day for an additional 2 to 4 weeks if you notice swelling in the leg or even longer if you are at high risk for developing blood clots.

Activities such as foot and ankle pumps are an important method of reducing the risk of blood clots, and are a good practice to continue when you go home.

The symptoms of a blood clot are continuous and painful swelling of the leg (calf) that does not improve with rest and elevation. **If you have increasing calf pain or persistent increased warmth, redness, or swelling, please contact your doctor immediately.**

Pain Medications

When you leave the hospital or skilled care facility, you will be given a prescription for pain medicine.

The medicine you are given will generally be the medicine that worked best to control your pain while in the hospital. The choices generally are Vicodin, Percocet, Darvocet, or Tylenol with Codeine. These medicines can be taken every 4 to 6 hours. All of these medicines contain some amount of Tylenol. **Do not take regular Tylenol or acetaminophen in addition to these medicines.**

Pain medication is needed for the first few weeks after surgery. Most patients are able to wean themselves from the medication during the first month after surgery.



If your pain medication begins to run low (2 to 3 days left), please **call your pharmacist, who will contact your surgeon's office.** Plan ahead. Try to avoid calling at night or on the weekend. Please anticipate your needs early in the week.

Expectations are that you should be off pain medication within 6 weeks. Some exceptions can be made. If your pain situation has more to do with chronic pain than post-surgical pain, you may be referred back to your primary physician at 6 weeks.

Sleeping medication is not prescribed on a routine basis. The reason is that pain medication and sleeping medication combined can cause confusion. This would increase the risk of falling and/or injuring your knee. Try simple methods to get better sleep while at home, such as going to bed the same time every night, drinking warm milk (it works for adults, too), not exercising or showering at night, and avoiding caffeinated drinks close to bedtime.

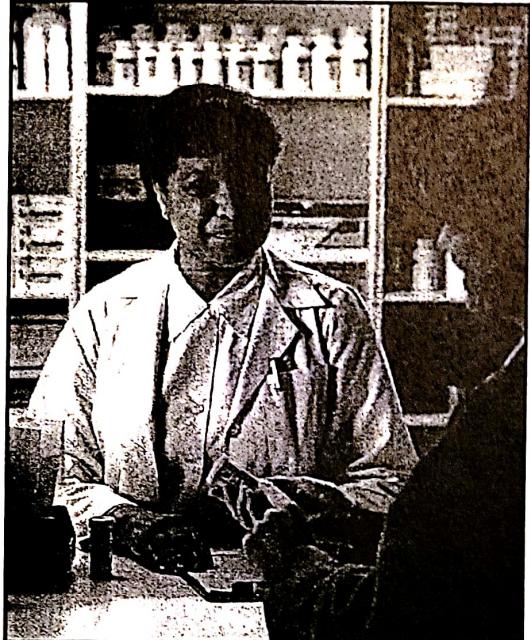
Other Medications

Anti-inflammatory Medication: Check with your surgeon before taking any NSAID medications such as Ibuprofen, Advil, Motrin, Aleve or Naprosyn.

Iron: Your surgeon may place you on an iron supplement for 1 month after surgery, either a multivitamin with iron once a day or ferrous sulfate 325 mg 3 times a day. This will help your body rebuild the red blood cells lost during your surgery. Remember that iron can cause constipation, and you should, therefore, use an over-the-counter stool softener while taking iron.

Hormone Replacement: These hormones have been shown to slightly increase the risk of blood clots; therefore, we usually stop them during your hospital stay. Patients with adverse reactions to stopping their hormones may need to resume their hormones sooner.

Other Medications: Any modifications made to your regular medication list during your hospitalization should be under the supervision of your primary medical doctor. Please call your medical doctor when you are discharged from the hospital to discuss any changes.



Activities in the First 6 Weeks After Your Knee Surgery

The first 6 weeks following your joint replacement is a time to focus on you and your new knee. You will gradually find the pain easing, and your ability to get up and move around will slowly improve. You will gradually increase your activity level. For the first few days, you may wish to move only around your house and participate in simple activities such as dining with family and watching TV. Feel comfortable to venture outside on even, dry pavement. Riding in a car is acceptable. Always remember the proper method of getting in and out of a car.

In general, you have 6 weeks to regain your motion in the knee joint after surgery. After that time, the bleeding and swelling in the joint begin to form scar tissue that can inhibit motion. It is important to perform your exercises daily, even when you are not in therapy. You should avoid letting anyone force your knee into flexion, as that can injure the knee and lead to a slower healing process. Active motion is the best for you to regain your range of motion. Sometimes knees will have to be manipulated under a repeat anesthetic, if the motion is poor at your six week appointment. This carries certain risks and is better avoided.

Some stiff knees simply cannot be made to move. It is known that the number one predictor of motion after total knee replacement is range of motion *before* knee replacement. That is, stiff knees tend to remain stiff. Patients who have had previous surgery are at a higher risk of post-operative stiffness and need to work very hard to regain their motion.

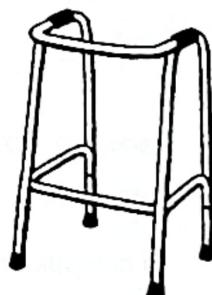
If you do what is asked by your therapist, most patients will enjoy a knee that feels good and moves well. We have listed below the **Dos and Don'ts** following surgery for the first 6 weeks. These are general guidelines. Your surgeon may make exceptions according to your specific requests.

After Discharge

- DO NOT** Sleep with your knee bent, or it will stay bent.
- DO NOT** Cross your legs when you are lying down, sitting or standing.
- DO NOT** Sit on low stools, low chairs and low toilets. Elevate low seat heights to reduce the strain on your knee.
- DO NOT** Sit in armless chairs. Chair arms are needed to aid you in rising to a standing position. Do not sit continuously for more than 1 hour.

- DO NOT** Sit in a bathtub until at least 6 weeks after your surgery. You may shower in a tub when your wound is completely dry, using a tub or shower bench. Ask the therapist to show you the best way to use the bench.

- DO NOT** Drive a vehicle for 3 weeks after surgery. Check with your surgeon if you have questions.



Activities in the First 6 Weeks After Your Knee Surgery

(Continued)

After Discharge

- DO NOT** Take chances. Be careful walking on uneven ground, ice, snow, and tiled or waxed floors. Remove all scatter rugs from your house. Wear rubber soled shoes.
- DO NOT** Return to work until you have discussed this with your surgeon.
- DO NOT** Allow anyone to forcibly bend your knee.

- DO** Have someone help support your leg when you are getting in and out of bed until you have enough strength to lift your leg without assistance.
- DO** Get up from a chair by first moving to the edge of the chair. Place your operative leg in front of you as you rise, and keep the other leg well under the chair for better balance. Use a rocking chair if available.
- DO** Use your raised toilet seat if indicated.
- DO** Get up and move around the house every 1-2 hours. Take a longer walk every day, and gradually increase the distance (up to 1 mile if able).
- DO** Your exercises several times a day.
- DO** Limit yourself to light housework, with no bending or lifting until directed by your surgeon.
- DO** Use a transfer tub bench as instructed.
- DO** Resume sexual activity when you are comfortable. Discuss precautions with your surgeon or therapist.

Returning to Normal Life Activities

After 6 weeks of limited activities, you will enjoy gradually returning to your normal life style over the next 3 to 6 months.

You may be weaned from your walker or crutches to a cane around 3-4 weeks after surgery under the guidance of your physical therapist. Most patients will limp for 1 to 2 months after surgery because of muscle weakness. Use a **cane in your opposite side hand** until your limp is gone. Ask your surgeon if you have concerns about specific activities.

Activities 6 Weeks After Surgery

- **You may** massage your incision with vitamin E oil, cocoa butter or alcohol-free lotion.
- **You may** begin to ride a stationary bike, limiting yourself to 5 minutes, and then gradually increasing your time as you can tolerate it. Gradually lower the seat to increase your knee flexion.
- **You may** begin swimming pool exercises. We recommend walking in chest high water. Use steps rather than a ladder to get in and out of the pool.
- **You may** drive a car. Please practice in an empty lot or road first. Your insurance company may not cover you in case of an accident unless you can demonstrate that your operative leg is as strong as your non-operative leg.
- **You may** increase your walking distance using one crutch or a cane if still needed.
- **You may** continue to use the tub bench, transitioning to sitting in a bathtub when comfortable.
- **You may** continue your range of motion exercises expecting the knee to slowly improve.
- **You may** start putting at golf.

Returning to Normal Life Activities (Continued)

Activities 3 Months After Surgery

- You may check with your surgeon about other specific recreational activities.



Activities 6 to 12 Months After Surgery

- You may begin playing golf or doubles tennis.
- You may begin using other exercise equipment.
- You may begin long hikes.

Activities to Be Avoided With Your New Knee Replacement

You should not run long distances, jump, lift excessively, or ski the moguls. Your artificial knee is subject to wear and tear and could wear out, break, or loosen if not treated with care or respect.

Follow-up Examinations

After your surgery, your surgeon will want to see you in the office at 6 weeks, 3 months, 1 year, and then every 2 years.

At the 6-week visit: You will have x-rays taken and your surgeon will evaluate your strength and range of motion.

At the 3-month visit: X-rays may be taken, and your surgeon will assess your walking ability, strength, and range of motion.

At your annual follow-up: X-rays will be taken. Your range of motion and walking abilities will be assessed. At each successive follow-up, x-rays will be taken of your knee replacement. It is important to have x-rays taken routinely, because problems can occur in the knee joint that you might not feel. Occasionally we will need to operate again (average 10 to 15 years). Please remember to keep your follow-up appointments.

Infection Control

In the United States, more than 270,000 hip and knee replacements are performed each year. The infection rate for these procedures is very low, averaging 0.5%. Orthopedic surgeons performing these operations attempt to lower the surgical infection rate by using antibiotics during and after surgery, special operating rooms and self-contained exhaust suits.

Infections that develop around the knee weeks or months after discharge are also rare. Infections that occur 6 months or longer after surgery are usually the result of an infection elsewhere in the body. Urinary tract, pulmonary (lungs), skin, and dental infections are potential causes of such an infection and therefore, should be treated aggressively.

It is very important to let your dentist and primary physician know that you have an implanted knee prosthesis so they can prescribe antibiotics before and after dental or diagnostic procedures if there is a risk of infection.



The knee is a complex joint that contains many small bones, tendons, and ligaments. The knee is often referred to as a "hinge joint" because it is able to bend and straighten. It is also able to move from side to side, which allows for a wide range of motion.

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Frequently Asked Questions About Knee Replacement Surgery

Q: How does the surgeon decide if I need a total knee replacement?

A: The decision is based on the degree of pain you have, how difficult it is for you to walk, and how much these problems interfere with your activities or quality of life. Other important factors in the decision include evaluation of your x-rays and your health status.

Q: How long does the surgery take?

A: Approximately 2 hours, depending on the condition of your knee at the time of surgery.

Q: Why does my knee click and clunk?

A: A knee prosthesis is made of hard metal and plastic. Gravity will create a slight separation of the components. When you tighten your muscles or swing your leg, the pieces come into contact and make a clicking noise. This is normal. It should cause no pain and does not mean something is wrong or loose. The noise generally is not detectable after a year.

Q: Why does the skin feel funny around my knee?

A: The nerves in the skin cross the front of the knee from the inside out (across the kneecap). The incision for the knee replacement divides the tiny skin nerves, leaving the outside of the knee feeling fuzzy or numb. This tends to be permanent, but the sensation will lessen with time. It is normal, and happens in most all knee replacement patients.

Q: Why is my leg discolored?

A: You may develop some discoloration (like a bruise) in the leg. This is from bleeding that occurred after surgery in the knee joint that seeped into the tissue around your knee. It may extend from the hip down to the ankle. The discoloration will disappear with time.

Q: When are the staples removed?

A: If your wound was closed with staples, they should be removed about 10 to 14 days after your surgery, as long as there is not drainage from the wound. If your wound was closed without staples, nothing needs to be removed, the sutures will absorb into the skin. Occasionally a stitch may make its way to the surface of your skin. If this happens, call your surgeon. Redness and drainage around the sutures should not be ignored but reported to your surgeon.

Q: What will happen to the unused blood if I donate?

A: It will be discarded.

Q: How long will it be before I can take a bath or shower?

A: You may shower when you get home, provided you keep the wound dry with plastic and tape. You may shower without the plastic 24 hours after your wound is completely dry, if there is no wound drainage. Tubs, baths, hot-tubs, and swimming are to be avoided during the first 6 weeks to prevent soaking of the skin that may lead to infection.

Frequently Asked Questions About Knee Replacement Surgery (Continued)

Q: When can I drive a car?

A: Usually after three to six weeks. Occasionally sooner (left sided surgery). You must be able to demonstrate equal leg strength and agility if you are in an accident, otherwise your insurance company may not cover you. Practice first in an empty lot until you feel confident.

Q: When can I start playing tennis or golf?

A: Active sports are generally not resumed for 6 – 12 months after surgery.

Q: When will I be able to return to work?

A: Generally in 6 to 8 weeks after surgery. The timeframe depends on the type of work and control over your environment. Manual laborers generally are released to work later than sedentary workers. Discuss your specific work needs with your surgeon.

Q: How long should I keep doing the post-op exercises?

A: You should do the exercises given to you at discharge until your 6 week visit. You should continue your exercises on daily basis until you have no pain and can walk without a limp. It is a good idea to continue your exercises for a lifetime commitment to keeping your knee muscles strong.

Q: How long will I have pain?

A: The surgical pain tends to ease after a few days. Pain and stiffness may persist for up to 6 weeks while you work in physical therapy to regain your strength and motion. The knee may ache and swell for up to 3 months. Occasionally there will be sore spots, usually from tendons and muscles, for up to 6 months.

Q: Do I need an x-ray every two years if my knee feels fine?

A: Yes. X-rays are an important part of each follow-up visit and are essential in determining the bone response to the implant, the amount of wear, and the condition of the bone around the implant. X-rays assure us that the knee is functioning as well as it feels.

Q: What are my chances of needing a revision knee replacement?

A: Your knee prosthesis is man made. The more aggressively you use it, the sooner it will wear out. Of the knee replacements done 15 years ago, 5-10% have been revised, mostly for wearing out. Most elderly patients should expect the knee to last a lifetime. Revision surgery is not without risks. The risks of infection and need for bone grafting are substantially higher than primary surgeries, so take good care of your knee replacement.