

# Total Knee Replacement

**STEPHEN M. DESIO, M.D.**

## Hospital Stay

- Most patients are in the hospital for two to three days. A Case Manager is part of our team whom you will meet after surgery. We will work together to determine the best rehabilitation for you after surgery. The decision is between going home and having physical therapy services in your home with the VNA, or, going to a rehabilitation center for a few days until you become independent with your activities of daily living. If you live alone and have no one to help you at home, you may go to a rehabilitation facility until you become independent.
- If you become independent with your physical therapy while in the hospital, you will be discharged to your home and the Visiting Nurses Physical Therapy will come to your home for therapy until you can begin outpatient therapy.
  - To be independent with therapy, you must be able to safely get in and out of bed, climb stairs, walk with a walker safely, and have close to 90 degrees of bending of your knee.
  - In my experience, patients that go home tend to be more active, gain their mobility faster, and improve their function faster. They tend to be more independent and ambulate around their home often, which accelerates their improvement in motion, strength and function.
- You will be placed on a blood thinner to reduce the risk of blood clots. This medication is usually continued for a total of 14 days, after which aspirin is given for an additional 14 days unless contraindicated. The blood thinner is usually given by injection.

## Diet

- Advance to solid food as tolerated. Begin with clear liquids and light foods (jello, soup, etc.) Nausea is more likely if you are dehydrated, so drink plenty of water.

## Activity

- When you are discharged from the recovery room to your room, you will have a cryotherapy brace on your leg over your bandage.

- Cryotherapy – A Cryotherapy Cold Pack will be placed on top of your bandage after surgery. This is connected to a cooler that you will fill with ice and water. Cryotherapy is also known as cold therapy. This is the treatment of pain and/or inflammation by lowering the temperature of the skin over the affected area. It is probably the oldest form of pain control! In addition, it can significantly improve swelling after surgery.



The pad is placed on your knee after the bandage is applied. The blue tube is connected to the cooler and ice water will automatically circulate through the pad to decrease pain and inflammation from surgery. The pad and cooler are yours to keep. Do not bring them to the office unless you are having problems with them.

The ice in the system needs to be changed every 6 hours or sooner if the pad feels warm.

NEVER place the pad directly on your skin as frostbite can occur. ALWAYS place a towel or bandage under the pad.

- You may put full pressure on your operative leg after surgery. You will use a walker initially, and then progress to crutches or a cane within a few days.
- You may not drive as long as you are on narcotic pain medication.
- You may not drive until seen by your surgeon.

#### Swelling

- Try to avoid prolonged standing or walking the first week after surgery to reduce your swelling. When you are resting, keep your leg elevated above your heart. If you notice pain or swelling of your calf, notify your doctor immediately.

#### Bandages

- The bandage will be removed the second day after surgery. You may remove the cooling pad as needed, but remember to replace it when you are resting.

## Medications

- You will be given a prescription for a pain killer that is a narcotic. This is usually Percocet, Roxicet, Oxycodone, or something similar.
- A stool softener is recommended i.e. Colace. Common side effects of your pain medication are nausea and constipation.
- If you experience nausea, it is most commonly a side effect of the Percocet, and the anesthesia. Please call the office and we will phone in medication for the nausea.

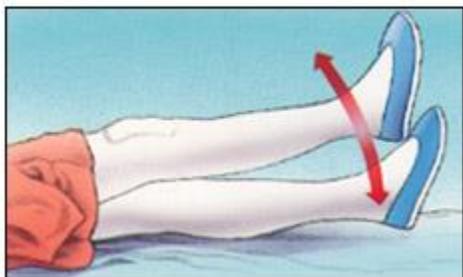
## Exercises Knee Replacement Exercise Guide

*Regular exercise to restore your knee mobility and strength and a gradual return to everyday activities are important for your full recovery. Dr. Desio and your physical therapist may recommend that you exercise approximately 20 to 30 minutes two or three times a day and walk 30 minutes, two or three times a day during your early recovery. Dr. Desio may suggest some of the following exercises. The following guide can help you better understand your exercise/activity program, supervised by your therapist and Dr. Desio.*

### Early Post-operative Exercises

*Start the following exercises as soon as you are able. You can begin these in the recovery room shortly after surgery. You may feel uncomfortable at first, but these exercises will speed your recovery and actually diminish your post-operative pain.*

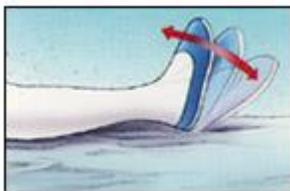
**Quad Sets** - Tighten your thigh muscle. Try to straighten your knee. Hold for 5 to 10 seconds. Repeat this exercise approximately 10 times during a two minute period, rest one minute and repeat. Continue until your thigh feels fatigued.



**Straight Leg Raises** - Tighten the thigh muscle with your knee fully straightened on the bed, as with the Quad set. Lift your leg several inches. Hold for five to 10 seconds. Slowly lower. Repeat until your thigh feels fatigued.

You also can do leg raises while sitting. Fully tighten your thigh muscle and hold your knee fully straightened with your leg unsupported. Repeat as above.

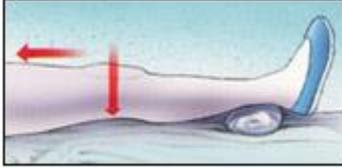
Continue these exercises periodically until full strength returns to your thigh.



**Ankle Pumps** - Move your foot up and down rhythmically by contracting the calf and shin muscles. Perform this exercise periodically for two to three minutes, two or three times an hour in the recovery room. Continue this exercise until you are fully recovered and all ankle and lower-leg swelling has subsided.



**Sitting Supported Knee Bends** - While sitting at bedside or in a chair with your thigh supported, place your foot behind the heel of your operated knee for support. Slowly bend your knee as far as you can. Hold your knee in this position for 5 to 10 seconds. Repeat several times until your leg feels fatigued or until you can completely bend your knee.



**Knee Straightening Exercises** - Place a small rolled towel just above your heel so that it is not touching the bed. Tighten your thigh. Try to fully straighten your knee and to touch the back of your knee to the bed. Hold fully straightened for five to 10 seconds. Repeat until your thigh feels fatigued.



**Bed-Supported Knee Bends** - Bend your knee as much as possible while sliding your foot on the bed. Hold your knee in a maximally bent position for 5 to 10 seconds and then straighten. Repeat several times until your leg feels fatigued or until you can completely bend your knee.



**Sitting Unsupported Knee Bends** - While sitting at bedside or in a chair with your thigh supported, bend your knee as far as you can until your foot rests on the floor. With your foot lightly resting on the floor, slide your upper body forward in the chair to increase your knee bend. Hold for 5 to 10 seconds. Straighten your knee fully. Repeat several times until your leg feels fatigued or until you can completely bend your knee.

### **Early Activity**

*Soon after your surgery, you will begin to walk short distances in your hospital room and perform everyday activities. This activity aids your recovery and helps your knee regain its strength and movement.*



**Walking** - Proper walking is the best way to help your knee recover.

At first, you will walk with a walker or crutches. Your surgeon or therapist will tell you how much weight to put on your leg.

Stand comfortably and erect with your weight evenly balanced on your walker or crutches. Advance your walker or crutches a short distance; then reach forward with your operated leg with your knee straightened so the heel of your foot touches the floor first.

As you move forward, your knee and ankle will bend and your entire foot will rest evenly on the floor. As you complete the step, your toe will lift off the floor and your knee and hip will bend so that you can reach forward for your next step. Remember, touch your heel first, then flatten your foot, then lift your toes off the floor.

Walk as rhythmically and smooth as you can. Don't hurry. Adjust the length of your step and speed as necessary to walk with an even pattern. As your muscle strength and endurance improve, you may spend more time walking.

When you can walk and stand for more than 10 minutes and your knee is strong enough so that you are not carrying any weight on your walker or crutches (often about two to three weeks after your surgery), you can begin using a single crutch or cane. Hold the aid in the hand opposite the side of your surgery. You should not limp or lean away from your operated knee.

You will gradually put more weight on your leg. You may use a cane in the hand opposite your surgery and eventually walk without an aid.





**Stair Climbing and Descending** - The ability to go up and down stairs requires strength and flexibility. At first, you will need a handrail for support and will be able to go only one step at a time. Always lead up the stairs with your good knee and down the stairs with your operated knee. Remember, "up with the good" and "down with the bad." You may want to have someone help you until you have regained most of your strength and mobility.



Stair climbing is an excellent strengthening and endurance activity. Do not try to climb steps higher than the standard height (7 inches) and always use a handrail for balance.

As you become stronger and more mobile, you can begin to climb stairs foot over foot.

## Advanced Exercises and Activities

*Once you have regained independence for short distances and a few steps, you may increase your activity. The pain of your knee problems before surgery and the pain and swelling after surgery have weakened your knee. A full recovery will take many months. The following exercises and activities will help you recover fully.*



**Standing Knee Bends** - Standing erect with the aid of a walker or crutches, lift your thigh and bend your knee as much as you can. Hold for 5 to 10 seconds. Then straighten your knee, touching the floor with your heel first. Repeat several times until fatigued.

**Assisted Knee Bends** - Lying on your back, place a folded towel over your operated knee and drop the towel to your foot. Bend your knee and apply gentle pressure through the towel to increase the bend. Hold for 5 to 10 seconds; repeat several times until fatigued.

***Knee Exercises with Resistance*** - You can place light weights around your ankle and repeat any of the above exercises. These resistance exercises usually can begin four to six weeks after your surgery. Use one- to two-pound weights at first; gradually increase the weight as your strength returns. (Inexpensive wrap-around ankle weights with Velcro straps can be purchased at most sporting goods stores.)



***Exercycling*** - Exercycling is an excellent activity to help you regain muscle strength and knee mobility. At first, adjust the seat height so that the bottom of your foot just touches the pedal with your knee almost straight. Peddle backward at first. Ride forward only after a comfortable cycling motion is possible backwards.

As you become stronger (at about four to six weeks) slowly increase the tension on the exercycle. Exercycle for 10 to 15 minutes twice a day, gradually build up to 20 to 30 minutes, three or four times a week.

***Pain or Swelling after Exercise*** - You may experience knee pain or swelling after exercise or activity. You can relieve this by elevating your leg and applying ice wrapped in a towel. Exercise and activity should consistently improve your strength and mobility. If you have any questions or problems, contact your orthopaedic surgeon or physical therapist.

#### Followup Information

- Your follow up appointment with Dr. Desio will have already been made prior to surgery. You will be given a reminder card with the date and time prior to your discharge from the hospital.
- Do not bring your Cryocuff cooler or pad to this appointment. Both the pad and the cooler are yours to keep.

#### Problems

- Please contact us immediately if you have any of the following:
  - Severe pain
  - A temperature above 101 degrees
  - Pain, redness, or significant swelling in your knee or calf that does not improve with elevation. This could be an indication of a blood clot.
  - Please call if you have any questions.

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