



中正骨科醫院

Jhong Jheng Orthopedic Hospital

## Total Knee Replacement Surgery

品質、安全、效率、舒適

全人醫療照護、國際品質標準



# Total Knee Replacement Surgery

## 1. Important things to know before surgery

- (a) Before surgery you need to fast, do not eat or drink anything after midnight. If you have hypertension, please take your antihypertensive medication on the day of the surgery. Do not take your anti-hyperglycemic medication if you have diabetes.
- (b) The night before surgery, clean the surgical site with mild soap or shower gel.
- (c) Do not take any over the counter medication. Do not smoke or drink after midnight.
- (d) You will need to bring your own assistive device (ex: four point walker) to the hospital. If you don't have an assistive device, you can purchase one in the Rehabilitation Center on the 2nd Floor of the hospital.

## 2. The Day of the Surgery: Important things to know about registration and pre-operative preparation

- (a) Register at the admissions desk in the lobby. A representative, service coordinator, or volunteer will take you to X-ray, EKG, and the Lab for blood work. When you are done, one of these assistants will take you to the International Medical Unit.
- (b) Once you are admitted to the International Medical Unit, the nurse will assist you with changing your clothes and marking the area for surgery.

- (c) Underwear, removable dentures, watches, jewelry, hair accessories, and nail polish all need to be removed before surgery.
- (d) Intravenous fluids will be provided to keep your body fluids balanced and to maintain hydration to the body.

### **3. Returning to the International Medical Unit after Surgery:**

- (a) You will return to the International Medical Unit after surgery. You will need complete bed rest and should eat nothing for 6 -8 hours. A nurse will provide you with the "pressurized cold therapy system" (Figure 1) which will be placed on the surgical area. This will help to reduce swelling. (See Figure 1: pressurized cold therapy system).



Figure 1: pressurized cold therapy system

- (b) You might feel pain at the incision site, discomfort when changing positions, and nausea and vomiting after the anesthetic subsides. This is a typical postoperative reaction so don't worry. Inform a medical professional so that they can help you relieve the discomfort.
- (c) You might have a variety of lines such as an intravenous line or Foley catheter, etc. Please be careful when you change positions or exercise so you do not pull out or twist the lines.
- (d) After you resume your diet, raise the head of your bed to between 45 and 60 degrees. Only eat a small amount of a light diet the first 2 to 3 days after surgery. To prevent urinary tract infection make sure your water intake is 1500 to 2000 ml (cc) per day.
- (e) Do not put anything under the surgical site. You need bed rest the first 2 days after surgery. Remember to keep your knee straight. (See Figure 2)



(Figure 2)

(f) Exercise: After the anesthetic subsides, you can slowly start to do your quadriceps sets and ankle pump exercises.

### 1. Quadriceps sets, thigh muscle training:

Tighten the muscle above the operated knee by pushing your knee into the bed. Do this for 10 seconds, counting from 1 to 10, and then relax the leg. Do this 30 times a day, morning and night. (See Figure 3).



(Figure 3)

### 2. Ankle Pumps (gastrocnemius/dorsal motion):

Keeping your leg straight, move the foot on the operated leg up and down.

◆ The first step is Dorsal Flexion (See figure 4-1). Push your toes on the operated leg, up with your leg straight for 10 seconds, counting from 1 to 10, and then relax the leg. Keep your leg straight and push your foot up and down .

◆ The second step is Plantar Flexion (See figure 4-2). Push your toes down, while keeping your leg straight. Do this for 10 seconds then relax the leg. This exercise will help the blood circulate in the lower extremities, which reduces the swelling and prevents the blood from clotting. Do this 30 times a day, morning and night.



Left: Plantar Flexion (FIG. 4-2) Right: Dorsal Flexion(FIG. 4-1)

#### **4. The 1st Day After Surgery:**

- (a) **Promote Blood Circulation:** You will start to use the Circulation Machine (See figure 5) to promote blood circulation. Exercise at least 2 to 3 times day, every 20 minutes.



(Figure 5)

(b) **Sustained Passive Flexion Movement:** To assist operated knee bend, you will start to use the Continue Passive Motion machine (CPM machine) (See Figure 6) .Your degree of knee bend will depend on your pain tolerance. The goal is to increase the bend 10-15 degrees every day. Do this exercise 2 to 3 times per day for 30 minutes.



(Figure 6)

(c) **Heel Sliding Exercise:** Lie on your back with both legs straight. Slowly slide the heel of the operated leg toward your body. This maintains the range of motion of your lower extremities. Do this exercise 3 to 4 times per day for about 5 to 10 minutes. (See Figure 7).



(Figure 7)

## 5. The 2nd day after surgery:

- (a) The Foley catheter will be removed as per your physician's order.
- (b) Apply warm compresses if there is any bruising or aching of the thigh or leg.
- (c) Exercises for the 2nd day after surgery:
  - (1.) Straight Leg Raise: Lie flat on your back. Place the heel of the leg that was not operated on flat on the bed and slide it towards your body so it is at a 45degree angle. Lift the leg you had the operation on as high as you can, while keeping it straight. Do this for 10 seconds and then slowly bring your leg down to the bed. (see Figure 8) Do this exercise 30 times per day, morning and night. This exercise will increase the strength of the quadriceps muscle.

(Figure 8)





(2.) Active knee flexion movement: Sit on the edge of your bed. Let your foot hang toward the floor for 10 seconds. Straighten the leg out away from the bed for 10 seconds then slowly relax the leg. (See Figure 9) Do this exercise 100 times per day. The purpose of this exercise is to get knee flexion to more than 90degrees before discharge.



(Figure 9)

(d) Important things to know about your walker:

(1.) Before using the walker please check and ensure the adsorption rubber pads are secure and not loose. This will prevent falls.

(2.) When using the walker, keep your body straight, head up, and eyes facing forward. Do not look down.

(3) How to use the walker:

(3-1) Stand on the side of your bed and check your equilibrium.

(3-2) Put the walker in front of you and move your surgical leg forward. Then follow with your good leg. Continue this action. (See Figure 10).



(figure10)

## 6. 3 to 5 days after surgery

### (a) Stair Exercise:

#### How to exercise on the stairs.

(1.) Walking up the stairs. You will take one step up with your non-operative leg going first. Then follow with the surgical leg. Repeat this action. (Tip: good person goes up to heaven)

(2.) Walking down the stairs. You will take one step down, first with the surgical leg. Then you will follow with the good leg. Repeat this action.

(Tip: bad guy goes down to hell)



(3.) Walking up and down the stairs independently without any assistive device.



**7. The 6th day after surgery you will be ready to go home and will be prepared for discharge from the hospital.**

A. Your discharge date is confirmed by your physician after morning rounds.

- B. Important information for a safe and speedy recovery:
- (1) Incision site dressing care instruction:
    - (a) You are able to shower 1 to 2 days after your sutures are removed.
    - (b) Return to the hospital if you notice any redness, swelling, heat, pain or bleeding around the incision site.
    - (c) For more information about wound care and changing your dressing, please read your dressing change instruction hand out.
  - (2) Continue your rehabilitation exercises!!!
  - (3) When you get up in the morning you can do active knee flexion movements (See Figure 9). When you are done exercising you can get out of bed.
  - (4) Activities you should avoid that may damage or loosen the artificial knee include weight lifting, jumping, climbing a hill or playing basketball.
  - (5) Continue using your assist device for 1 to 3 weeks after surgery and follow your recommendations from the follow up clinic.
  - (6) Activities you can do include walking, jogging, and sedentary activities such as playing chess.
  - (7) Although your incision site is healed you should still have your physician evaluate you before you go to the hot springs, play golf, or go swimming.

- (8) Please inform all your physicians about your history of a total knee replacement. If you have any skin conditions or undergo any minor surgery such as a tooth extraction always inform the physician. You will need antibiotic treatment to prevent infection.
- (9) Please come back to the hospital immediately if you have a fever, pain, or discharge at the surgical site.
- (10) If you have any questions, please do not hesitate to contact us via phone: +886-7-2852999.  
Or on the web at: <http://www.jjoh.org/IMSC/index.html>