Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

WHAT TO EXPECT

Your Guide to Knee Replacement

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TABLE OF CONTENTS

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

TABLE OF CONTENTS (continued)

Dear Patient,

Welcome to NewYork-Presbyterian Hospital/Columbia University Medical Center (NYPH/CUMC). In an effort to help you get the most out of your hospital experience, we have developed this guide to help you before, during, and after your hospital stay. The objectives of this guide are:

1) To help prepare you for your surgery and hospital experience
2) To optimize your recovery from your Knee Replacement while in the hospital and later at home

It is important to remember that this is only a general guide to recovery from your surgery. Keep in mind that not all patients have the same medical conditions or needs. Therefore, your physician or therapist may make changes from this book. THEIR CHANGES TAKE PRECEDENCE!

As you know, NYPH/CUMC, one of the top medical centers in the country, is world-renowned for its innovations in medicine and surgery. At NYPH/CUMC, we offer Joint Replacement surgery to patients whose complex medical conditions have prevented them from undergoing surgery in other institutions. All our staff are committed to performing with excellence; our goal is the help you, our patient, achieve optimal success from your surgery. They complement and support the outstanding surgical and medical staff for which NewYork-Presbyterian Hospital/Columbia University Medical Center is world-renowned.

You, yourself, are the driving force toward a successful recovery! You can help achieve optimal results from this surgery by becoming an active, helpful part of the NYPH/CUMC team before, during, and after your surgery. The overall, long-range benefit of your surgery depends very much on the success of your continuing rehabilitation at home. Therefore, we hope that you will continue what the team has taught you long after you have left us.

This guide structures your participation from this point onwards.
Therefore, it is important that you and your home care helper(s) read this book carefully, and refer to it throughout your hospitalization.
Bring this book to the hospital with you, so you can refer to it as needed.

Sincerely,
NewYork-Presbyterian Hospital/Columbia University Medical Center and
Columbia University Medical Center Department of Orthopaedic Surgery

Center for Hip & Knee Replacement

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WHAT IS KNEE REPLACEMENT?

If your knee is severely damaged by arthritis or injury, it may be hard for you to perform simple activities such as walking or climbing stairs. You may even begin to feel pain while you're sitting or lying down.

If medications, changing your activity level, and using walking supports are no longer helpful, you may want to consider knee replacement. By resurfacing your knee's damaged and worn surfaces, total knee replacement can relieve your pain, correct your leg deformity, and help you resume relatively normal activities.

How the Normal Knee Works

The knee is the largest joint in the body. Nearly normal knee function is needed to perform routine everyday activities. The knee is made up of the lower end of the thighbone *(femur),* which rotates on the upper end of the shinbone *(tibia),* and the kneecap *(patella),* which slides in a groove on the end of the femur. Large ligaments attach to the femur and tibia to provide stability. The long thigh muscles give the knee strength.

Normally, the joint surfaces where these three bones touch are covered with *articular cartilage,* a smooth substance that cushions the bones and enables them to move easily.

All remaining surfaces of the knee are covered by a thin, smooth tissue liner called the *synovial membrane.* This membrane releases a special fluid that lubricates the knee which reduces friction to nearly zero in a healthy knee.

Normally, all of these components work in harmony. But disease or injury can disrupt this harmony, resulting in pain, muscle weakness, and less function.

WHAT IS KNEE REPLACEMENT? (Continued)

Realistic Expectations About Knee Replacement

An important factor in deciding whether or not to have knee replacement surgery is understanding what the procedure can and can not do.

More than 90 percent of individuals who undergo total knee replacement experience a dramatic reduction of knee pain and a significant improvement in the ability to perform common activities of daily living. However, total knee replacement won't make you a super-athlete or allow you to do more than you could before you developed arthritis.

Following surgery, you will be advised to avoid some types of activity for the rest of your life, including jogging and high impact sports.

With normal use and activity, every knee replacement develops some wear in its plastic cushion. Excessive activity or weight may accelerate this normal wear and cause the knee replacement to loosen and become painful. With appropriate activity modification, knee replacements can last for many years

About the Surgery

The procedure itself takes about one to two hours. Your orthopaedic surgeon will remove the damaged cartilage and bone and then position the new metal and plastic joint surfaces to restore the alignment and function of your knee.

Many different types of designs and materials are currently used in total knee replacement surgery. Nearly all of them consist of three components: *the femoral component* (made of a highly polished strong metal), the *tibial component* (made of a durable plastic often held in a metal tray), and the *patellar component* (also plastic).

WHAT IS KNEE REPLACEMENT? (Continued)

After the Surgery

Bruising on the side of the operated leg is not uncommon after joint replacement – this sometimes lasts 1-2 weeks post-operatively.

You also may experience some swelling and stiffness in the operated leg after the surgery – this may last weeks to months after the surgery and is entirely normal. The more you elevate the leg when you lie down or sleep, the better you can reduce the swelling – “Toes above your nose.”

You may feel some numbness in the skin around your incision.

Occasionally, you may feel some soft clicking of the metal and plastic with knee bending or walking – this is entirely normal.

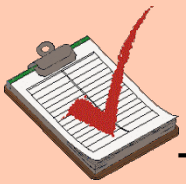
These symptoms often diminish with time and most patients find they are minor compared to the pain and limited function they experienced prior to surgery.

Improvement of knee motion is a goal of total knee replacement. The motion of your knee replacement after surgery is predicted by the motion of your knee prior to surgery. Many people with arthritis have limited knee motion before surgery and it is important to note that their final motion may improve somewhat, but will often never be as full as it was prior to the onset of arthritis.

Most patients can expect to bend and straighten the replaced knee and to be able to go up and down stairs and get in and out of a car. Kneeling is usually uncomfortable, but it is not harmful.

Your new knee may activate metal detectors required for security in airports and some buildings. Tell the security agent about your knee replacement if the alarm is activated.

KEY PEOPLE TO KNOW		
CONTACT	NAME	EXTENSION
ORTHOPAEDIC SURGEON		
PHYSICIAN / INTERNIST		
ANESTHESIOLOGIST		
PRE-OP EDUCATOR		
NURSE MANAGER		
SOCIAL WORKER or CARE COORDINATOR		
PT/OT		
RESIDENTS		
NURSE PRACTITIONER		
NURSE		
PHARMACIST		



THINGS TO DO BEFORE SURGERY – YOUR PRE-OP CHECKLIST

Discuss With Your Doctor:

- The planned surgery and the anticipated recovery
- Obtaining ALL outside pre-op x-rays and scans prior to surgery
- Any allergies
- Minimizing opiate pain medication in the weeks prior to your surgery
- Any special concerns (your planned living situation after surgery, who will be staying with you for the first 48-72 hours after surgery, return to work etc.)
- Key medications, specifically any blood thinning medications examples may include: Aspirin, Plavix, Coumadin/Warfarin, Lovenox, Eliquis. You must discuss with your orthopedic surgeon and your internist/cardiologist if you should continue or stop this medications before surgery. Most patients on Aspirin should continue their Aspirin including the day of surgery. Most patients should discontinue their Plavix, Coumadin/Warfarin, Lovenox and Eliquis prior to surgery. Please discuss with your physicians for guidance.
- You must discontinue taking any anti-inflammatory medications for example: Motrin, Ibuprofen, Aleve, Mobic as well as and birth control pills ONE week prior to surgery.

YOUR PRE-OP CHECKLIST (Continued)

Pre-surgical Screening Appointments:

Our Surgical Scheduling office will assist you in setting up surgery and any necessary tests. They will help you to select the dates for surgery and pre-op testing appointments.

You will undergo diagnostic testing (x-rays, EKG, blood tests, urine etc) and medical evaluation to clear you for surgery

When these appointments have been arranged, enter them here:
Date_____Time_____Location_____

- Internist appointment
  - Medical/physical examination
  - Review of diagnostic testing
  - Medical clearance for surgery
  - Follow medication regime prescribed by your Physician.

- **BRING YOUR MEDICAL HISTORY INFORMATION AND A LIST OF YOUR CURRENT MEDICATIONS TO THE PRE-OP TESTING APPOINTMENTS**

Pre-op testing is **best** done here at NYPH/CUMC. However, we understand that in some circumstances pre-op testing must be done outside of NYPH/CUMC. In these situations your active participation is crucial to make sure that all of the information needed to clear you for surgery is sent to us in a timely fashion

Pre-surgical Questionnaire:

You will receive a questionnaire in the mail or by email. Please complete this required form in a timely manner before your surgery. If you have any questions about this form call (212) 305-8193

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

YOUR PRE-OP CHECKLIST (Continued)

Contact the Pre-op Educator (212) 305-3521

- We require Pre-Op Education to help prepare you for your surgical procedure. Pre-Op education will help answer many frequently answered questions and is provided free of charge.

Nutrition

- Your body will need to heal from surgery and the better your nutrition, the faster and better your recovery will be. Great nutrition starts with increasing your protein intake (fish, egg whites, chicken) and decreasing carbohydrate intake (breads, rice, pasta and limit sugary snacks). Increasing vegetable and fiber intake will help you maintain normal stomach function after surgery.

Vitamins

- You will help your body by taking a multivitamin daily. In addition, it may be beneficial to start taking Iron, Vitamin D, and Calcium

Diabetes

- If you have diabetes, it is critical to achieve tight control of your diabetes. In general, you are not eligible for surgery if your blood sugar is high.

Exercises

- The stronger you are before surgery, the better your recovery will be after surgery. Please do pre-op exercises (if indicated by your surgeon)
  The more flexible you are the better. Stretch your hamstrings, quads, and back.

YOUR PRE-OP CHECKLIST (Continued)

TIME AND PLACE TO ARRIVE AT NYPH:
On the **business** day prior to surgery (this will be Friday for Monday surgeries) the hospital nurse will call the number you provided between 3:30-6:00 pm to tell you the time you are scheduled for surgery, review your pre-op instructions; answer your questions; and tell you where to come. If your physical condition changes in the days before surgery – cold, rash, cough, fever, or stomach upset – notify your doctor. He or she may want to reschedule your surgery.

BOWEL PREPARATION: Patients are advised to carry out the following bowel preparation prior to surgery:

The day prior to surgery, consume a SOFT diet, if possible. Soft foods may include: soups, Jell-O, custard, yogurt, ice cream, cold cereals, etc. In any event, eat lightly.

WASH: Clean your leg with an antibacterial soap. Scrub your entire leg, foot, toes, and under your toenails. Use skin preparation cloth as instructed.

DO NOT EAT OR DRINK anything after midnight the night before surgery unless otherwise instructed. If your internist instructs you to take any necessary medication the morning of surgery, do so with a small sip of water. If you have questions about this, confirm with your internist.

- Do not use alcohol or sedatives 24 hours before surgery.

- If you are delayed in getting to the hospital on the day of surgery please call (212) 305-2573.

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

WHAT TO BRING TO THE HOSPITAL

✓	ITEM
	Surgical Consent signed by you (if not previously provided)
	X-rays and lab reports (if requested)
	Health Care Proxy
	Your cane or crutches, *if you need them to enter the hospital* (Wheelchairs are available at the hospital entrance).
	Flat supportive athletic or walking shoes that are non-slip
	Short, lightweight bathrobe (Short clothing helps prevent tripping while walking)
	Personal toiletries - If you prefer a special type of lotion, deodorant, or hair product, please bring them.
	Eyeglasses instead of contact lenses (They are easier to take off and less likely to be lost in the hospital We cannot be responsible if you lose them)
	Dentures: we will provide a container which you must use (When you remove them, make sure to keep the container on your bedside table or in a drawer, not on the bed or a food tray. As with glasses, we cannot be responsible for loss)
	Your “What To Expect: Total Knee” patient education book

WHAT TO BRING TO THE HOSPITAL (Continued)

✓	ITEM
	Bring a written list of the medications you have been taking (include any you may have stopped in anticipation of surgery)
	Telephone numbers of people you may want to call. You may bring your cell phone
	Insurance Information
	Small amount of money for newspapers, items from gift shop, etc.
	Credit card for long distance telephone services or ordering medical equipment
	Sweat suit or loose, comfortable fitting clothes to wear home (your family/friends could bring these when you are ready to leave)
	A book, magazine or hobby item to assist relaxation

WHAT NOT TO BRING TO THE HOSPITAL

ITEM
Valuables (Laptops, iPads)
Jewelry
Large amounts of money

Cash in excess of $20.00 should be deposited in the hospital safe when you arrive, or sent home with your family. Although we respect your property rights, the hospital staff cannot guarantee security for your personal property.

PLANNING FOR YOUR HOSPITAL STAY

Personal articles and clothing should be limited to those that fit in a single, **small** piece of luggage. There is very little storage space in your in-patient room. We suggest you plan in two phases:

1. What you will want during your hospital stay (toiletries, robe, magazines etc). If you expect family or someone else to visit you soon as you go to your in-patient room, it may be most convenient for them to bring in the things you want in the hospital.

2. What you will need for your trip home. This will include the loose fitting clothing, proper, non-skid shoes, seasonally appropriate clothes, etc. These items can be brought in by family the day you leave.

Electric razors and battery-operated appliances are the only appliances you may bring to the hospital. This is for the safety of yourself and other patients.

Women: Your surgery may trigger a change in your menstrual cycle. Sanitary pads are available and will be provided by the hospital.

For patients with Sleep Apnea who use a device, please bring the mask attachment to the hospital. Do not bring the Sleep Apnea machine.

PLANNING FOR YOUR HOSPITAL STAY (continued)

Assistive Devices:
Regarding your walker, cane or crutches (if you use them): You will need a walker or cane or crutches when you begin to practice walking in the hospital. If you already have a walking device, ask your surgeon if the one(s) you have are the type you will need during recovery. If not, the hospital will provide them.

Hospital Gowns:
Regarding your hospital stay, please note the following: We prefer that you use the hospital gown after surgery. It is less restricting and easier to get on and off. Besides, clean gowns and robes are available at all times. You will be walking shortly after surgery. Shoes with non-skid soles are preferable. Bring orthotics, if you use them.

Relaxation items:
Reading materials or personal articles may help you to relax.
TV and telephone service are available in your room.

Medications:
Once you arrive at NYPH the hospital will usually supply your medications. However, we suggest that you bring your medications in case there are any issues with our pharmacy. If you bring your own supply, it will be deposited in the hospital pharmacy safe. Bring all prescription medications in their original containers so they can be identified by the hospital pharmacist. The nursing staff will keep the medications for you and administer them as prescribed.

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

YOUR ANESTHESIOLOGIST & ANESTHESIA

Anesthesia

You will meet your anesthesiologist just prior to your surgery. Your anesthesiologist is involved in all aspects of your care, including preoperative evaluation, monitoring your physical status during surgery, as well as postoperative care and pain control. When you meet the anesthesiologist, he/she will discuss the anesthetic options and outline the plan for your specific operation. Please discuss all pain medications you have taken in the past as well as any significant alcohol consumption.

Your Anesthesiologist in the Operating Room

While in the operating room, you are monitored constantly by your anesthesiologist. Many things are monitored, including blood pressure, heart rate, and temperature. After you are asleep various lines are placed to keep watch on your condition during surgery. Your anesthesiologist will discuss the use of these monitors.

Blood Transfusions

Depending upon your surgery and medical conditions, you may require blood transfusion during surgery or post-operatively. Your anesthesiologist reduces the need for transfusion by lowering blood pressure during surgery, and occasionally using a blood recycling system.

We do not transfuse blood unless it is absolutely necessary.

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

YOUR INITIAL RECOVERY AFTER SURGERY IN THE POST-ANESTHESIA CARE UNIT (PACU)

General Information:
After surgery, you will need immediate, careful monitoring, while you recover from anesthesia and gradually awaken.

You will be moved directly from the Operating Room to a special Recovery Room, which we call the PACU (Post-Anesthesia Care Unit). In the PACU, you will be provided with oxygen, intravenous lines, and continuous cardiac and respiratory monitoring, while your anesthesia wears off.

The PACU is staffed by Registered Nurses who have advanced education and training in the post-operative care of patients undergoing orthopaedic surgery. These nurses continuously monitor your condition and provide aid and comfort as you recover.

An anesthesiologist, a doctor who specializes in the care of patients undergoing surgery and who provides anesthesia, will also be in the PACU to monitor your recovery from anesthesia.

Visitations while you are in PACU:
Visitation in the PACU is limited in order to promote privacy for all patients, decrease the risk of infection, and to enhance the healing process.

Every effort will be made to provide your family with current information about your condition. They will be informed about your transfer to your in-patient room, as soon as your room assignment is known.

As a general rule, visitors are not allowed to stay overnight in patient rooms (unless you have made special arrangements to pay for a private room).

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

PAIN MANAGEMENT PROGRAM

Beginning your Pain Management Program:
Pain management begins even before surgery. You will be given several medications that help with perioperative pain control and you may be given medicines that help prevent nausea before surgery in the preoperative area. Our patients often receive a nerve block which is an ultrasound guided injection of local anesthesia around one of the nerves that supplies the knee. This injection is typically done before surgery which decreases pain after surgery. Following surgery, pain management begins in the PACU; the anesthesiologist and surgeon will take care of your pain. The Nurse Practitioner from Acute Pain Services may also visit you. We are aware that your surgery may be followed by pain, which may or may not begin to be felt in the PACU.
You will remain in the PACU until your recovery is stabilized. The anesthesiologist or medical doctor will determine your readiness to be transferred to your in-patient hospital room. The nerve block wears off about 8-12 hours after it is placed so if your knee starts to feel achier and painful at that time, it is important to request pain medication from your nurse.

The Patient's Rights:
The patient has the right to expect management of pain to include but not be limited to:

- A concerned staff committed to pain prevention, when possible and management when pain occurs
- Information about pain and pain relief measures
- His/hers reports of pain to be respected
- Health professionals responding appropriately to reports of pain
- Availability of pain relief specialists

PAIN MANAGEMENT PROGRAM (continued)

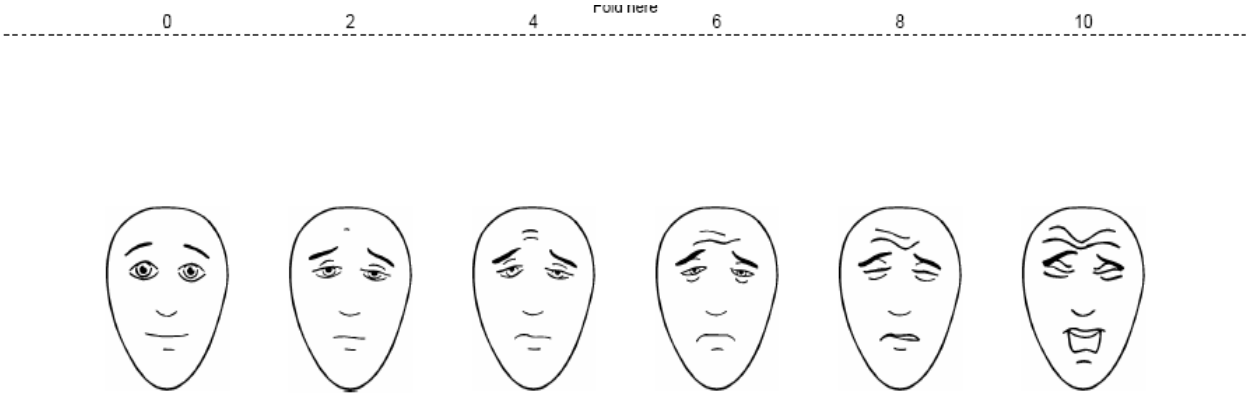
The Patient's Responsibilities:

In order for the patient to have his/her pain treated effectively, it is important for the patient to:

- Request pain relief on a timely basis
- Work with the doctor and nurses to develop a pain management plan
- Help the doctor and nurses assess his/her pain and report whether the pain relief measures were effective
- Talk to the doctor and nurse about worries concerning taking pain medication

Because there are no direct clinical tests or tools to measure pain, you must be ready to tell the staff what your pain feels like, where it is located, and if it changes at times. Sometimes pain is constant, other times it comes in bursts. Pain can be sharp, burning, tingling, or aching.

You will be asked to rate how much pain you have by using Pain Intensity Scales. Here is one example of a Pain Intensity Scale:



"These faces show how much something can hurt. This face [point to left-most face] shows no pain. The faces show more and more pain [point to each from left to right] up to this one [point to right-most face] – it shows very much pain. Point to the face that shows how much you hurt [right now]."

From Pediatric Pain Sourcebook, www.painsourcebook.ca Version: 7 Aug 2007 CL von Baeyer

PAIN MANAGEMENT PROGRAM (continued)

Even under your personal pain management program, your pain level may change at times. Be sure to tell your nurse if it becomes worse. Your pain is easier to control if you do not allow it to become severe before taking a pain medication. Please discuss the best schedule for you with your nurse.

Your need for pain control after surgery will be met immediately by either oral pain medications or by Patient Controlled Analgesia (PCA), Epidural Patient Controlled Analgesia (PCEA), Regional Patient Controlled Analgesia (PCRA), or rarely, by injections. PCA, PCEA, and PCRA are described on the next page.

With either method of pain medication, please notify your nurse or doctor if you are not getting enough pain relief. While it may not always be possible to get rid of all pain we want you to be as comfortable as possible while you heal in order to help you be able to participate better in your recovery activities.

A day or two after surgery, your surgical pain will be less severe and you will be able to progress with various activities more readily. Oral pain medication helps patients resume daily activities with a minimum amount of discomfort. In addition, it is important to understand that oral medications can be prescribed in a way that makes them just as strong as other forms of medication.

For additional pain relief we will provide you with **ice packs** or other cold therapy and introduce you to helpful **relaxation exercises**. Both are described on the following page.

PAIN MANAGEMENT PROGRAM (continued)

Cold Therapy:

Cold therapy in the form of ice packs or another cold therapy method will also be provided as an intervention to reduce swelling and pain. Cold therapy produces an anesthetic (numbing) effect when placed on the surgical area.

We recommend that ice packs be applied to the surgery site with a barrier for 20 minutes every four hours (**4 or 5 times each day**) throughout your hospitalization. ***Don't hesitate to ask your nursing staff for ice packs between various activities*.** Cold therapy may make the joint feel stiff at first; however the pain relief usually outweighs the possibility for stiffness.

Cold therapy can be very helpful at home. If your legs feel heavy and stiff, we recommend that you rest in bed with ice packs applied to the tender or swollen areas and leg elevated. It can be as simple as wrapping ice cubes in a towel. And there are commercial cold packs available which you can keep cold, ready to use, in your refrigerator or freezer.

Relaxation Exercises:

Relaxation exercises, such as slow rhythmic breathing, can help with handling any pain you may be feeling, as well as providing overall comfort.

1. Breathe in slowly and deeply- in through your nose, out through your mouth.

2. As you breathe out slowly, feel yourself beginning to relax, feel the tension leaving your body.

3. Now breathe in and out slowly and regularly, at whatever rate is comfortable for you. You may wish to try abdominal breathing (using your diaphragm). If you do not know how to do abdominal breathing, ask your nurse for assistance.

PAIN MANAGEMENT PROGRAM (continued)

4. To help you focus on your breathing, breathe slowly and rhythmically. Breathe in and say silently, “in, two, three”; then breathe out and say silently to yourself, “out, two, three.”

5. It may help you to imagine that you are doing this in a place that is very calming and relaxing for you, such as lying in the sun at the beach or in your own special place.

6. You may possibly relax by performing steps 1 through 4 only once. But it may help to repeat steps 3 and 4 for up to 20 minutes.

7. End with a slow, deep breath. As you breathe out, say to yourself, “I feel alert and relaxed.” Then concentrate on staying that way.

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

WHAT IS PATIENT CONTROLLED ANALGESIA (PCA, PCEA, AND PCRA)?

Patient Controlled Analgesia (PCA) is a unique pain control system combining professional staff, equipment, and YOU, the patient. Nurses, pharmacists, doctors and other providers and sometimes anesthesiologists supervise your use of a microprocessor-controlled electric pump, called a "PCA pump".

The pump is programmed to deliver medication to you with your own unique prescription. You may receive the medication by way of an intravenous catheter, an epidural catheter, and/or a regional catheter. These will be described in greater detail below.

This way of receiving medication is called "Patient Controlled" because you receive the medication when you press a button attached to the pump which tells the pump to give a dose of the pain medication into the tubing (catheter). You may also have medication flowing continuously; in addition to the 'booster shot' you are able to give yourself.

Safety mechanisms against an overdose are part of PCA. The pump is programmed to NOT respond to a patient's request for a booster shot, if it is too early according to the PCA prescription. In other words, if a dose is requested (the button is pushed) before the next dose is allowed, then the machine will not give the patient the dose.
However, the PCA system automatically records both the actual doses given and doses that were too early and not given, so the nurse will know of unfulfilled requests when the machine is checked. Also, if the medicine is making you sleepy (a sign that this is probably enough medicine for now) then you will be too sleepy to push the dosing button. REMEMBER, in order to keep this method of pain control safe, EVERYONE must follow the rules. **Only the patient is allowed to press the dosing button**. If a well-meaning family member or friend pushes the button, especially when you are sleeping, the built in safety precautions are bypassed, and YOU, the patient, may receive a dose of medication that is unsafe!

If all of the medication allowance is used, but there is still pain, tell your nurse. The nurse can call the surgical team or the Acute Pain Service.

WHAT IS PATIENT CONTROLLED ANALGESIA (PCA, PCEA, AND PCRA)? (Continued)

The members of the surgical team or the acute pain service (doctors and nurses specially trained in the care of the patient with pain) can then check on you and adjust the medication or PCA pump settings.

The unit nurses check regularly to make sure that you have adequate pain relief with minimal unpleasant side effects. If any problems arise, someone from the Surgical Team and someone from Acute Pain Service are on call 24 hours a day, 7 days a week.

Intravenous PCA

The most common way to receive "PCA" medication is through an intravenous (IV) catheter. Special tubing connects the pain medication through the "PCA" pump and to your IV catheter. This means that the pump will be programmed to inject pain medication directly into your blood stream, when you press the dosing button. Again, you can give yourself a 'booster shot' of the medication, if needed, just by pressing the dosing button, but for safety reasons, you will only receive a dose if enough time has passed from the last "booster shot" you received..

This PCA method should keep you comfortable most of the time. If you suddenly have more pain and the "booster shots" don't seem to be working well, let the nurse know so he/she can give you extra medicine (called a bolus) and tell the doctors and other providers who may then increase the "booster shot" amount.

WHAT IS PATIENT CONTROLLED ANALGESIA (PCA, PCEA, AND PCRA)? (Continued)

Regional PCA (PCRA)

Another method of PCA pain control is called regional analgesia. With this method, a thin, soft catheter is placed very close to a nerve that supplies the area of the operation. The same local anesthetic medication used during surgery to make part of your body numb is 'injected' into the soft tissues surrounding the responsible nerve, through the thin tubing. But when it is used for pain relief only then the medicine is not as strong as the dose used for the surgery, so you feel less pain but you usually aren't numb.

The medicine may only flow continuously (all the time) or you may be able to also give yourself 'booster shots' by pressing the dosing button, just like with the IV PCA. Because peripheral nerves (the nerves that supply the arms and legs) are not exact and do not cover the entire body part involved we do not expect pain control to be 100%. For this reason when we use PCRA we also use either IV PCA or we use oral (by mouth) pain medication as well.

When we combine PCRA with the IV method we described above or with pain pills, pain control is usually excellent with very little side effects.

About your pain medications

Medications used to control pain are carefully prepared in order to assure quality and safety. Some of these medications include Morphine, Hydromorphone (Dilaudid) and fentanyl, which are opioids (morphine like medications), and bupivacaine (Marcaine) or Ropivacaine, which are local anesthetics. Local anesthetics are a type of medication used to temporarily make a part of our body feel numb, so we do not feel pain. Novocain, which you may have had at the dentist's office, is a type of local anesthetic.

Patients must inform their anesthesiologist and peri-operative nurse about any problems encountered with medications of any type in the past. You must also inform them of ANY medications you are taking or have taken in the last 30 days, including over the counter (OTC) medications and herbal supplements or medications.

Center for Hip & Knee Replacement

NewYork-Presbyterian
Columbia University Medical Center

AFTER YOUR TOTAL KNEE REPLACEMENT SURGERY

Once you are in your inpatient room, you will encounter various activities:

- **Vital signs:** Your vital signs, which consist of blood pressure, pulse, respiratory rate and temperature, are taken frequently after surgery. The circulation of blood and motion in your legs will also be assessed regularly.
- **Breathing and exercise:** You will be asked to breathe deeply, to use your inspirometer (described on following pages) and to exercise your legs often in order to prevent complications.
- **Surgical dressing and drainage:** You will have a dressing around the surgical site. You may have a dressing called AquaCel which is a waterproof covering over your incision. Do not scrub or peel away the dressing.
- **Urination after surgery:** It is likely that you will have a catheter that collects your urine into a bag (Foley Catheter). This catheter is necessary since large amounts of fluid are given during and after surgery. The Foley is removed once you are able to get out of bed. The first void is the most difficult once the catheter is removed. The Foley Catheter is usually removed 24 hours after surgery.
- **Constipation:** The combination of anesthesia, inactivity, and strong pain medications (narcotics) will slow down your digestive system. You may need stool softeners. We recommend that you drink lots of water, eat fruits, vegetables, and high fiber foods, and avoid red meat and cheese.
- **Hospital Bed:** Your hospital bed has a button to put your back up when you are in bed. You MUST remember to push the leg button down so the bed does not bend your knees. If you lie in bed with your knees bent you will have a much harder recovery process.
- **Venaflows:** You will have special wraps placed on your lower legs after surgery. These foot wraps attach to a pneumatic compression device. This modern technology is designed to improve lower limb blood flow.

Some key procedures which will promote healing and help prevent complications are described on the following pages.

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PREVENTING CIRCULATION PROBLEMS

Soon after surgery, you will be asked to perform gentle exercises. These exercises, such as ankle pumps, quad sets and gluteal sets, will help prevent circulation problems. They will also strengthen your muscles. Other exercises appropriate for you (some are reviewed later in this section) will be taught by the physical therapist and nursing staff.

To enhance your circulation, YOU will be expected to perform these exercises 10 times each, <u>every hour</u> while awake.

Quad Sets
Tighten your thigh muscle.

Try to straighten your knee.

Hold for 6 seconds.

Repeat this exercise approximately 10 times during a two minute period, rest for one minute, and repeat.

Continue until your thigh feels fatigued.

Gluteal Set

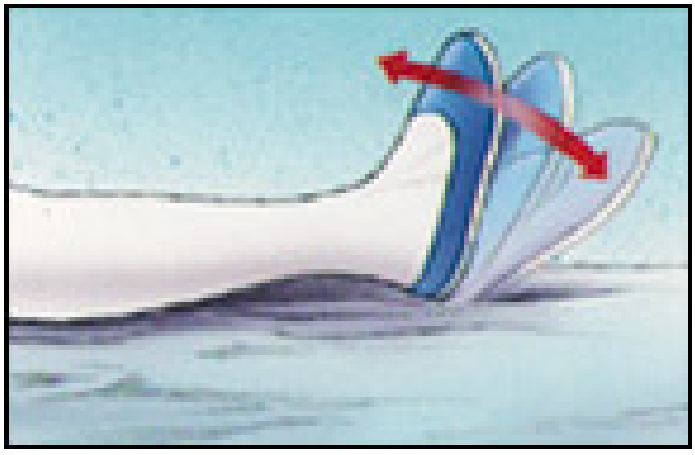
Lie on your back on a firm mattress

Pinch your buttocks together.

Hold for the count of 6.

Relax Continue these exercises periodically until full strength returns to your leg.

PREVENTING CIRCULATION PROBLEMS (continued)



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.

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PREVENTING LUNG PROBLEMS

After surgery, it is important to exercise your lungs by taking deep breaths. Normally, you may take deep breaths each hour, usually without being aware of it. They are spontaneous, automatic, and occur in the form of sighs and yawns.

However, when you are experiencing pain or drowsiness from the anesthesia, or from your pain medication, your normal breathing pattern can change. Therefore, you will be provided with an inspirometer by the nursing staff. A member of the staff will show you how to use your inspirometer.

Using the inspirometer will force you to take deep breaths which are necessary to expand the small air sacs of your lungs and help clear the air passages of mucous. This helps avoid fever post-op. We recommend that you use your inspirometer every hour while awake for the first several days following surgery .

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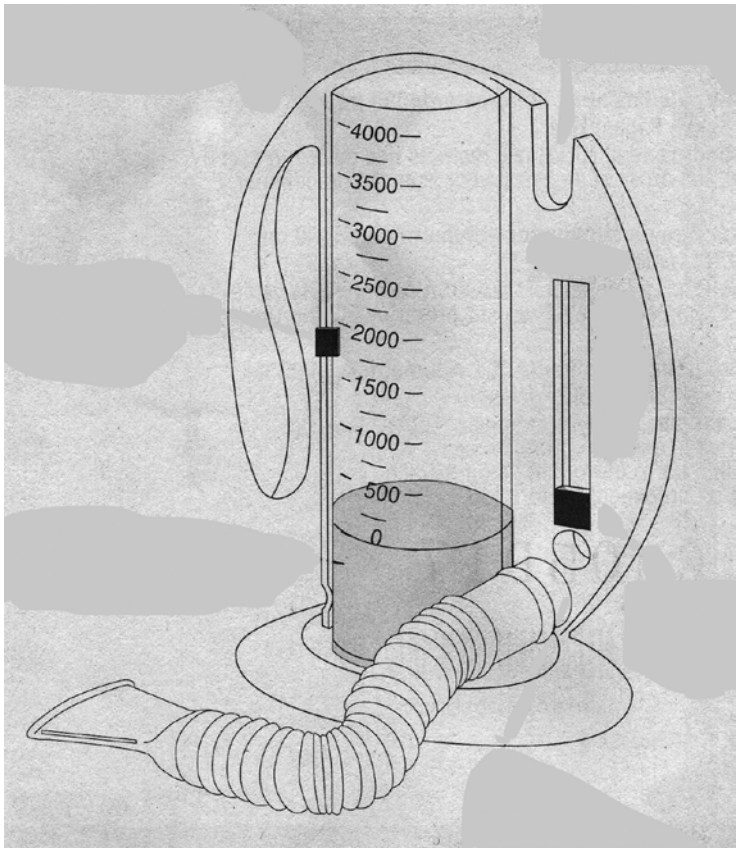
PREVENTING LUNG PROBLEMS (continued)

To achieve a slow Sustained Maximal Inspiration (SMI)…inhale at a rate sufficient to raise only the ball in the first chamber, while the ball in the second chamber remains at rest.

With the unit in an upright position, exhale normally; then place your lips tightly around the mouthpiece

For a higher flow rate…
Inhale at a rate sufficient to raise the first and second balls, while the ball in the third chamber remains at rest.
Exhale…

After performing exercise, remove the mouthpiece from your lips and exhale normally.



PREVENTING LUNG PROBLEMS (continued)

Coughing: Another excellent way to help breath and clear your lungs
Coughing is, of course, one of nature's important methods for clearing your lungs at any time…not just after surgery.

1. Breathe in deeply through your nose.
2. Hold your breath and count to 5.
3. Breathe out slowly through your mouth
4. ON the 5th deep breath, cough 2-3 vigorous coughs from your abdomen as you breathe out.
5. Make a habit of doing this 2-3 times hourly, especially when it is inconvenient to use your inspirometer.

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ANTICOAGULATION THERAPY

Phlebitis (inflammation of the veins of the legs) or Deep Vein Thrombosis (DVT), which refers to blood clotting in the veins of the leg, is a possible risk after total joint replacement surgery.

For the prevention of Deep Vein Thrombosis (DVT) after surgery, many patients will be prescribed an oral anticoagulant. The purpose of an oral anticoagulant is to prevent your blood from clotting.

Type of medication

Depending on your medical condition and preference of your surgeon, you will be prescribed with buffered Aspirin, Rivaroxaban, Warfarin, or an injection for anticoagulation for a short period of time.

If you are prescribed Warfarin, daily blood tests will be necessary to determine the dosage of medication required. The blood test measures the time it takes for a clot to form. Upon discharge home, weekly or bi-weekly blood tests will continue for the duration of the therapy. Your primary medical doctor or orthopedic surgeon will adjust the dose accordingly.

If you receive an injection, you will be taught to administer the injections on your own for when you leave the hospital if you go directly home.

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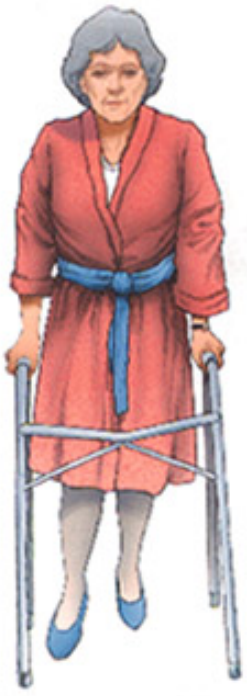
REHABILITATION FROM TOTAL KNEE REPLACEMENT

Your daily therapy sessions

Physical therapy and occupational therapy are an integral part of your post-operative care at NYPH and after you return home. You will usually be seen by a physical therapist (PT) and an occupational therapist (OT) after surgery. A physical therapist helps with strengthening, range-of motion, walking, balance, and endurance. An occupational therapist helps you regain independence with your activities of daily living (ADL) which include dressing, bathing, and using the toilet. Your occupational therapist may order you Adaptive Equipment / Devices to help you become more independent.

Your therapists will instruct you in your exercise program, which is directed toward improving your functional mobility by increasing the range of motion and strength of your legs.

For the first few days after surgery, some patients benefit from taking pain medication at least 30-45 minutes prior to their therapy session. You should discuss this with your nurse and/or therapist.



Beginning to walk

Your therapist will help you in sitting up with your feet over the bedside (we call it dangling). You will then stand with the assistance of a therapist or nurse, usually with a walker. As soon as possible, you will be allowed to bear full weight on the operative leg, and then will try walking.

As the days progress, you will increase the distance. Many patients progress to a straight cane within a few weeks after surgery.

REHABILITATION FROM TOTAL KNEE REPLACEMENT (continued)

Stair climbing

You will practice stair climbing (if appropriate) prior to discharge.

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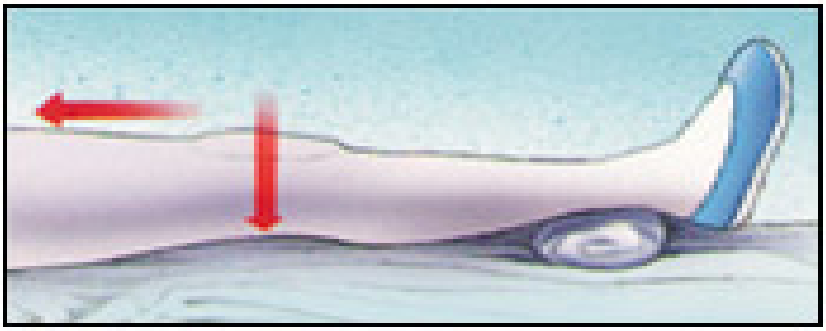
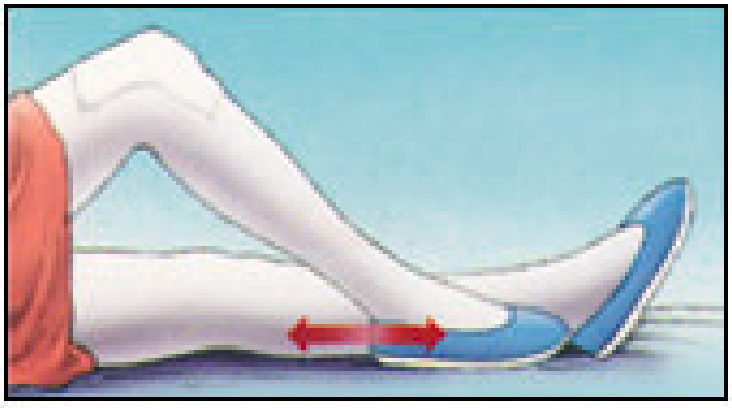
REHABILITATION FROM TOTAL KNEE REPLACEMENT (continued)

Other examples of your exercise program may include the following:



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.

REHABILITATION FROM TOTAL KNEE REPLACEMENT (continued)

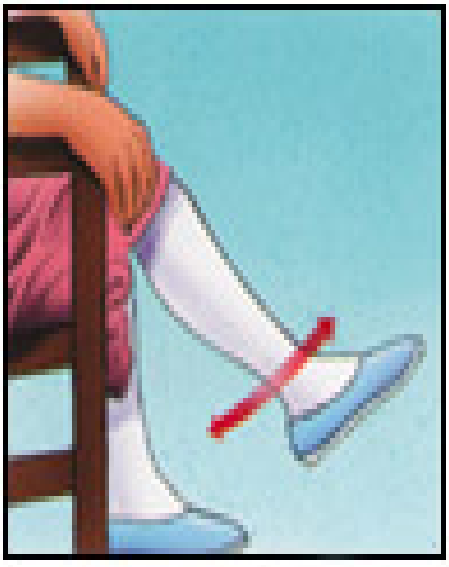
Sitting Supported Knee Bends

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.



Sitting Unsupported Knee Bends

While sitting at bedside or in a chair with your thigh supported, bend or straighten 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 and thigh forward in the chair to increase your knee bend.

Hold for 30-45 seconds.

Straighten your knee fully.

Repeat several times until your leg feels fatigued or until you can completely bend or straighten your knee.

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REHABILITATION FROM TOTAL KNEE REPLACEMENT (continued)

Looking ahead
Planning for recovery after your surgery:

A Social Worker or Care Coordinator will meet you after you are admitted to the hospital to help arrange your post hospital needs. Depending on your physical condition and progress with therapy in the hospital, you may need additional services either at home or in another facility. The Social Worker or Care Coordinator will assist in making these referrals and contacting your insurance company for authorizations. We highly recommend that you contact your insurance company to learn about your benefits and limitations as insurance coverage benefits vary, and can change at any time.

When contacting your insurance company, find out which home care agencies and facilities are in network. You will also need to find out if transportation is covered, and if so, what type(s). If you anticipate that you will need to go to an inpatient rehab facility after your surgery, it is recommended that you visit the facilities of your choice. The Social Worker will review these choices with you during your hospital stay and make referrals accordingly. Medicare regulations require that you select 3 facilities (for Acute Rehabs) and 5 facilities (for Sub-Acute Rehabs).

If you are being discharged home after your surgery, we recommend that, at least during the first week, you arrange to have a family member or neighbor/close friend be available to assist you with the routine of daily living: meal preparation, shopping, cleaning, laundry etc. This will ease your transition from hospital to home. In this way, you can resume these activities when you feel most capable of doing so.

If you do not have family/friends to help you, some patients qualify for Certified Home Care services. If your doctor prescribes physical therapy and/or skilled nursing care at home after discharge and if your insurance covers these services, you may qualify for some assistance. This assistance is time-limited, but is available <u>if</u> covered by your insurance company for as long as you need this level of care.

So that you can plan ahead, we recommend that, before your surgery, you ask your doctor if he/she expects that you will require any special medical care after discharge. Your insurance company will determine which services will be covered based on your current condition.

Remember, you make the difference. It is extremely important that you understand that **your** motivation and **your** participation in **your** therapy program is a vital element in the speed and success of your long-range rehabilitation, as well as getting ready to go home

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PROGRESS GUIDELINES: GENERAL DAILY GOALS after TKR (MAY VARY)

General Guidelines (Items may vary based on individual surgeon)

- Day 0 – Day of Surgery- Post operative
  - Routine X-rays in Recovery Room
  - Routine blood tests in Recovery Room
  - Transfer from Recovery Room to Hospital bed
  - Pain Medicine
  - Physical Therapy Evaluation
  - Dangle at the edge of the bed, out of bed to a chair or walk if medically cleared and appropriate
  - Clear Liquid Diet or advance to regular diet
  - Intravenous antibiotics (for total of 24 hours)

- Post op Day 1
  - Physical Therapy treatment
  - Occupational Therapy evaluation
  - Social work or Care Coordination evaluation to help with discharge planning
  - If you have an IV PCA you will probably switch to Oral pain medication (depending on surgeon) on this day
  - Routine blood tests
  - Foley catheter removed
  - Out of bed
  - Ambulation with assistance from Physical Therapy/Nursing (twice per day)
  - Regular diet
  - Medication to prevent blood clots (for duration of hospital stay)
  - Patient Education
  - Discharge home with homecare if meeting goals

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PROGRESS GUIDELINES: GENERAL DAILY GOALS after TKR (MAY VARY)

- Post op Day 2
  - Ambulation with Physical Therapy/Nursing (twice per day)
  - Occupational Therapy
  - Oral pain medication
  - Regular diet
  - Patient Education
  - Plans set for discharge (with Social Worker/Care Coordinator). Discharge home if meeting goals

- Post op Day 3
  - Oral pain medication
  - Ambulation with Physical Therapy/Nursing/Occupational Therapy
  - Patient Education and discharge instructions
  - Discharge to home/rehabilitation facility – approximately 10 AM
  - For those of you who are going home, please arrange for your ride to pick up you up at 10AM

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DISCHARGE INSTRUCTIONS

Medication prescription from your doctor

Just before leaving, your doctor will give you a pain medication prescription for you to get filled at your own pharmacy. **If any of your personal medications are with the nurses or stored at the Hospital, make sure you get them back at this time**.

Surgical site care

Infections rarely happen after surgery, but you must remain alert to the possibility.
Check the surgical site daily for signs of wound infection. Symptoms are:

a. Increased redness
b. Increase in swelling
c. Increase in pain
d. Any drainage
e. Oral temperature greater than 101.5 F

If any of the above symptoms occur, please notify your surgeon immediately.

If your sutures or staples have been removed, you may shower. Make sure you dry the surgical site gently, but completely. Don't peel sterile-strips from incision. They will fall off by themselves within 3 to 6 days.

If you are discharged with sutures or staples in place, you may not shower unless otherwise advised by your surgeon. Please keep surgical incision dry at all times. DO NOT wear tight fitted clothes over incision. To avoid friction to the surgical area, you may tape a dry sterile gauze pad over incision.
If you are discharged with an AquaCel dressing (brown waterproof dressing), then you may shower with this dressing in place. Do not soak in a tub. The dressing will remain for one week. After this, you may apply sterile gauze if there is any drainage.

DISCHARGE INSTRUCTIONS (continued)

Pain Management

1. Continue to apply ice packs to operation area for 20-minute intervals a few times a day. Especially after activity, cold therapy will continue to reduce post-operative swelling and provide you with greater comfort.

2. Take your pain medication as prescribed by your doctor. Remember to take it before the pain becomes too severe. It will help reduce the pain sooner. Do not forget to take your stool softeners.

3. In the event that the pain medication does not work, or you are experiencing unpleasant side effects, do not hesitate to call your orthopedic surgeon.

4. If you are taking medication, please AVOID alcoholic beverages.

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DISCHARGE INSTRUCTIONS (continued)

Long-range protection against infection: <u>Antibiotic Prophylaxis</u>

Although it is very rare, the bloodstream carrying infection from another part of the body can infect an artificial joint. Therefore, it is important that your medical doctor treat every bacterial infection (pneumonia, urinary tract infection, abscesses, etc.) promptly. Routine colds and flu, as well as cuts and bruises, do not need to be treated with antibiotics.

To prevent infection at any time in the future, you should take Amoxicillin*:

2 grams one hour before having any of the following procedures:

- Skin Biopsy
- Podiatry procedures which involve cutting into the skin
- Cystoscopy
- Colonoscopy/Endoscopy
- Dermatologic procedures which involve cutting into the skin
- Routine dental cleaning or any dental procedures, including root canals

***Note: If you are unable to take Amoxicillin, use Clindamycin:**
600 milligrams one hour before the procedure. Amoxicillin is a form of Penicillin, so if you are allergic to Penicillin, you should take Clindamycin instead.

DISCHARGE INSTRUCTIONS (continued)

You do **not** need to take antibiotics for the following procedures:

- Pedicures/Manicures
- Gynecologic exams
- Cataract Surgery
- Injections or Blood work

It is important that you tell your doctor and dentist that you have an artificial joint, so that they may remind you to take antibiotics, and to prescribe them, as appropriate. In addition, they may wish to consult with your Orthopedic Surgeon.

If you have any questions about germs or infections, or any type of procedure, you should call your Orthopedic Surgeon.

Your rehabilitation program at home

This program will be an extremely important part of your continuing recovery. Please refer to the Home Recovery Section. If you have questions, ask your physical therapist for answers before you leave.

When to begin driving your car

Most patients are able to resume driving by about four weeks after surgery. It depends upon your leg positioning, strength and coordination. First, check with your surgeon.

DISCHARGE INSTRUCTIONS (continued)

Sleep and Depression
Surgery is a major event in your life. It is common to have sleep problems after surgery. Minimize your caffeine intake and your daytime naps. Optimize your night routine to get the best sleep that you can. This may be having a warm glass of milk, taking melatonin, or taking a pain pill before you go to sleep so you do not wake up from soreness. Very rarely will you need a sleeping pill. Talk to your doctor if you are having difficulty sleeping.

Post-surgical blues can occur. You may not be used to taking it slow and being at home for such long periods of time. The medication may also affect your mood. Talk to your doctor if you are feeling blue.

Follow-up appointments with your orthopedic surgeon
Regardless of how well you feel after you have been home for a while, follow-up appointments with your surgeon are essential. Call his office to arrange mutually convenient dates and times.

Additional specific discharge instructions
Your surgeon may have additional instructions for you to follow upon discharge. You can record them here as a reminder. This is also a good place to make notes about questions you may have related to your discharges.

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HOME RECOVERY & EXERCISE

Recovery At Home

During the first few weeks at home, you adapt what you learned at the hospital to your own setting. You will need to prepare your home for your recovery.

1. You will need a firm chair with arms. It is easier to get up and down from a firm chair with armrests. Add two (2) firm pillows to low chair to provide proper height, as it is easier to get up and down from a higher chair surface rather than a low surface.

2. Make sure your bed height is at least 18 inches high, as it will be too difficult to get up and down from a low bed or a mattress on the floor. Add a second mattress to your bed if necessary.

3. General safety Measures:
   - Be sure all walking areas are free of clutter.
   - Remove throw rugs.
   - Watch for small pets and children.
   - Make sure hallways/stairways and bathrooms are well-lighted.

4. Store items within easy reach, not in high or low cabinets.

5. Prepare meals ahead of time and store in freezer. (Helpful hint: have your favorite home delivery numbers handy and go grocery shopping prior to coming into the hospital).

6. **If you are discharged with staples still in place, you may not shower unless otherwise advised by your surgeon.** After sutures or staples are removed, you may take a shower, but not a tub bath, until given permission by your surgeon.

HOME RECOVERY & EXERCISE (continued)

Showering/Dressing
You cannot take a bath or shower until your surgeon gives permission. If you have any questions about this before you are discharged, please ask your nurse.

Showering in a tub/shower
Your new knee(s) may make it easier for you to get in and out of a tub/shower than before. However, in both the short and long run you should be concerned with safety as you enter and leave a tub/shower. Equip your tub/shower with a non-slip surface. Please arrange for this prior to your hospitalization, if possible.

Showering is good time to exercise your knee(s)
Bending your knees in order to wash your feet is a normal movement. Bend your knee to its maximum for washing. Then repeat the movement a few extra times as an added exercise. The warm shower water could help offset any initial discomfort.

Dressing
With a greater range of motion, you should be able to dress your lower body more easily shortly after your surgery**.**

Dressing is good time to exercise your knee(s)
Please focus on bending your knee(s) as far as possible when you dress. Think of this as another added exercise. Any discomfort you feel now will be step toward freedom from discomfort in the future.

As you know, much of what you normally do each day does not require bending your knee(s) to maximum. However, both showering and dressing do require extra bending of your knee(s). Please take advantage of this situation to repeatedly work on your knee range of motion as a normal part of your daily routine.

HOME RECOVERY & EXERCISE (continued)

Home Exercise Program (Perform only those ordered by your therapist or doctor.)

1. Quad Set

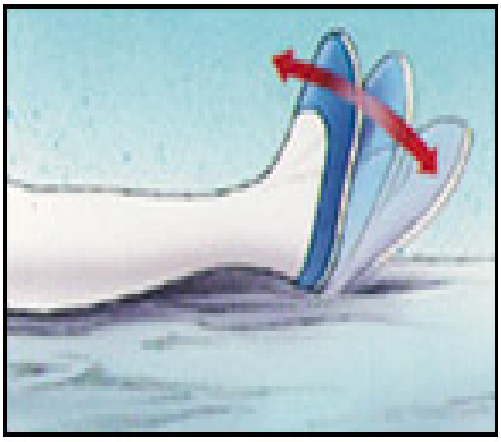
- Lie on your back on a firm mattress
- Tighten knee muscles of operated leg. This can be done by straightening your knee as much as possible and then pushing the back of your knee into the bed.
- Hold for the count of 6. Relax.
- Perform _____ repetitions, _____ times a day.

2. Gluteal Set

- Lie on your back on a firm mattress
- Pinch your buttocks together.
- Hold for the count of 6. Relax.
- Perform _____ repetitions, _____ times a day.

HOME RECOVERY & EXERCISE (continued)

3. Ankle Pumps

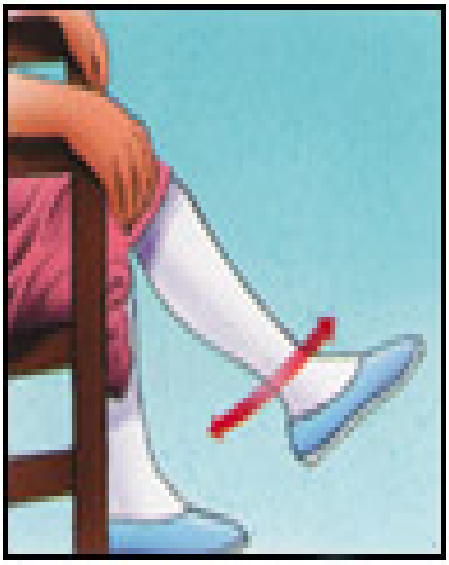


Ankle Pumps

Move your foot up and down rhythmically by contracting the calf and shin muscles.

Perform _____ repetitions _____ times a day.

4. Knee Bend



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.

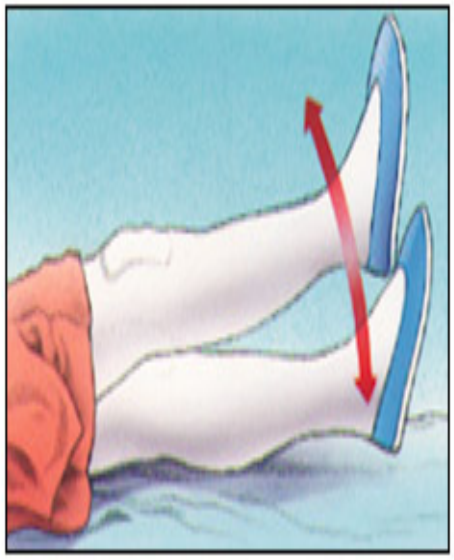
Hold for 30-45 seconds.

Straighten your knee fully.

Perform _____ repetitions _____ times a day.

HOME RECOVERY & EXERCISE (continued)

5. Straight Leg Raises



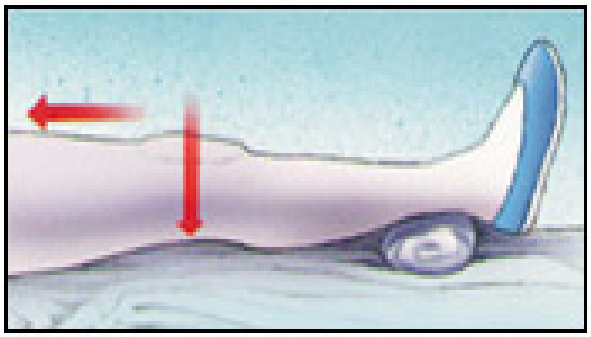
Straight Leg Raises
Tighten the thigh muscle with your knee fully straightened on the bed, as with the Quad set.

Lift your leg several inches. Hold for five to 10 seconds. Slowly lower.

Perform _____ repetitions _____ times a day.

(If you have had operations for both knees, you may have to keep one leg extended as you straight leg raise the other.)

6. Knee Straightening



Knee Straightening Exercises
Place a small rolled towel just above your heel so that it is not touching the bed.

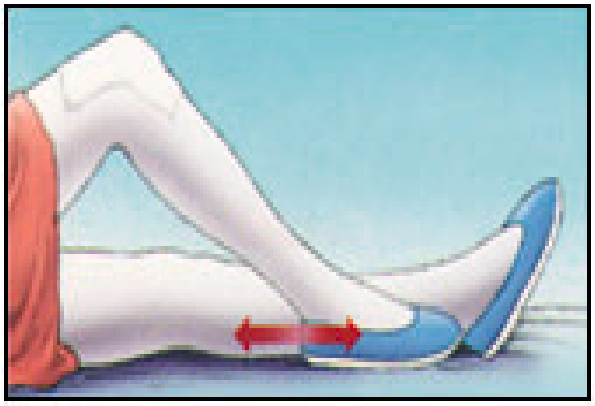
Tighten your thigh. Try to fully straighten your knee and to touch the back of your knee to the bed.

Hold fully straightened for five to 10 seconds.

Perform _____ repetitions _____ times a day.

HOME RECOVERY & EXERCISE (continued)

7. Bed Supported Knee Bends



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.

Perform _____ repetitions _____ times a day.

8. Sitting Supported Knee Bends

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.

Perform _____ repetitions _____ times a day.

HOME RECOVERY & EXERCISE (continued)

9. Stair stretch

- Place your operated leg on the first step.
- Keeping non-operated leg on floor, lean forward towards your operated leg, bending the knee as much as possible
- Hold for the count of 6.
- Relax, straighten knee.
- Perform _____ repetitions, ____ times a day.

10. Hamstring isometrics

- Lying on your back, bend operated knee slightly.
- Push heel into bed.
- Hold for the count of 6.
- Perform _____ repetitions, _____times a day.

Your physician and therapist may have additional exercises added to your rehabilitation program. Please refer to any additional materials provided to you by your therapist and physician.

HOME RECOVERY & EXERCISE (continued)

Remember, you make the difference!

Your commitment to doing exercises, as instructed, is a major factor in your recovery.

Some discomfort and stiffness after exercise is normal, especially during your first few weeks at home. Your body builds strength and your knee gains flexibility, while you develop new degrees of mobility. Your thoughtful combination of exercise with rest, ice packs, and pain medication, is necessary, and will assure you maximum benefit from your Total Knee Replacement Surgery.

Additional Instructions

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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HEALTHFUL EATING FOR THE SURGERY PATIENTS

Before Your Surgery

If you were following a physician-prescribed diet before hospitalization, it is important that this information be conveyed to the physician and registered dietitian. It is also essential that you let your doctor or nurse know if you have recently been taking any of the following: vitamins, minerals, herbals, and nutrition supplements. By letting them know what you are taking, they can avoid any possible problems with the medications and treatments you may be getting during your hospital stay.

Unless you have medical reasons not to, try to increase your protein intake the weeks prior to surgery and minimize your carbohydrate intake. This will help your body rebuild tissue and heal after surgery.

The Day of Surgery

You cannot eat or drink anything before the surgery, not even water. Sips of water may be allowed with your medicines as directed by your doctor.

Hospital Stay

During your hospital stay, it is important to consume balanced, nutritious meals with adequate calories and nutrients to maintain your nutritional status. This will enable your body to heal with less risk of complications, such as infection or poor wound healing.

There is no “special” diet for Total Hip replacement. After the surgery, you will be on a regular diet. You will get liquids such as juice.

A therapeutic or modified diet such as a sodium-restricted diet, low fat diet, or diabetic diet may be ordered by your physician based on your medical condition. Your registered dietitian will visit you during your hospital stay to provide diet instruction on the therapeutic diet.

Keep in mind that your body is healing and requires adequate nourishment for tissue regeneration at this time. **Therefore, your hospital stay is not a good time to begin a weight loss program.**

If you have questions or concerns about your diet or wish to speak with your registered dietitian, please call: 4-FOOD or 43663

(The above number can only be reached from inside the hospital.)

HEALTHFUL EATING FOR THE SURGERY PATIENTS (continued)

Nutrition After Hospitalization

After you leave the hospital, your diet continues to be important for successful healing, as well as for building the muscle structure and strength required to take full advantage of your knee(s). Continue a well-balanced diet and follow any diet instructions given to you during your hospital stay.

If you are interested in weight loss, discuss the appropriate time to begin a program with your physician and registered dietitian. Outpatient nutrition counseling can be arranged by calling the Nutrition Wellness Center at 212-746-0838.

Constipation may occur after surgery because of reduced physical activity and the use of pain medication. To solve this problem:

1. Drink at least eight 8-oz. glasses of water daily.

2. Add fiber to your diet by eating at least 5 servings of fruits and vegetables and 3-4 servings of whole grains such as multigrain bread, brown rice, and whole grain cereals.

3. Eat yogurt with live culture.

4. If you do experience constipation, you may take an over-the-counter stool softener or fiber supplements.

Continue to eat well for your health and well-being!

Center for Hip & Knee Replacement

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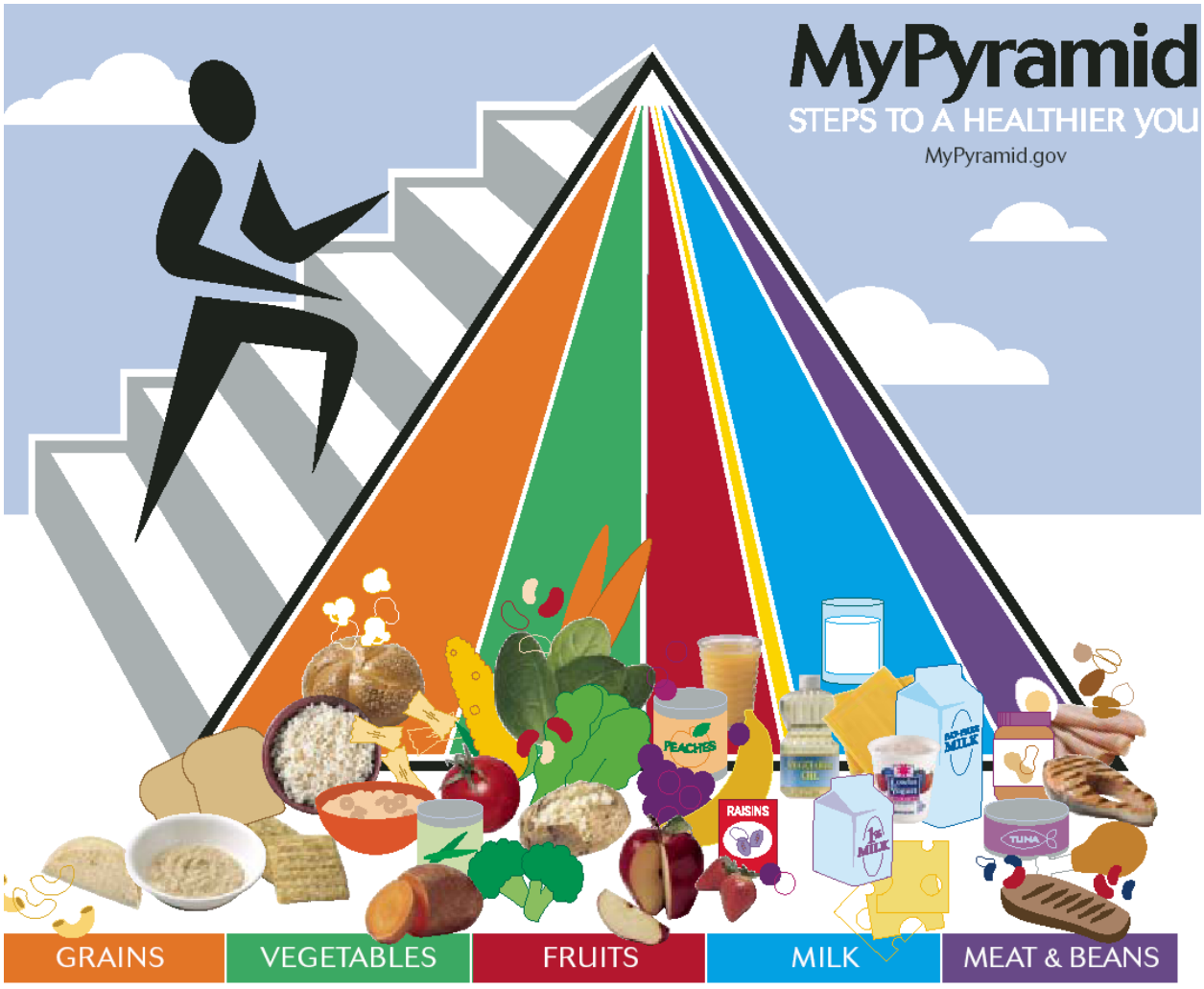
FOOD GUIDE PYRAMID
A guide to healthy daily food choices



The Pyramid outlines what to eat each day. It is not a rigid prescription, but rather, a general guide that lets you choose a healthful diet that's right for you. The Pyramid calls for eating a variety of foods to get the nutrients you need and, at the same time, the right amount of calories to maintain a healthy weight. Each group provides some, but not all, of the nutrients you need. Foods in one group cannot replace those in another. Therefore, no one food group is more important than anothers.

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GRAINS Make half your grains whole	VEGETABLES Vary your veggies	FRUITS Focus on fruits	MILK Get your calcium-rich foods	MEAT & BEANS Go lean with protein
Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day 1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or 1/2 cup of cooked rice, cereal, or pasta	Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens Eat more orange vegetables like carrots and sweetpotatoes Eat more dry beans and peas like pinto beans, kidney beans, and lentils	Eat a variety of fruit Choose fresh, frozen, canned, or dried fruit Go easy on fruit juices	Go low-fat or fat-free when you choose milk, yogurt, and other milk products If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages	Choose low-fat or lean meats and poultry Bake it, broil it, or grill it Vary your protein routine – choose more fish, beans, peas, nuts, and seeds
Eat 6 oz. every day	Eat 2 1/2 cups every day	Eat 2 cups every day	Get 3 cups every day; for kids aged 2 to 8, it's 2	Eat 5 1/2 oz. every day

For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.

Find your balance between food and physical activity

- Be sure to stay within your daily calorie needs.
- Be physically active for at least 30 minutes most days of the week.
- About 60 minutes a day of physical activity may be needed to prevent weight gain.
- For sustaining weight loss, at least 60 to 90 minutes a day of physical activity may be required.
- Children and teenagers should be physically active for 60 minutes every day, or most days.

Know the limits on fats, sugars, and salt (sodium)

- Make most of your fat sources from fish, nuts, and vegetable oils.
- Limit solid fats like butter, stick margarine, shortening, and lard, as well as foods that contain these.
- Check the Nutrition Facts label to keep saturated fats, *trans* fats, and sodium low.
- Choose food and beverages low in added sugars. Added sugars contribute calories with few, if any, nutrients.

MyPyramid.gov
STEPS TO A HEALTHIER YOU

U.S. Department of Agriculture
Center for Nutrition Policy and Promotion
April 2005
CNPP-15

USDA

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HEALTHFUL EATING FOR THE SURGERY PATIENTS (continued)

**What counts as one serving?

Bread, Cereal Rice & Pasta Group	Vegetable Group	Fruit Group	Milk, Yogurt, & Cheese Group	Meat, Poultry Fish, Dry Beans Eggs & Nuts Group	Fats, Oils & Sweets Group
1 slice of bread ½ cup of cooked rice or pasta ½ cup of cooked cereal 1 ounce of ready to eat cereal	½ cup of chopped, raw or cooked vegetables 1 cup of leafy raw vegetables	1 piece of fruit or melon wedge ¾ cup of juice ½ cup of canned fruit ¼ cup of dried fruit	1 cup of milk or yogurt 1-1/2 ounces of natural cheese 2 ounces of processed cheese	2-3 ounces of fish, cooked lean meat, or poultry Count ½ cup of cooked beans, or 1 egg, or 2 tablespoons of peanut butter as 1 ounce of lean meat	LIMIT calories from this group, especially if you need to lose weight

The amount you eat at one time may be more than one serving: for example, a dinner portion of spaghetti may count as anywhere from 2-5 servings (1-2 ½ cups), depending on how much is consumed.
It is important to know the appropriate size of each food group to help you eat in moderation. In the next section, you will find sample meal patterns based on various calorie levels.

HEALTHFUL EATING FOR THE SURGERY PATIENTS (continued)

My Meal Pattern (from mypyramid.gov)

Below are suggested diet plans for different calorie levels showing the amount of food recommended per day from each food group. Most women fall under the 1400-calorie level and most men under 1800-calorie level.

	1400 calories	1800 calories	2200 calories
Grains	5 servings	6 servings	7 servings
Vegetables	3 servings	5 servings	6 servings
Fruits	3 servings	3 servings	4 servings
Milk	2 servings	3 servings	3 servings
Meat and Beans	4 oz	5 oz	6 oz
Oil & Discretionary Calories	Aim for 4 tsp of oil	Aim for 5 tsp of oil	Aim for 6 tsp of oil

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OTHER HOSPITAL SERVICES

Pastoral Care: The Pastoral Care Department has trained pastoral care providers: ecumenical chaplains, ordained ministers, priests, rabbis, Eucharistic ministers, who are available to you and your family upon request. Services are televised on channel 6 in patient rooms. Additional holiday and special services are held throughout the year.

CONTACT NUMBERS:

Pastoral Care 212.305.5817 or ext. 55817

The Pastoral Care Office is open Monday through Friday, 8:30AM – 5PM in the Presbyterian Hospital building, next to the Security Department & Garden Café.

The PAULINE A HARTFORD MEMORIAL CHAPEL is adjacent to the office in separate building is always available for meditation.