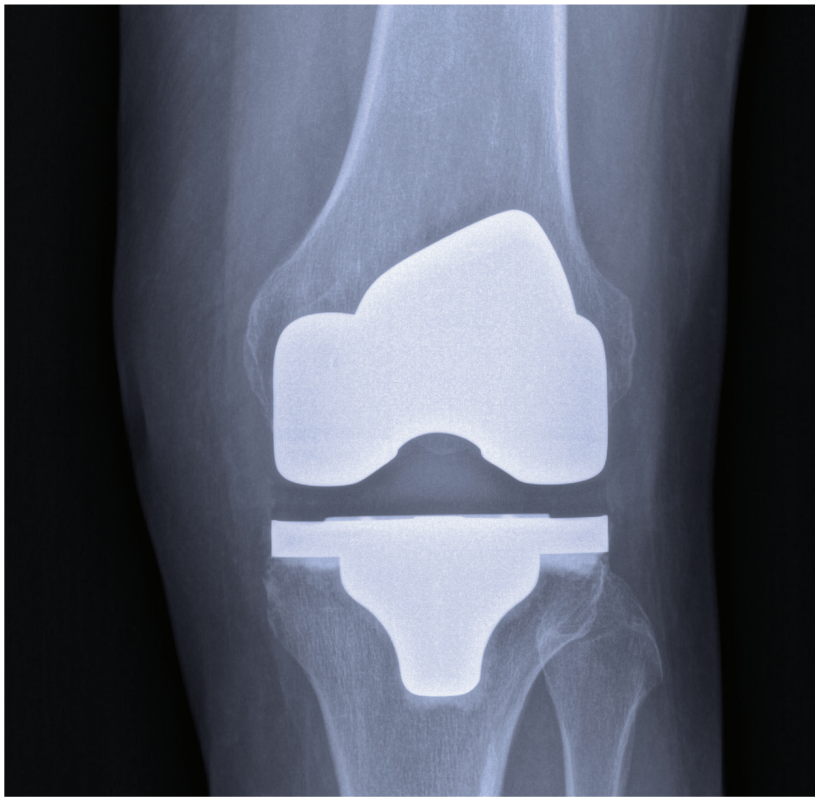
Knee Replacement Surgery Patient Information Manual

Maximizing Your New Knee(s)



UFHealth
UNIVERSITY OF FLORIDA HEALTH

UF HEALTH REHAB CENTER – SHANDS HOSPITAL

UFHealth.org/shands-rehab-center-orthopaedics-and-sports-medicine-institute

www.rehabcenters.UFHealth.org

INTRODUCTION

Welcome to UF Health! Thank you for choosing us for your knee replacement surgery. Our premier orthopaedic surgery team will take great care of you.

The University of Florida Orthopaedic Surgery program began in 1960 as a division of the College of Medicine Department of Surgery. In 1975, the Division of Orthopaedic Surgery achieved full departmental status. Our UF Health Orthopaedics and Rehabilitation team has earned a reputation for excellence in research, teaching and clinical care. Our commitment to patient health care motivates every aspect of our efforts, from the bedside, to the classroom, to the research lab.

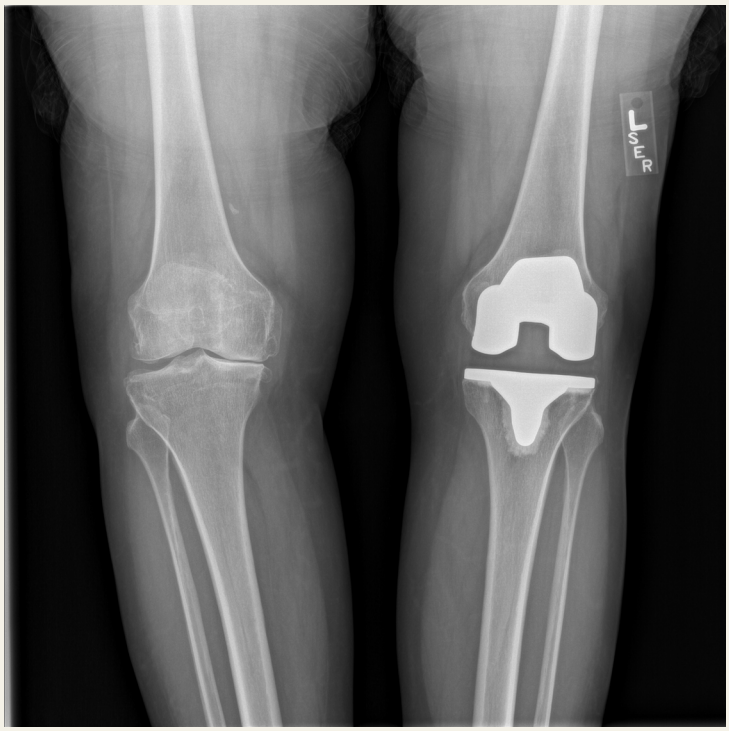
Your doctor has explained your procedure and what to expect following surgery. The purpose of this guide is to provide you with more information about what to expect during recovery, what you can do to prevent any complications and how you can maximize your outcomes. Although the health care team will assist you in your recovery, **you and your family** are the most important members of the team. We believe knowledge and preparation before and after the operation will make your recovery easier. If you have questions along the way, be sure to ask them. We are here to help you achieve your goals and we want you to be satisfied with your entire experience. Our goal is **excellent service**, from start to finish.

So, let's begin.

YOUR "NEW" KNEE

Your doctor has explained how your painful knee will be replaced with an artificial knee joint called a prosthesis. The prosthesis is designed to work in the same way as your natural knee. There are two types of knee arthroplasty: **total knee arthroplasty** and **unicompartmental arthroplasty**. You need to ask your orthopaedic surgeon the difference between the two and who qualifies for the different types. Your surgeon will carefully choose the best type of prosthesis for you. Some patients will need a total knee arthroplasty or a partial knee replacement while others may have both knees operated on at the same time. The pictures below show the parts of the prosthetic knee.

Arthritic knee **Prosthetic knee**



Your new knee will function like a door hinge. Like the natural knee, the prosthesis will give you smooth, pain-free movement. A prosthesis will be inserted to "replace" your deteriorated joint areas. The prosthesis is custom-fit to you by your surgeon. You will need to do exercises to strengthen your muscles and give your knee time to heal. In addition, you will be taught exercises that make all of the muscles surrounding your knee stronger and will increase the movement of your knee. You should not attempt to kneel for at least six weeks following surgery. The amount of discomfort will be your guide for how much kneeling you can do after that time.

Your prosthetic knee is meant to be moved. Please walk and do your exercises often. At least two times a day for exercises and 3 walks of a distance of at least 30 feet each. Progress distance a minimum by 10 feet each day or whatever you can tolerate.

ANSWERS TO SOME FREQUENTLY ASKED QUESTIONS ABOUT TOTAL KNEE SURGERY

Are there any major risks?

Most surgeries go well with no complications. There are two serious complications that are most concerning – infection and blood clots. To avoid these, antibiotics are used during and after surgery as well as blood thinners. Special precautions are taken in the operating room to reduce the risk of infection.

Why do I need a care coach?

A care coach is the person that has agreed to stay with you for at least 1 week , day and night after surgery. This person will be helping you with light house duties, providing stand by assistance for mobility, especially when you walk to and from the bathroom and helping with pets and meals.

Most patients go home after surgery, and you can decide whether in home therapy or outpatient therapy is the best choice for you . In rare instances, patients may need a rehab placement if mobility level, care coach availability, or home setting is not ideal for discharge directly home.

It is important to know what your insurance company will pay for in regards to therapy coverage after surgery.

Will I need equipment before I go home?

YES. You will be using a basic 2 wheeled walker when you go home. The physical therapist, physician and case manager will help you decide which is safest and how long to use each device. A three-in-one bedside commode will likely be needed. Equipment that is recommended for your home may be covered by insurance. The case manager will secure these items for you before discharge. Additional items, such as a tub bench and grab bars in the tub or shower, may be helpful. However, insurance companies will not pay for them or the installation. These items would be best purchased and installed before your surgery. It is important to note that a walker and a 3 in 1 commode are only covered every 5 years by insurance. If you already this equipment, please let your discharge planner know.

4 wheeled walkers are not desirable initially. In Joint Education class, we discussed that you will require a 2- wheeled walker for home use initially . The walker with a seat and brakes cannot be used until you are more steady on your feet. This is for your balance and safety.

ANSWERS TO SOME FREQUENTLY ASKED QUESTIONS ABOUT TOTAL KNEE SURGERY *(continued)*

Will I need therapy when I go home?

YES. Home care physical therapy and perhaps even Occupational Therapy or outpatient physical therapy will be discussed with you and arranged by the case manager while you are in the hospital. In most cases, home care physical therapy is set up for three visits a week for two weeks. Afterword, you will likely go to outpatient physical therapy. Outpatient physical therapy is usually three times a week. The length of time required for therapy varies with each patient. Outpatient PT is desirable as this encourages you to get up and get moving and gets you out into the community. You can choose the clinic you would like to attend, so look for one that will provide the excellent care you require for your rehabilitation.

When will I be able to drive?

You cannot drive while taking pain medication; it is against the law. Your physician must clear you to drive, whether you had a left or a right knee done. You will need a ride for your outpatient surgery appointments until you are cleared to drive.

Do you recommend any restrictions following surgery?

YES. High impact activities such as running, tennis and basketball are not recommended, and kneeling on your new knee is strongly discouraged.

Will I notice anything different about my knee after surgery?

YES. Your knee could be swollen for three to six months after surgery. You may notice some clicking noise when you walk; this is normal and is the result of the artificial surfaces coming together. You may have some numbness on the outside of your scar which may last for a year or more, but this is not serious. You may have soreness in your knee for three to six months after surgery; this will go away.

WEIGHT-BEARING PRECAUTIONS

You will be instructed and educated about how much weight you may place on your leg. Follow your weight-bearing instructions from your surgeon and physical therapist.

- **Weight-bearing as tolerated (WBAT)** indicates that you may place as much weight as you are comfortable with on your operated leg. Your physical therapist will also instruct you on proper techniques.
- **Partial weight-bearing (PWB)** allows you to place 20-40 pounds of pressure on your operated leg.

During your hospitalization, physical therapists will teach you how to properly follow weight-bearing instructions. Please maintain your weight-bearing status as instructed until your surgeon tells you otherwise. Most patients are weight bearing as tolerated with their assistive device.

ACTIVITY TIPS TO PREVENT FALLS

You will be expected to learn and follow your exercises as you recover. The successful outcome of your surgery will depend on how much you take responsibility for your own care and rehabilitation. The goal is to return to as much independence as possible and perform your own daily activities.

Here are some general rules to follow:

- Let pain be your guide when moving your leg or hip.
- Use chairs with armrests to help you stand up and sit down.
- Always push up from the surface you are coming from. Do not lean and pull on walker.
- Avoid waterbeds.
- Avoid low, soft sofas and chairs. If necessary, add firmness to low or soft chairs by using pillows or folded blankets.
- Use your walker as instructed.
- **Do not drive** until you are cleared by your surgeon's office. You may ride in a car but try to keep the trips to less than one hour. If longer trips are necessary, you may need to take breaks each hour. **Under no circumstances are you to drive while on pain medication.**
- **Do not** kneel on your operated knee until your surgeon says it's okay.
- **Do not** participate in any sports for six weeks.

ACTIVITY TIPS TO PREVENT FALLS *(continued)*

Exercising your knee is a vital part of your recovery

Your physical therapist will also teach you and your family exercises to strengthen your muscles and increase your knee motion. It is very important that you do these exercises at least twice a day. This will start on the day of surgery. You should know your exercises well if you have prepared by attending Joint Replacement Education Class, have watched the videos on the web site, and have reviewed the exercises found in this booklet. and will continue for six weeks. You and your care coach should be doing exercises before your surgery if you are able, and throughout your hospital stay as well, independent of your therapy sessions. Your knee is meant to be moved!

You will not be placing a pillow under your knee after your surgery. This is to allow for full extension and stretching of your knee to keep it from getting stiff. Your goal is at least 90 degrees of bend in your knee within a few days after surgery!

SWELLING POST SURGERY

Control of Swelling

Another important factor in your recovery will be controlling any swelling you might have. The better the swelling is controlled, the easier it will be for you to move and strengthen your knee.

- Apply a cold pack/wrap to your knee for twenty minutes following all exercise and every four hours if you are in a lot of pain. You may have gone home with an ICE Machine that circulates cool water around your knee. While this device is great, you can make your own ice packs easily by using 4 parts water to 1 part rubbing alcohol with a gallon or smaller ziplock bag.
- Use the compression socks your were given in the hospital for 4 weeks post surgery. You must wear them on both legs. They should be thigh high in length. There are many alternatives in sporting stores if you prefer a different method for swelling control. You will wear these during the day, off at night while sleeping, for 4 weeks. Your surgeon may allow you to wear compression just on the side of your operation, but you must ask for approval for this.
- When sitting, place a pillow under your calf (not under your knee).

Use of ice at home:

The use of ice after knee surgery has the following purposes:

- To decrease swelling and the sensation of warmth in your knee
- To relieve pain, especially following exercise
- To relieve muscle spasms

Tips for applying ice:

Apply ice in a warm, comfortable environment. Even though you are only icing your knee, your whole body can feel colder. **If using homemade or gel ice packs, do not apply ice for more than 20 minutes at a time.**

ACTIVITIES AND EXERCISE *(continued)*

Different ways to apply ice:

- Fill a large sealable freezer bag halfway with ice, and then add water to cover the ice. Close the bag securely to prevent leaking. Wrap the bag in the towel and apply to knee.
- Use a commercially available gel cold pack. Wrap in a towel and apply to knee.
- To use the commercial cold wraps (if one was sent home with you from the hospital), fill the container with ice and water to the fill line inside the container. Connect the wrap to the unit by snapping the connectors together. Then plug the connector into the unit and then into the wall.

Care must be taken when using ice to avoid freezing the skin. Keep the incision dry by never putting the ice bag/wrap directly against the skin. Always use a washcloth or towel first against the skin.

SAFETY PRECAUTIONS: WALKER

To help prevent injuries and accidents, follow these guidelines:

- Remove all throw rugs and plastic runners from walkways in your home.
- Remove or tape down extension cords.
- Stay off wet or waxed floors, ice and grass.
- Wipe off wet crutch or walker tips.
- If you must travel over a slick surface, take short and purposeful steps.
- Use the elevator when possible; avoid escalators.
- If you have pets, be careful not to trip over them.
- If you must use the stairs, use stairs with sturdy handrails. (If your home has stairs, discuss this with your physical therapist during your hospital stay for problem-solving tips and practice if needed.)

WALKING WITH A DEVICE
Tips and tricks

Ambulation

Your physical therapist will teach you to walk properly with a walker or potentially with crutches, depending on your needs. The assistive device will help you walk and take weight off your operative leg so that your muscles can recover. It is important that you do not plant your leg and twist or turn your knee joint; this could damage your muscles and the stability of the joint. You will learn to walk on flat surfaces and on steps.

Walker tips:

- When getting up from a chair or toilet, do not use the walker for support. Push off of the armrest or seat with your hands.
- Once standing, place both hands onto the walker handles. Keep your head up and look straight ahead.
- Stand up straight.
- When walking, use the wheels on the front of the walker to move you forward. (If it has wheels, glide it like a grocery cart.)

Walking with a walker:

Most patients use a 2 wheeled, rolling walker for support. It is important to remember that you cannot pull up on a walker to get up. It will cause you to lose your balance. The walker is meant to off-load your leg somewhat while you are in the healing phase after surgery.

Walking with crutches:

Posture

- Keep your head up with your eyes focused about ten feet in front of you and your weight on your hands (**not** on your armpits).
- Your elbows should press the crutch tops against your ribs.
- When turning on crutches, keep the crutches in front of you and take small steps. **Do not** turn with your foot on the floor.

WALKING WITH A DEVICE

Tips and tricks *(continued)*

Stairs:

The phrase "Up with good, down with the bad" will help you remember which leg goes first.

Crutches - rarely used initially going up steps in the rare event that you are using crutches, we want you to be prepared!

- Balance on crutches with weight on your hands
- Push on crutches
- Start up the step with the non-operative leg ("up with the good")
- Step up with the operated leg
- Once balanced, bring crutches up to step

Going down steps

- Hold operated leg out in front of you
- Position toes of the non-operative foot over the edge of the top step
- Lower crutches down to the next step, keeping your weight on your hands
- Step down with operated leg ("bad goes down")
- Step down on the heel of your non-operative foot, lowering your body between the crutches and bending the hip and knee of your non-operative leg

Come to a firm balance after each move. Avoid quick moves to prevent falling.

The Robert Jones Dressing (RARE)

After knee surgery, your physician may request a special dressing be placed on your leg. For some physicians, the Jones dressing is used post-operatively for two days to apply gentle pressure to the limb to help control swelling and bleeding.

If you have this type of wrap on your leg, you will not be doing as much bending of your knee as the dressing will restrict this. You can work on straightening and lifting your operative leg, and you should be doing exercises that your therapist will show you.

The Jones dressing is usually removed within 48 hours of surgery, and you can perform range of motion exercises (as you are able) until the dressing is removed.

HOSPITAL CARE

**This section is just a brief summary of a typical hospital stay.
There are always exceptions.**

DAY OF SURGERY

- You will have remained NPO (no food or water allowed) before surgery.
- You will be taken to an area called pre-op holding or to the block room. You will speak to an anesthesiologist about a method of pain control called a peripheral nerve block. A peripheral nerve block provides a safe comfortable way to reduce pain during and after surgery. The nerve block delivers numbing medicine near the nerve and temporarily reduces messages from the nerve to your brain. A continuous infusion via a small pump is set up and will be kept in place during your stay. This form of medication is managed by the part anesthesia team.
- Your family will be shown where the waiting room is and where the doctor will find them after your surgery.

You will not hear, smell, or remember anything from your surgery, no matter what type of anesthesia you have. You will be in surgery for about 3 hours, including preoperative prep time and transition to the PACU or post-operative care unit.

Once you are awake enough to participate, therapy will begin education and mobility with you. Edge of bed sitting, standing, and walking 10 feet or more in the hallway are all great goals for the same day of surgery!

You will remain in the **POST OPERATIVE CARE UNIT (PACU)** until your room is ready on the unit. *If you are going home the same day of your surgery, will stay in the PACU until time of discharge. You will not go to a nursing floor. Therapy and nursing will work with you in the recovery room to get you ready for home.*

Patients who have not met criteria to discharge directly home from the recovery room will be re-evaluated by the surgeon. Your surgeon may decide to admit you for a brief overnight stay. If that is the case, you likely will transition to a nursing unit. Care is individualized to you. Even if you planned to go home the same day, it depends on your response to surgery and activity before you can be discharged.

We always have the goal of getting you home as soon as you can safely discharge. Studies have proven we all heal better in a familiar environment, and prolonged hospital stays are not desirable.

HOSPITAL CARE *(continued)*

FIRST DAY AFTER SURGERY

We want you to be mobile, but we want you to be safe . Please note that all activity will be with a team member, and you should never get up alone. We use every opportunity to train, educate, and provide tips and tricks on the best and safest way to mobilize.

IMPORTANT TO NOTE

Bathroom/toileting: your nurse or therapist will help you to the restroom and stay with you during your bathroom time. Please note that this is for your safety and to provide you with important education and tips on safe mobilization!

Ask the nurse to go to the bathroom when he or she is in your room, rounding with you. Do not wait until you have an emergency. Falls happen when people overestimate their ability or when they are in a hurry and forget safety measures.

Meals: Ask to sit up in a chair for your meals.

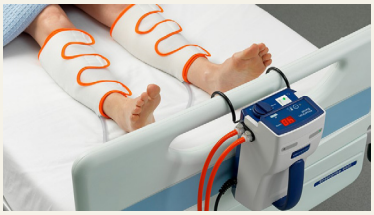
Incentive spirometer: This device is used to help prevent post-operative pneumonia. You will be exercising your lungs by taking deep breaths. You should do this every hour while awake. Your nurse will show you how to use this device.

Swelling/blood clot prevention:

You will wear the thigh high version of the **compression hose** on both legs after surgery. The hose have the toes open to help you apply them easier using a method your therapist can show you.

Cooling units and ice packs will help control swelling as well as elevation while at rest.

HOSPITAL CARE *(continued)*



Pumps will be placed on both calves that will intermittently inflate and deflate to prevent blood pooling in your lower limbs.

IV line: you will have an IV in place during your hospital stay.

Peripheral nerve block: A very thin catheter connected to an infusion pump which provides numbing medicine to your knee.

Knee immobilizers: Worn when walking while a nerve block is in use.

What is a knee immobilizer

If you have a knee done, you will be wearing this brace to walk

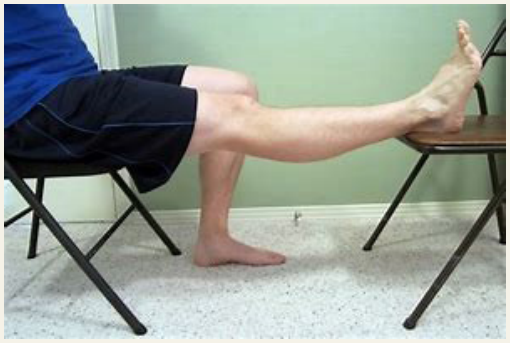
1. **While you have a nerve block running**
2. **While you have numbness in your leg**
3. **When you are home and have a tendency to get up a lot for the bathroom at night**

YOU DO NOT WEAR THIS BRACE WHEN IN BED OR WHEN EXERCISING

Make certain you communicate with your care team about your level of pain and do not wait We always have the goal of getting you home as soon as you can safely discharge. Studies have proven we all heal better in a familiar environment, and prolonged hospital stays are not desirable until the pain has worsened before asking for medication.

Working with therapy and moving your knee actively throughout the day is very important. The physical therapist and occupational therapist will teach you about any special precautions and specific exercises for your knee. Your nurse can also help you with your mobility, and you will need assistance whenever you move from the bed, chair or toilet.

Sit up in your chair as much as possible. You are expected to work on seated knee-bending while you are up, with the goal being 90 degrees of bend.



THINK MOBILITY

DISCHARGE INFORMATION *(continued)*

Someone responsible needs to drive you. **You cannot drive yourself home.** Before you arrive and are admitted to the hospital, please arrange for someone who will drive you home. You will receive written discharge instructions from the nurse and possibly the case manager concerning medications, therapy, activity, precautions, etc. Take this information home with you. Therapy or nursing will help you get to your vehicle and discuss any safety considerations regarding getting in and out of the car.

KNOW the discharge language...

Patients, family caregivers and health care providers all play roles in planning for discharge. It is a significant part of the overall care plan that many patients and caregivers do not understand. Careful attention to the discharge plan and post-hospital care can help ensure your surgery is successful.

Many types of post-hospital care are not covered under insurance. Insurance type and medical recommendations both play a role in the final discharge plan. Medical staff, case managers and physical therapists can recommend the appropriate level of care. Insurance policies direct care based on coverage and contracts with companies. This can impact your choice of facility and the amount of care you are eligible to receive.

After joint surgery, patients are discharged to a variety of locations based on their general state of health, how will they recover from surgery, their assistance at home and insurance policies.

Home Care

Home care is a visit by a medical professional, including a visit by a nurse, physical therapist or occupational therapist. All planned joint replacements receive some type of home care to assist with mobility. You will be asked to choose a home care agency.

Medicare and private insurances often cover this expense, however, there may be restrictions on the company that your insurance allows you to choose from. You will be provided with a list of companies that are available within your network.

Outpatient Rehab

Outpatient rehab is therapy that you will receive in an outpatient clinic. Most insurances cover this service, although you may have a limited choice or service area that you must choose from.

Durable Medical Equipment

Durable medical equipment, or DME, includes walkers, wheelchairs, crutches, bedside commodes and other items to assist with your mobility and care. Most insurance cover the above items. However, they do not cover specialty items such as shower chairs, slide boards or hand rails. If you have a friend that has a sturdy 2 wheeled walker that you can borrow, or if you own one already, please let us know this information. You should mark your own walker with a luggage tag and bring it in to the hospital so you can practice with it.

PAIN CONTROL

Many patients are concerned about pain after surgery and how well it will be controlled. There are many factors that affect how much pain you will experience. For example, the temperature of the room, how tired you are and how stressed you are can all affect post-surgery pain. Everyone experiences pain differently. Your pain will be controlled to a level that is tolerable for you. Orthopaedic staff members are experienced in helping patients in pain to be more comfortable.

How is pain managed?

Your pain will be managed in a variety of ways.

- Pain medicine
- Anti-inflammatory medicine
- Tylenol
- Ice
- Peripheral nerve blocks
- Frequent, short bouts of activity

Narcotics will be ordered PRN, which means "as needed". This means you must ask the nurse for pills. The doctor's order for pain medication will have a time restriction. For example, a patient may only receive pills every three to four hours. It is important for you to plan on taking your pain medications around your physical therapy schedule. Most patients prefer to take the pills about 30 minutes before beginning their physical therapy. You should consider that the combination of all these pain control methods work together to control and manage your pain. You will have some pain. You need to stay active, movement is critical.

PAIN CONTROL *(continued)*

Although pain medications are necessary, they sometimes cause bothersome side effects. Be alert for any of these side effects and tell your nurse right away.

- Dry mouth
- Itching
- Nausea and/or vomiting
- Constipation
- Decreased appetite
- Urinary retention

Pain medication also can cause severe drowsiness or confusion. Although this is rare, we will be watching for these side effects and change your medication if they are seen.

It is important you tell us any time you feel you are not getting enough pain relief.
BE AWARE that we cannot get rid of all your pain; you will have some discomfort.

Let us know how you are feeling.
We will help you find a more comfortable position as best we can.

ANESTHESIA AND YOU

You will see an anesthesiologist and/or an anesthesia nurse practitioner before your surgery. He/she will review your medical history and perform a brief physical exam.

The anesthesiologist will discuss with you the options you have for anesthesia during your surgery. Keep in mind your anesthesiologist may suggest a particular anesthetic technique based on your history, physical exam, type of surgery and other factors.

General Anesthesia – renders you unconscious and unable to feel pain during your procedure. It is produced by a combination of drugs and gasses.

Spinal Anesthesia – a small needle is used to inject an anesthetic solution into your back. This medication should take away all pain sensation and movement from the abdomen down to your toes. You also will be sedated (light sleep) so that you are comfortable and relatively unaware of your surroundings.

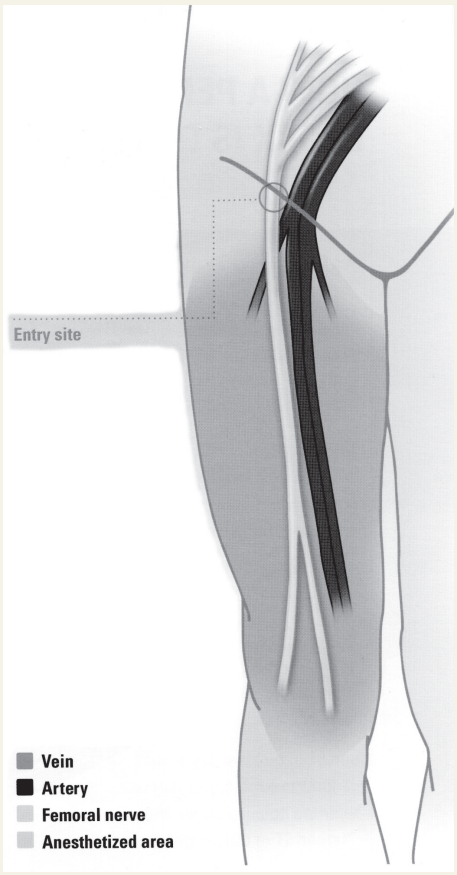
Epidural Anesthesia – also involves using a needle to inject the medication into the lower back. With the epidural, a small catheter is placed through the epidural needle and used to have continuous painkiller medication while in surgery and for a few days after surgery. The anesthesiologist might suggest a combination of the above techniques.

MANAGING SURGICAL PAIN WITH NERVE BLOCKS

Discuss with your physician what he/she feels is the right choice of analgesia for you.

Leg surgery: Femoral nerve blocks

Femoral nerve blocks are used for surgery on the thigh and knee. The block numbs the nerve that transmits signals from much of the front and sides of the thigh and knee. This nerve is relatively close to the skin in the groin area and runs down the leg. A separate block of the sciatic nerve is usually required to fully numb the back of the thigh and lower leg. The sciatic block will be done in much the same way as the femoral nerve block.



Here's how the femoral nerve block is typically given:

- The skin around entry site is cleaned and numbed.
- The anesthesiologist locates the nerve painlessly with nerve stimulator and needle – you may feel a slight tingling sensation or muscle twitch.
- He or she then delivers nerve-blocking anesthesia.
- If continuous infusion is planned for long-term pain control, a small catheter will be inserted and connected to a small portable pump.
- Numbness lasts up to 12 hours with a single dose or until the continuous infusion catheter is removed.

Following surgery, you'll need to take special care of your leg until sensation fully returns.

When will I be given a nerve block, and how is it done?

The block is administered in the anesthesia block room just before surgery.

First, the anesthesiologist numbs the skin with local anesthesia, inserts a stimulating needle, and then uses a small hand-held machine called a **nerve stimulator**. The nerve stimulator sends a low-level electrical signal into your tissue below the skin that helps pinpoint the precise nerve location. The signal will cause a painless muscle twitch, and possibly a tingling sensation. Next, the anesthesiologist gently inserts a very thin catheter (as small as a piece of angel hair pasta) to the nerve location and injects the precise amount of anesthetic needed.

You may or may not go home with a nerve block. You must wear a knee brace (the immobilizer) when up walking or standing when you have a nerve block in use. This is for your safety to prevent falls.

CARE OF YOUR INCISION

During surgery, your incision will be closed with metal clips called staples or a special type of glue. Most of our surgeons use glue, but either are equally proven to keep your knee incision closed and healing nicely. You will have a dressing placed on your knee in the Operating Room under sterile conditions that should remain in place for up to 14 days.

You should not peek under your dressing, or compromise the seal in anyway.

If intact, you can shower (no submergence in tubs) with your dressing on.

If your dressing falls off before the 14 days, you must revert back to sponge bathing.

Another Sterile dressing is not reapplied .

Once you return to your physician for your follow up, you can begin showering as normal with no dressing on.

Do not use creams, lotions, or antibiotics on your knee please.

Do not submerge your leg until your incision is completely healed. No swimming pools, bathtubs, lakes, hot tubs, etc.

After your dressing has been removed (day 10-14), you will need to look at your incision daily for signs of infection or irritation. If you can't see your incision, look in a mirror or have someone else look at it. If you see any signs of infection, call your doctor's office.

Signs of infection are:

- Swelling
- Increased pain or tenderness
- Redness and heat
- Drainage (other than clear, reddish-yellow fluid)
- Fever

When your incision has no open areas or scabs, you can massage with a water-based lotion (approximately four weeks after surgery).

PREVENTION OF BLOOD CLOTS

Patients who have knee surgery are at risk for developing blood clots in their legs, which can be dangerous if they break away and travel to the lungs. There are several things you can do to decrease the chances of blood clots forming. When you are lying in bed after surgery, it is very important that you begin leg exercises. These can be done by pressing the backs of both knees into the bed, tightening your calf and thigh muscles and moving your ankles up and down. Your physical therapist can show you how to do these exercises properly. It also is important that you get up into the chair and start walking as soon as possible (with assistance).

You will wear special elastic stockings that help to circulate the blood in your legs. They will be placed on your legs right after surgery in the recovery room and you will need to wear them the entire time you are in the hospital. Depending on the surgeon, you might need to wear these stockings for several weeks post-surgery or until you post-operative clinical visit. In order for the stockings to help, it is important that they fit properly. They should feel a little tight, yet smooth without wrinkles or creases. They should not be cut or rolled down. (Remember, you can't put these in the dryer, so air-dry them and wash in cold water. We will remove them to wash your legs every day and check to make sure your skin is healthy). Your physician would like you to wear compression stockings on one or both legs for 4 weeks after surgery. You only wear them during the day. They are removed at bedtime.

If you choose to buy your own compression stockings, make sure that the have 20-30mmHg as their amount of pressure.

In the hospital, you will also be wearing a sequential compression device that helps circulate the blood in your legs. Sequential compressions are cloth sleeves attached to a pump that hooks onto the end of your bed. Air is then pumped into the sleeve through the hoses and then released. You will not go home with these, and walking and activity is the best way to maintain good circulation.

You might also receive medications to help prevent blood clots, especially if you have had blood clots in the past. If your doctor prescribes one of these drugs, you will receive proper instructions at that time. Most patients receive baby aspirin as the physician choice for blood clot prevention.

Blood clots can be a very serious complication after having knee surgery. It is important that you stick to your prescribed medication in order to decrease your chances of blood clots. It is important to get up and move often. You should not sit longer than one hour at a time.

PREVENTION OF BLOOD CLOTS *(continued)*

Although blood clots are rare, it is important to know the signs and symptoms to look for:

- Pain in your lower legs or swelling not relieved by lying down and putting your legs up
- Heat and redness in the calf muscle area

You should notify your doctor immediately if you have any of these symptoms. If you become short of breath or develop chest pain, you need to call 911. It is important that you see a doctor as soon as possible.

DIET

Good nutrition – including eating a balanced diet high in protein and calories – is essential for proper wound healing. **Do not diet** while you are healing from your surgery. If you are diabetic, you will be put on a diabetic diet to keep your blood sugar under control. People with diabetes take longer to heal and the more your blood sugar is kept under good control, the faster you will heal. If you have food allergies or are a vegetarian, please let the doctor know at pre-op. If you have questions about your diet, please ask your nurse or doctor. At your request, a dietician can speak with you. Depending on your dietary restrictions, your family may bring food into the hospital for you to eat.

PREVENTION OF CONSTIPATION

Pain medication and anesthesia can be constipating, so your doctor may prescribe stool softeners or laxatives after surgery. Passing gas is normal and lets us know that your bowel function is starting to come back, so don't be embarrassed by this. If you haven't had a bowel movement by the second day post-op, please ask your nurse to give you a laxative. If you normally have problems with constipation, let the doctors know what works best at home so we can try and do the same for you in the hospital.

PREVENTION OF PNEUMONIA

Coughing and deep breathing exercises are very important to help prevent pneumonia. Your nurses will ask you take long, deep breaths several times each hour and to cough up any mucous. You will be taught to use a device called an incentive spirometer that will help you with your deep breathing exercises. A nurse will show you how to use this before surgery or right after surgery. To help prevent lung problems, remember to stay active with the assistance of a nurse.

If you smoke, quitting before surgery will help your recovery and decrease your chances of getting pneumonia. Smoking is not allowed after surgery while you are in the hospital.

A PATIENT'S PERSPECTIVE

Surgery will hurt, but it doesn't compare to the 24-hour pain you have been dealing with that led you to have surgery in the first place. Our health care team is dedicated to helping you recover and maximize your new joint.

Your experience with us important, so please let us help you make your stay a satisfying one.

You will be up and moving the same day of surgery.
You will be using an assistive device, such as a walker initially, so expect that when you are getting up.

You need to increase your activity and exercise and be out of bed more than in it while staying with us. Getting dressed is allowed, bring loose-fitting clothes that can easily be applied over a bulky knee dressing or immobilizer.

Most patients stay one over night with us, but you may be a candidate to go home the same day of surgery. This is up to your surgeon and your fitness level, pain control, and ability to move after surgery. You will have continued therapy outside of the hospital if your insurance offers this benefit.

You will need to continue your exercises at home, walking frequently and staying active. You will have methods to control pain including medication, ice, activity and elevation.

YOU ARE YOUR BEST COACH. STAY ACTIVE. BE FIT.

HOW TO PREPARE FOR SURGERY

What should I expect prior to surgery?

Please bring all your medications that you take with you to the pre-op clinic. If you don't bring them, make sure you have a list of all medications that you take both over-the-counter (such as aspirin, Motrin®, vitamins, and herbal remedies) and prescribed medications with dosages and how often you take them. The correct medication and dosages are important so we can maintain your health throughout your hospital experience.

You will be talking to a nurse case manager either pre-op or post-op who will assist you in obtaining any equipment or services needed after discharge from the hospital. Your discharge facilitator and nurse navigator will answer any questions regarding equipment.

QUICK REFERENCE

Welcome to UF Health. You are scheduled to have an elective knee replacement in the near future, and we want to give you some information on what to expect day-by-day in regards to your post-operative care.

Nursing and Rehab staff follow a specific care plan established by your physician for elective joint patients. This guideline standardizes how we offer care to our elective joint patients and allows all stakeholders to know what to expect each day in regards to your care progression.

DAY OF SURGERY

Mobility Goals:

- Edge-of-bed sitting or out of bed as able
- Walking as able with assistive device - the goal is 10 feet with a walker same day of surgery
- Use incentive spirometer every hour at least 10 times per hour.
- Make sure you get out of bed for your meals with help
- Fall prevention is important

Begin circulation exercises:

- Call for help for all out of bed activity... CALL don't FALL
- Do not wait until the last minute to ask to go to the bathroom. Have a regular schedule and ask when nurse is in the room with you
- Have rubber soled shoes or non slip socks on for all mobilization out of bed
- All bathroom visits require a staff person in the bathroom with you
- Ankle pumps
- Quad sets
- Gluteal sets

You will be up and moving if your physician orders it as early as today. Nursing or therapy can help with this.

You will be instructed on any specific precautions you have following this surgery.

You can begin circulation exercises as soon as you are alert to do so.

You will not have your knee propped on a pillow; it will lay flat on the bed. This keeps your knee in the best alignment.

You should see signs in your room that give information on your mobility status, and "Call, don't fall," which means, ask for help and don't get up alone.

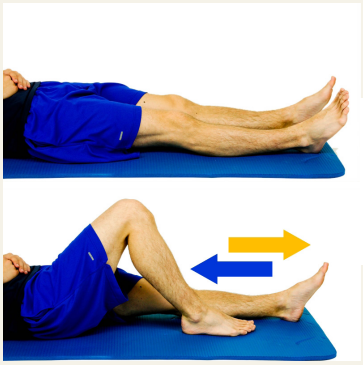
You likely have a trapeze bar on your bed. You can use this to off-load pressure on your bottom, but don't rely on it for mobility. You won't have a bar at home so we practice out of bed without the trapeze.

You may have ice or a cooling unit for your knee take this home with you. Make sure you know how to use it . You are not given another one if it stops working at home, just use regular ice bags

DAY OF SURGERY *(continued)*

Safety considerations

Exercises to bend and straighten your knee: perform 2-3 day, and continue when you go home!



THINK MOBILITY

You will have a knee immobilizer on your knee if you have a nerve block for all out of bed activity. This is to help stabilize your numb limb while the block is being used.

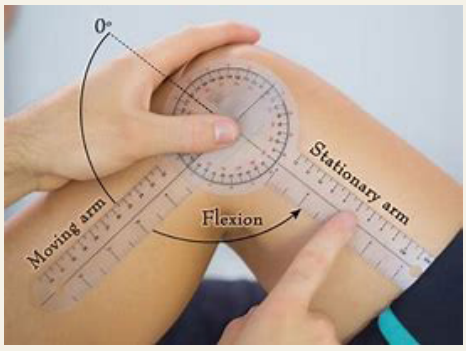
Once the block is gone and the numbness has completely worn off, the immobilizer is not used.

You will have a device on your calves that will that will help maintain adequate circulation to the legs.

FIRST DAY AFTER SURGERY

Mobility Goals:

- Ambulate with assistive device
- Sitting up in chair for meals
- Ambulate to bathroom as able for toileting with assist
- Therapy will practice curb and step training with you before discharge
- Bend your knee in sitting
- Active motion or active assisted motion ideal
- Therapy will practice car transfer training with you and your care coach prior to discharge



You will be out of bed with therapy and multiple times today.

You will be sitting up in the chair for all your meals.

You are expected to walk 25 plus feet with your walker or crutches.

You will have help for out-of-bed activity.

You will start working on exercises designed to strengthen your new knee.

Do these both in and outside of your therapy sessions.

You should be bending your knee at least 60 degrees today, and working hard to get your knee as straight as possible when you extend it.

Exercises should be done at least twice daily, one time with your therapist and another with your family member or on your own.

DISCHARGE TODAY IS LIKELY.

Motion of the knee should approach 80 degrees of flexion.

Extension should be close to full.

DISCHARGE INFORMATION

Therapy will practice car transfer training with you and your care coach prior to discharge.

Take home with you:

- ~~ICE~~ machine
- Knee Brace
- Stockings (thigh high for both legs)
- Gait belt
- Any equipment given to you by OT
- Discharge instructions

You will likely have some form of follow-up therapy.

You should perform your home exercise program at least twice a day on your own or with family assistance.

You should be trying to bend and straighten your knee as much as possible.

You should not be wearing the immobilizer at home unless instructed to do so or if you still have a nerve block on.

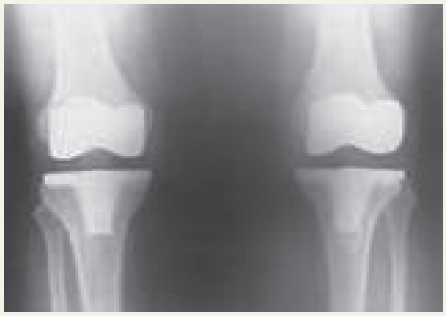
You must wear the knee brace when walking if you have a nerve block.

You should be walking often.

Monitor for clinical signs of infection: fever, swelling, increased pain, redness, etc.

BILATERAL KNEE SURGERY

Simultaneous bilateral total knee replacement



If you have both knees equally painful and stiff, it is possible to have both knees replaced with total knee prostheses during one operative procedure, under one anesthesia. The operations are followed by a single rehabilitation period within one hospital stay. Such simultaneous surgeries are called simultaneous bilateral total knee replacement.

What can I expect?

Be ready to work hard. We usually place knee immobilizers on both legs for support and stability. If you have a nerve block, you will have immobilizers until the block is discontinued. You will need help getting up with two knee braces on, as functionally we need to have our knees bent to shift our weight forward for leverage. You can still walk or get up to a chair with knee braces on. Rehab will likely ask you to lead with your weaker (or more painful) limb to initiate mobility. The immobilizers are usually removed once the block is gone.

Typical knee immobilizer

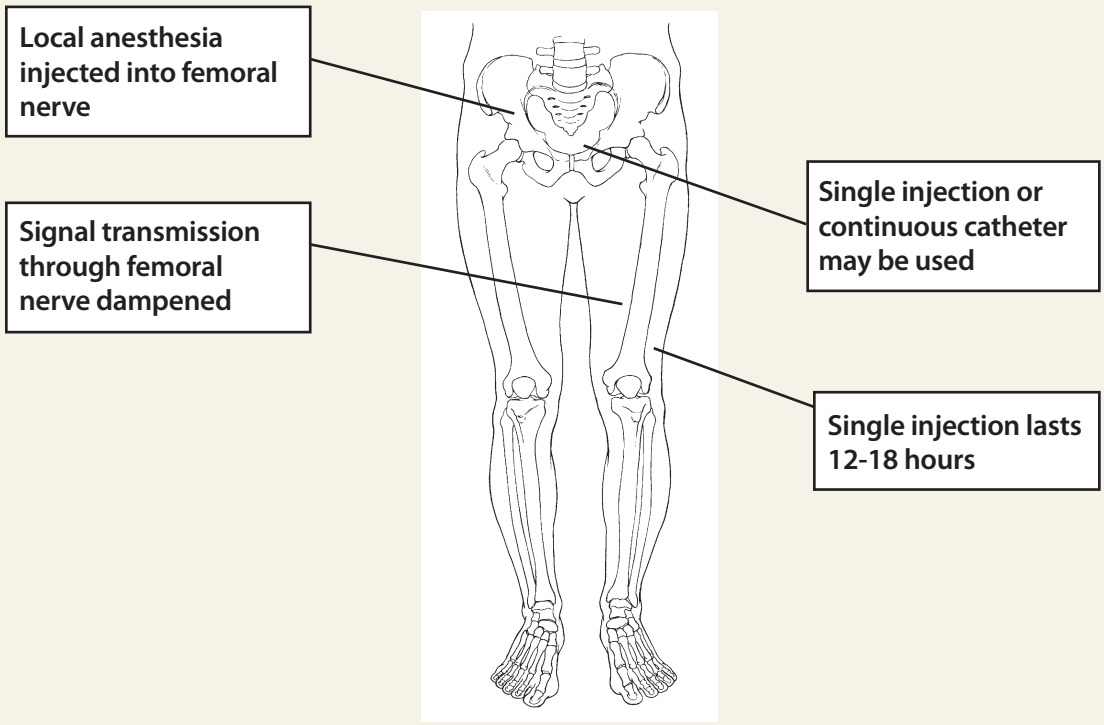
Your anesthesiologist will place femoral nerve catheters into both legs. A pain-relieving drug will be pumped into each catheter by a special pump that regulates the amount of drug you receive. These catheters will stay in place until several days after your surgery and the dosing will be determined by the anesthesia pain management team. Your pain will not be totally relieved by the femoral nerve blocks but they will they will make your pain much more controllable with oral or intravenous (IV) medications. Since pain medications are given "as needed," it is up to the patient to request pain medications when needed and in anticipation of therapy.

Nerve Blocks

A side effect of the femoral nerve pain block is the temporary loss of quadriceps muscle control. The quadriceps muscle is the muscle that allows you to extend your knees and stand. After surgery you will be fitted with knee braces to enable you to stand with your walker for the first few post-op days. It is very important for your safety that you not try to walk or stand without these braces or without the help of therapy or nursing staff until the femoral nerve block is removed.

BILATERAL KNEE SURGERY *(continued)*

Femoral Nerve Block



Physical therapy will be ordered twice a day after surgery in order to begin your return to normal movement. Your nurses are trained to assist you out of bed, and your family can help you with the exercises included in this packet.

Rehab after surgery is hard work; patients are expected to participate in exercises and training designed to speed recovery and limit complications.

If your knee is having difficulty extending all the way, you may have a pillow placed under your ankle **(never under the knee)** to allow gravity to passively stretch the area. We do not allow pillows under the knee for "comfort" as this can cause your knee to get stiff with a slight bend in it.

Acute goals for bilateral total knee replacement are:

1. Early mobilization with out of bed activities designed to overcome the effects of anesthesia and improve circulation. It is ***expected*** that every patient will spend some time out of bed in a chair or begin walking on the same day of surgery.
2. Training in the use of an assistive device for transfers, walking and steps.
3. Training the patient and caregiver in range of motion and strengthening exercises that will speed your recovery.

GENERAL THERAPY TIPS

BECOME A REHAB STAR.

Remember to get up and MOVE.

Your post-surgical pain is temporary. You have been dealing with joint pain for a long time, so you know that you can get through the post-operative period.

Your new knee is meant to be moved! You can do it!

- Ask for help to get up as often as you can.
- Exercise outside of therapy to maximize outcomes.
- Do not place a pillow under your knee. Always promote a straight leg by putting the support under the calf.
- Strive to achieve your daily goals.
- Be safe, get help, and prevent falls.
- Get your family involved.

TOTAL KNEE ARTHROPLASTY
HOME EXERCISE PROGRAM

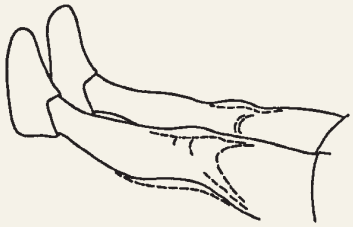
Do the following exercises 2-3 times a day. Do 10 or more repetitions of each.

1. ANKLE PUMPS

Make up and down motions with your feet, or point and flex your foot.

2. QUAD SETS

Keep your legs out straight and toes pointed up. Tighten the muscles in the front of your thigh and press your knee down. Hold for a count of 5, then relax.

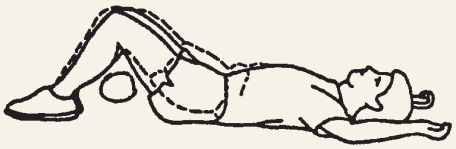


3. GLUTE SETS

Tighten your buttocks by squeezing together, hold for a count of 5, then relax.

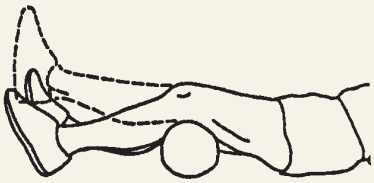
4. BRIDGING

Place a roll under your knees. Press down on the roll with your thigh and lift your buttocks. Lower slowly.



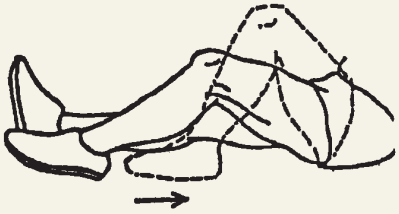
5. TERMINAL KNEE EXTENSION

With the roll under your knees, lift your foot until your leg is straight; hold and lower slowly.



6. HEEL SLIDES

Bend hip and knees, bringing heel towards buttocks, then push out until leg is straight.



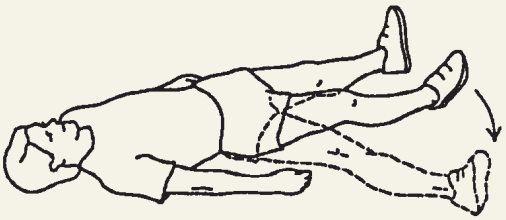
TOTAL KNEE ARTHROPLASTY
HOME EXERCISE PROGRAM *(continued)*

Do the following exercises two to three times a day.
Do 10 or more repetitions of each.

Exercises should be done in the hospital on your own 2-3 times a day , starting with 5 each and progressing by 2 reps or as tolerated

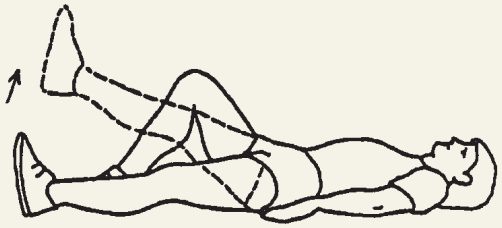
7. ABDUCTION

With leg out straight, slide the leg out away from your body, then pull leg back in.



8. STRAIGHT LEG RAISES

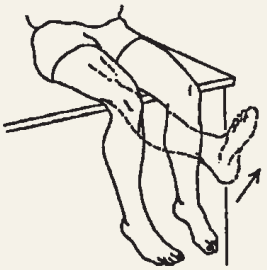
Bend the opposite knee. Do a quad set, then lift leg 12" without letting your knee bend, then lower slowly.



9. Sit in a chair with your foot propped in another chair and knee unsupported for 15 minutes to maintain knee extension.

10. KNEE EXTENSIONS (Very important! Work hard at seated flexion)

While sitting in a chair, bend involved leg back as far as you can; use unaffected leg to assist for more knee flexion, then kick out straight. For more flexion, scoot bottom edge of chair with foot planted.



11. After exercises, ice knee for up to 20 minutes , making sure ice packs do not sit directly on the skin.

12. Ambulate with your 2 wheeled walker weight bearing as tolerated until your physician and therapist feel you can stop using this device.

ON THE MOVE

How many times have you gotten up today?

FACT: **Staying in bed does not get you home more quickly, and it DOES NOT make you stronger.**

FACT: **Prolonged bed rest can cause:**

- Increased risk of bed sores, blood clots and pulmonary embolism
- Pneumonia
- Exercise intolerance, weakness and changes in blood pressure
- Decreased bone density and muscle mass
- Constipation
- Depression or a sense of helplessness

SO, WHAT CAN I DO TO HELP MYSELF OR MY LOVED ONE?

- Get out of bed for meals.
- Walk with or without assistance as directed by your physician/nurse/therapist.
- Have slippers with good grips and backs on them for out of bed mobility and activities.
- Make sure you have your glasses and hearing aids.
- Avoid daytime sleeping so a normal sleep cycle is maintained.
- Keep blinds open during the day.
- Encourage use of incentive spirometer for deep breathing. Ask your nurse for information.
- Do any exercises assigned to you outside of your therapy sessions.

FOUR THINGS YOU CAN DO TO PREVENT FALLS

Begin a regular exercise program

Exercise is one of the most important ways to lower your chances of falling. It makes you stronger and helps you feel better. Exercises that improve balance and coordination (like Tai Chi) are the most helpful.

Lack of exercise leads to weakness and increases your chances of falling.

Have your health care provider review your medications

Have your doctor or pharmacist review all of the medications you take, even over-the-counter medications. As you get older, the way medicines work in your body can change. Some medications, or combinations of medications, can make you sleepy or dizzy and can cause you to fall.

Have your vision checked

Have your eyes checked by an eye doctor at least once a year. You may be wearing the wrong glasses and need your prescription updated or have a condition such as glaucoma or cataracts that limits your vision. Poor vision can increase your chances of falling.

Make your home safer

About half of all falls happen at home. To make your home safer:

- Remove things you trip over (like papers, books, clothes and shoes) from stairs and places where you walk.
- Remove small throw rugs or use double-sided tape to keep the rugs from slipping.
- Keep items you use often in cabinets you can reach easily without using a step stool.
- Have grab bars put in next to your toilet and in the tub or shower.
- Use non-slip mats in the bathtub and on shower floors.
- Improve the lighting in your home. As you get older, you need brighter lights to see well. Hang light-weight curtains or shades to reduce glare.
- Have handrails and lights put in on all staircases.
- Wear shoes both inside and outside the house. Avoid going barefoot or wearing slippers.

Ask your nurse or therapist to help you up as much as possible.

PUBLIC PROGRESS REPORT

Record your progress and track your accomplishments

You can track your progress each day in the hospital with this.

	SAT UP IN CHAIR	GOT UP TO THE COMMODE	WALKED 30 FEET WITH ASSISTANCE	WALKED GREATER THAN 30 FEET	DID MY EXERCISES
	☐ Breakfast ☐ Lunch ☐ Dinner Extras? (time) _____	☐ Breakfast ☐ Lunch ☐ Dinner Extras? (time) _____	☐ Breakfast ☐ Lunch ☐ Dinner Extras? (time) _____	☐ Breakfast ☐ Lunch ☐ Dinner Extras? (time) _____	☐ Breakfast ☐ Lunch ☐ Dinner Extras? (time) _____
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