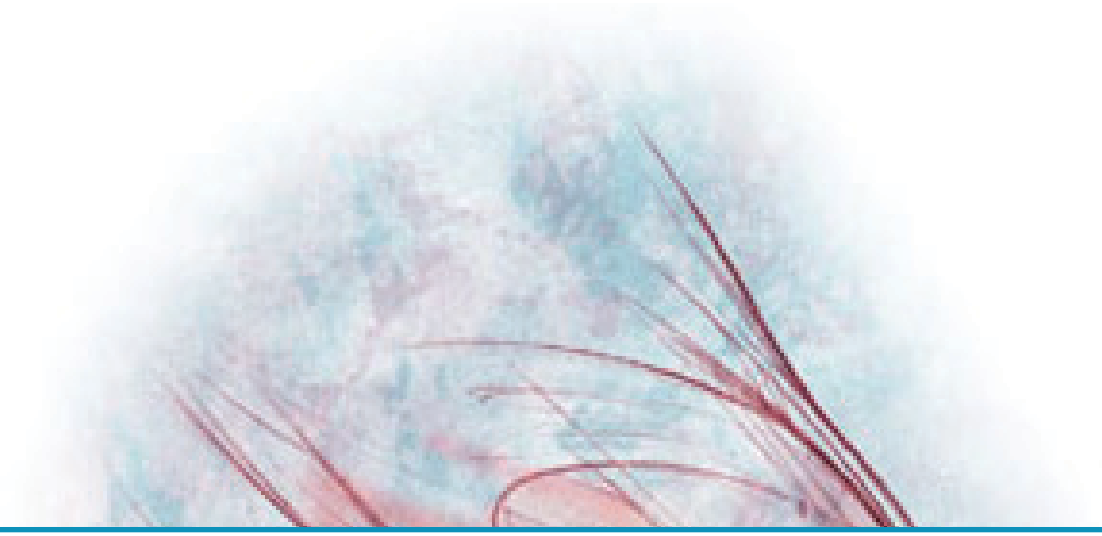
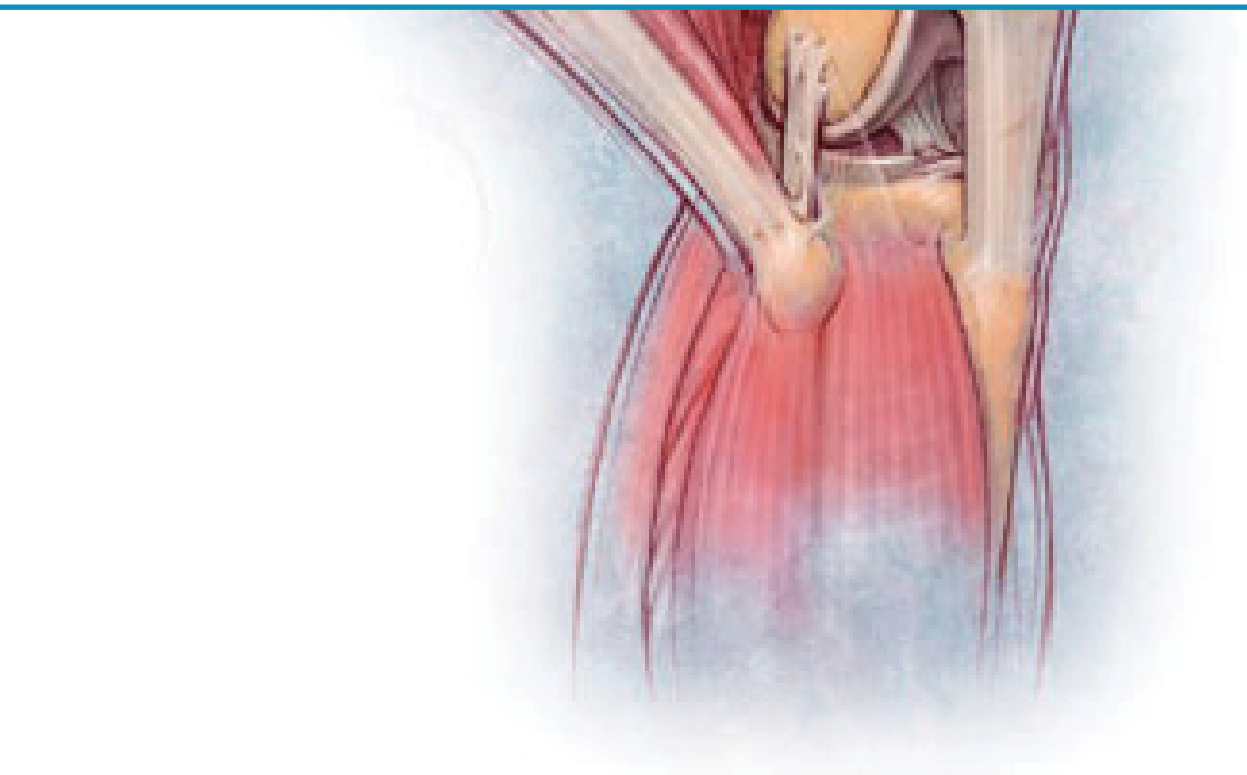


What you need to know before, during, and after total knee replacement surgery.



St. Luke's Cornwall
Center for Joint Replacement
Clinical Affiliate of The Mount Sinai Hospital

Welcome

Thank you for choosing the St. Luke's Cornwall Hospital Center for Joint Replacement. Your physician and our care-giving team are dedicated to your comfort, well-being, and smooth recovery.

Philosophy

The St. Luke's Cornwall Hospital Center for Joint Replacement is committed to providing quality care that is compassionate, innovative, and responsive. We strive to be the region's center of choice for total joint replacement.

Exceptional patient satisfaction will be achieved by addressing patients' needs promptly, appropriately, and with empathy. Each and every patient will be treated with respect and dignity. The Center's staff will be friendly and cohesive, and will aspire to make the patient experience as positive and pleasant as possible.

Recognizing the importance of the patient's support team, the staff will include these "coaches" in all aspects of care. We will provide comprehensive education and guidance to facilitate recovery following discharge.

The Center for Joint Replacement team shares and upholds these principles. We welcome feedback as an opportunity to improve our care and enhance the patient experience.

Overview of The Center for Joint Replacement

The St. Luke's Cornwall Center for Joint Replacement is unique. It is a dedicated center within the hospital. Patients have surgery and return home after a two- to three-night stay in the hospital.

Our program is designed to make your entire total joint replacement experience a positive one, and to facilitate your recovery. It features:

- Nurses and therapists who specialize in the care of joint replacement patients
- Private rooms
- Emphasis on group activities as well as individual care
- Family and friends educated to participate as "coaches" in the recovery process
- Group lunches with your coach and staff on Wednesday and Thursday
- This comprehensive patient guide for you to follow from three weeks pre-op until three months post-op and beyond
- Coordinated after-care program

General Information

Your Care Team

Nursing

Thank you for choosing SLCH for your orthopedic care. Our Nursing staff is committed to ensuring you and your family receive excellent care in a warm, safe environment. We are here to answer your questions, discuss your concerns, and make your stay as comfortable as possible. Please help us by letting us know if there is anything we can do to make your stay even better. We appreciate the trust you have placed in us, and our entire team is committed to taking excellent care of you!

Nursing will be with you each step of the way:

- Pre-operative
- During Operation
- Post-Operative - Recovery
- Post-Operative - Unit

During your hospitalization at SLCH, you will be cared for in a patient and family-focused environment.

Before your surgery, you will complete a comprehensive health assessment by a Registered Nurse (RN), and pre-operative teaching will begin at this time. Please come prepared with any questions you may have.

You will be transported to the operating room via stretcher, where you will be greeted by another RN who will care for you throughout your surgery. After your surgery, you will awaken in Recovery where you will be monitored closely until you are stable and can be transferred to the Nursing Unit. Back in your room, you will be cared for by an experienced, licensed, orthopedic nurse.

After surgery, your care will be monitored by a multi-disciplinary team that will focus on your individual outcome, working to get you “back on your feet.”

Case Management

How Our Case Manager Can Help You Before and After Your Stay

St. Luke’s Cornwall Hospital Case Managers are an integral part of the health care team. Case Managers at SLCH are experienced, clinical RNs. They are available to assist you with discharge planning and coordination of medical needs. The Case Manager will assist you with any referrals for physical therapy, rehabilitation or home care programs after leaving the hospital, any questions on insurance coverage, and equipment needs at discharge.

Please feel free to contact the St. Luke’s Cornwall Hospital Case Management Department any time, at 784-3812.

General Information

The Rehabilitation Department

The Rehabilitation Department at SLCH is a team of highly trained professionals in the field of Physical and Occupational Therapy, Speech Pathology, and Cardiac Rehabilitation.

For the patient having a total knee replacement, therapy will be an integral part of your recovery.

Physical therapists are trained and licensed professionals who work as members of your health care team to restore your function through improved mobility, offer assistance with pain relief, and help you increase your motion and strength.

You will speak with therapists at the pre-operative class and will be evaluated and assisted by them regularly during your hospital stay.

For outpatient therapy there are four convenient locations. An appointment can be arranged for you before you are discharged from the hospital.

Our Centers for Physical Therapy

Center for Physical Therapy, Cornwall
19 Laurel Avenue
Cornwall, NY 12518
458-4267

Center for Physical Therapy, New Paltz
279 Main Street Suite 203
New Paltz, NY 12561
256-0253

Center fo Sports and Physical Therapy
Located at All Sport Fishkill
17 Old Main Street
896-MYPT (6978)

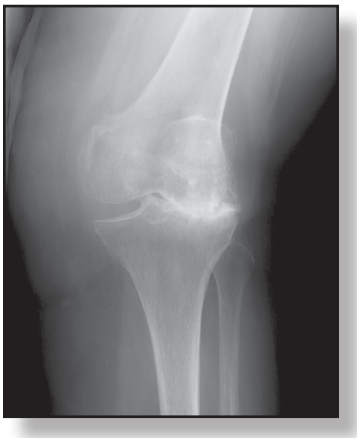
Center for Physical Therapy, New Windsor
575 Hudson Valley Avenue
New Windsor, NY 12553
784-3777

Frequently Asked Questions About Total Knee Surgery

We are glad you have chosen the SLCH Center for Joint Replacement to care for your knee. Patients have asked many questions about total knee replacement. Below is a list of the most frequently asked questions along with their answers. If there are any other questions that you need answered, please ask your surgeon. We want you to be completely informed about this procedure.

What is osteoarthritis and why does my knee hurt?

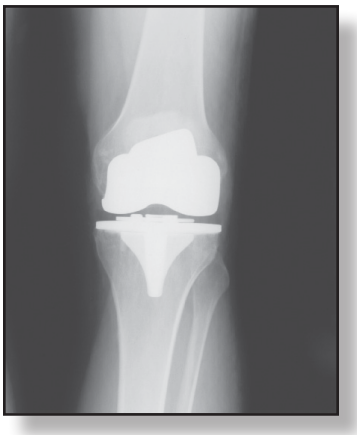
Joint cartilage is a tough, smooth tissue that covers the ends of bones where joints are located. It helps cushion the bones during movement, and because it is smooth and slippery, it allows for motion with minimal friction. Osteoarthritis, the most common form of arthritis, is a wear and tear condition that destroys joint cartilage. Sometimes as the result of trauma, repetitive movement, or for no apparent reason, the cartilage wears down, exposing bone ends. This can occur quickly over months or may take years to occur. Cartilage destruction can result in painful bone-on-bone contact, along with swelling and loss of motion. Osteoarthritis usually occurs later in life and may affect only one joint or many joints.



Before: Bone-on-bone contact.

What is a total knee replacement?

A total knee replacement is really a bone and cartilage replacement with an artificial surface. The knee itself is not replaced, as is commonly thought, but rather an implant is inserted on the bone ends. This is done with a metal alloy on the femur and plastic spacer on the tibia and patella (kneecap). This creates a new, smooth cushion and a functioning joint that can reduce or eliminate pain.



After: A new surface creates a smoothly functioning joint.

What are the results of total knee replacement?

Results will vary depending on the quality of the surrounding tissue, the severity of the arthritis at the time of surgery, the patient's activity level, and the patient's adherence to the doctor's orders.

When should I have this type of surgery?

Your orthopedic surgeon will decide if you are a candidate for the surgery. This will be based on your history, exam, X-rays, and response to conservative treatment. The decision will then be yours.

Am I too old for this surgery?

Age generally is not a factor if you are in reasonable health and have the desire to continue living a productive, active life. You may be asked to see your primary physician for his/her opinion about your general health and readiness for surgery.

How long will my new knee last and can a second replacement be done?
All implants have a limited life expectancy depending on an individual's age, weight, activity level, and medical condition(s). A total joint implant's longevity will vary in every patient. It is important to remember that an implant is a medical device subject to wear that may lead to mechanical failure. While it is important to follow all of your surgeon's recommendations after surgery, there is no guarantee that your particular implant will last for any specific length of time.

Why might I require a revision?
Just as your original joint wears out, a joint replacement will wear over time as well. The most common reason for revision is loosening of the artificial surface from the bone. Wearing of the plastic spacer may also result in the need for a new spacer. Your surgeon will explain the possible complications associated with total knee replacement.

What are the major risks?
Most surgeries go well without any complications. Infection and blood clots are two serious complications. To avoid these complications, your surgeon will use antibiotics and blood thinners. Surgeons also take special precautions in the operating room to reduce the risk of infections.

Should I exercise before the surgery?
Yes, consult your surgeon about the exercises appropriate for you.

Will I need blood?
You may need blood after the surgery. Your surgeon will determine if you need a blood transfusion and will discuss that decision with you.

How long will I be incapacitated?
You will probably stay in bed the day of your surgery. However, the next morning most patients will get up, sit in a chair or recliner, and should be walking with a walker later that day.

How long will I be in the hospital?
Most knee patients will be hospitalized for two to three days. There are several goals that must be achieved before discharge.

What if I live alone?
Two options are usually available to you. You may return home and receive help from a relative or friend or you can have a home health nurse and physical therapist assist you at home for a short period of time.

Will I need a second opinion prior to the surgery?
The surgeon's office secretary will contact your insurance company to pre-authorize your surgery. If a second opinion is required, you will be notified.

How do I make arrangements for surgery?
After your surgeon has scheduled your surgery, you will be scheduled to attend pre-admission testing and a pre-operative education class. For your convenience, both appointments are offered on the same morning. Detailed information regarding your experience will be provided during the class, which usually lasts about an hour.

How long does the surgery take?
The hospital reserves approximately two to two-and-one-half hours for surgery. Some of this time is taken by the operating room staff to prepare for the surgery.

Do I need to be put to sleep for this surgery?
You may have a general anesthetic, which most people call "being put to sleep." Some patients prefer to have spinal anesthesia, which numbs the legs only and does not require you to be asleep. The choice is between you, your surgeon, and the anesthesiologist.

Will the surgery be painful?
You will have discomfort following the surgery, but we will try to keep you as comfortable as possible with the appropriate medication.

Who will be performing the surgery?
Your orthopedic surgeon will perform the surgery. An assistant often helps during the surgery.

How long, and where, will my scar be?
Surgical scars will vary in length, but most surgeons will make it as short as possible. It will be straight down the center of your knee, unless you have previous scars, in which case your surgeon may use an existing scar. There may be some lasting numbness around the scar.

Will I need a walker or a cane?
Yes, for about six weeks we do recommend that you use a walker or a cane. The Case Manager can arrange for them if necessary.

Where will I go after discharge from the hospital?
Patients need to prepare to go home directly after discharge. The Case Manager will help you with the necessary arrangements.

Will I need help at home?
Yes, for the first several days or weeks, depending on your progress, you will need someone to assist you with meal preparation, etc. If you go directly home from the hospital, the Case Manager will arrange for a home health care nurse to come to your house as needed. Family or friends need to be available to help.

Preparing before your surgery can minimize the amount of help needed. Having the laundry done, house cleaned, yard work completed, clean linens put on the bed, and single-portion frozen meals will help reduce the need for extra help.

Will I need physical therapy when I go home?
Yes, you will have either outpatient or in-home physical therapy. Patients are encouraged to utilize outpatient physical therapy. The Case Manager will help you arrange for an outpatient physical therapy appointment. If you need home physical therapy, we will arrange for a physical therapist to provide therapy at your home. Following this, you may go to an outpatient facility three times a week to assist in your rehabilitation. The length of time required for this type of therapy varies with each patient.

How long until I can drive and get back to normal?
The ability to drive depends on whether surgery was on your right leg or your left leg and the type of car you have. If the surgery was on your left leg and you have an automatic transmission, you could be driving at two weeks. If the surgery was on your right leg, your driving could be restricted as long as six weeks. Getting "back to normal" will depend somewhat on your progress. Consult with your surgeon or therapist for their advice on your activity.

When will I be able to get back to work?
We recommend that most people take at least one month off from work, unless their jobs are quite sedentary and they can return to work with a cane. An occupational therapist can make recommendations for joint protection and energy conservation on the job.

When can I have sexual intercourse?
The time to resume sexual intercourse should be discussed with your orthopedic physician.

How often will I need to be seen by my doctor following the surgery?
You will be seen for your first post-operative office visit two to three weeks after discharge. The frequency of follow-up visits will depend on your progress. Many patients are seen at six weeks, 12 weeks, and then every couple of years.

Are there any permanent restrictions following this surgery?
Yes, high-impact activities, such as running, singles tennis, and basketball are not recommended. Injury-prone sports such as downhill skiing are also restricted.

What physical/recreational activities may I participate in after my recovery?
You are encouraged to participate in low-impact activities such as walking, dancing, golf, hiking, swimming, bowling, and gardening.

Will I notice anything different about my knee?
Yes, you may have a small area of numbness to the outside of the scar, which may last a year or more. Kneeling may be uncomfortable for a year or more. Some patients notice some clicking when they move their knee. This is usually the result of the artificial surfaces.

Pre-Operative Checklist

Before Your Surgery: Timeline

Three to four weeks prior to surgery:

- Obtain necessary Medical evaluation
- Begin your pre-operative exercise program
- Confirm and keep internist appointment about two to three weeks prior to surgery for Medical evaluation
- Pre-admission testing will have been scheduled by office
- Attend SLCH pre-operative class

Ten days prior to surgery:

- Check with your primary care physician on stopping medications that increase bleeding time
- Prepare your home for your return after your hospital stay (see page 19)

24 Hours Prior to Surgery

___ Time to arrive on day of surgery. Call 568-2865 after 5:00 p.m.

___ Do not eat or drink after midnight the day prior to surgery, not even water, unless otherwise instructed to do so. No chewing gum.

___ Do not take medications for diabetes.

___ Pack your travel bag with the following items:

- Eyeglasses (easier to take care of/less likely to lose than contacts)
- Toothbrush/toothpaste
- Dentures
- Deodorant
- Razor
- Loose-fitting clothing
- Flat shoes/tennis shoes
- Something to occupy your time

Day of Surgery

___ Leave plenty of time to arrive on time

___ Bring your packed travel bag

___ Bring this handbook

Leave the following items at home:

- Valuables
- Jewelry

Pre-Operative Checklist

Before Your Surgery: Home Preparation

To maximize your recovery and safety after your surgery, it is best to be prepared for your limited ability to get around your home. Below are suggestions you and your caregiver can implement to make your home easier to manage.

- Have a firm chair with arms available; the seat should be tall enough for you to comfortably come to a stand. If no chair meets these specifications, consider a cushion on a dining room chair. Firm cushions can be purchased from medical supply companies.
- Be sure walkways throughout the home are clutter free; this includes removing or tacking down throw rugs.
- Make sure lighting is easy to access. Suggestions include purchasing a "clapper" device on a lamp, or using timers on certain lights.
- Store items within easy reach and leave out those things you use often.
- Break down larger containers of food or beverages into smaller portions that can be easily carried (i.e., buy a six-pack of soda or purchase reusable containers with lids).
- Prepare your meals ahead of surgery and freeze in individual serving containers. Keep phone numbers/menus for food delivery handy.
- If you have a low toilet seat, consider purchasing a raised toilet seat from a medical supply store.
- Make sure your shower has either a skid-free mat or stickers. If you are concerned regarding your balance or ability to stand, you can purchase a shower chair (sold at Home Depot, Lowe's, major drug stores, and medical supply stores).
- Make sure you have a cordless phone that you can take with you around the house.
- Make arrangements for a caregiver the first week you are home. Ask a friend or neighbor to help if you need something quickly or have an emergency.
- Do all your laundry and clean the house so these tasks can be put off as long as possible.
- Wear loose-fitting clothing that is easy to take on and off.

Day of Surgery — What to Expect

On the Ambulatory Surgery Unit on the first floor patients are prepared for surgery. This includes starting an IV. Your operating room nurse, anesthesiologist and surgeon will interview you. You will be transported to the operating room. Following surgery, you will be taken to a recovery area where you will remain for one to two hours. During this time, pain control is typically established, your vital signs will be monitored, and an X-ray may be taken of your new joint. You will then be taken to the Center for Joint Replacement, where a total joint nurse will care for you. Only one or two very close family members or friends should visit you on this day. You most likely will remain in bed the first day. **It is very important that you begin ankle pumps on this first day**. This will help prevent blood clots from forming in your legs. You should also begin using your Incentive Spirometer and doing the deep breathing exercises that you learned in class. Each day you will receive a daily newsletter outlining the day's activities.

After Surgery — Day One

On day one after surgery you can expect to be bathed and helped out of bed by 7:00 a.m. and seated in a recliner in your room. Your surgeon or associate will visit you during the day. The physical therapist will assess your progress and get you walking with a walker. Group therapy typically begins in the afternoon. Occupational therapy may begin, if needed. Your coach is encouraged to be present as much as possible. Visitors are welcome, preferably in the late afternoons or evenings.

After Surgery — Day Two

On day two after surgery you may be helped out of bed early and may dress in the loose clothing you brought to the hospital. Shorts and tops usually are best; long pants are restrictive. Group therapy will start at approximately 9:30 a.m. It would be helpful if your coach participates in group therapy. Wednesday and Thursday you will eat lunch with the other patients, your coach, and the nursing staff. There is no charge for the coach. At about 1:00 p.m. you will have a second group therapy session. You may begin walking stairs on this day. Evenings are free for friends to visit.

Discharge Day — Day Three

Day three is similar to day two in the morning and you will walk on stairs. You most likely will be discharged in the afternoon. This will occur after the afternoon therapy session.

Someone responsible needs to drive you home. You should receive written discharge instructions concerning medications, physical therapy, activity, etc. We will arrange for equipment. Take this guidebook with you. If you require home health services, the hospital will arrange for this.

Please keep in mind that the majority of our patients do so well that they do not meet the guidelines to qualify for inpatient rehabilitation. Also keep in mind that insurance companies do not become involved in social issues, such as lack of caregiver, animals, etc. These are issues you will have to address before deciding to have the surgery.

Anesthesia and Pain

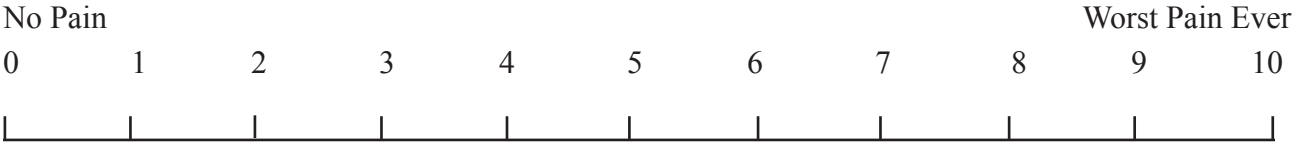
Pain Management

People used to think that severe pain after surgery was something they "just had to put up with." Today, with current pain control methods, that is no longer true. We provide a team approach to manage the pain from surgery.

Because there are no tests 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 on the pain scale below:

Pain Scale



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 need for pain control after surgery will be met immediately by either injections or oral medication.

Tell your nurse as soon as the pain starts. Your pain is easier to control if you do not allow it to become severe before taking pain medication. Your nurse will discuss a manageable schedule with you. With either method of pain medication, please notify your nurse or doctor if you are not getting pain relief. We want you to be as comfortable as possible while you heal. You will also be able to participate better in your own recovery activities.

By day two, 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.

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.

Types of anesthesia

Decisions regarding your anesthesia are tailored to your personal needs. The types available for you are:

- General Anesthesia provides loss of consciousness.
- Regional Anesthesia involves the injection of a local anesthetic to provide numbness, loss of pain, or loss of sensation to a large region of the body. Regional anesthetic techniques include spinal blocks, epidural blocks, and arm and leg blocks. Medications can be given to make you drowsy and blur your memory.
- Patients must inform the anesthesiologist of any problems encountered in the past with anesthesia of any type.

Cold Therapy

Cold therapy, such as application of ice packs, will also be provided as an intervention to reduce swelling and pain. Cold therapy produces an anesthetic effect when placed on the surgical area.

We recommend that ice packs be applied to the surgery site for 20 minutes every four hours (four or five times each day) throughout your hospitalization. Don't hesitate to ask your nursing staff for ice packs between various activities.

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

Relaxation Exercises

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

1. Breathe in slowly and deeply through your nose.
2. As you breathe out slowly through your mouth, feel yourself beginning to relax and 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.
4. To help you focus on your breathing, breathe slowly and rhythmically. Breathe in and say silently to yourself, "in, two, three"; then breathe out and say silently to yourself, "out, two, three."
5. It may help to imagine that you are doing this in a place that is very calming and relaxing for you, such as the beach or your own special place.
6. You may 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

What to Expect After Your Surgery

- "How are you feeling?" You will be asked this question many times throughout your stay. Please try to be as accurate as possible to assist your caregivers in providing you optimal care.
- Pain. We are concerned about your pain. You will be asked throughout the day to rate your level of pain. Please rate your pain on the 0-10 scale as previously described.
- 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 incentive spirometer (described on following pages) and to exercise your legs frequently in order to prevent complications.
- Sequential compression devices: Special leg wraps will be placed on your legs after surgery. These leg wraps attach to a pneumatic compression device designed to facilitate lower limb blood flow. The leg wraps are to be worn during the first couple of days after surgery when in bed.

Post-Operative Care

Caring For Yourself at Home

When you go home, there are a variety of things you need to know for your safety, your recovery, and your comfort.

Control Your Discomfort

- Take your pain medicine at least 30 minutes before physical therapy.
- Gradually wean yourself from prescription medication to non-prescription pain reliever. You may take two extra-strength Tylenol® doses in place of your prescription medication up to four times per day.
- Change your position every 45 minutes throughout the day.
- Use ice for pain control. Applying ice to your affected joint will decrease discomfort, but do not use for more than 20 minutes each hour. You can use it before and after your exercise program. A bag of frozen peas wrapped in a kitchen towel makes an ideal ice pack. Mark the bag of peas and return them to the freezer so they can be used as an ice pack again later.

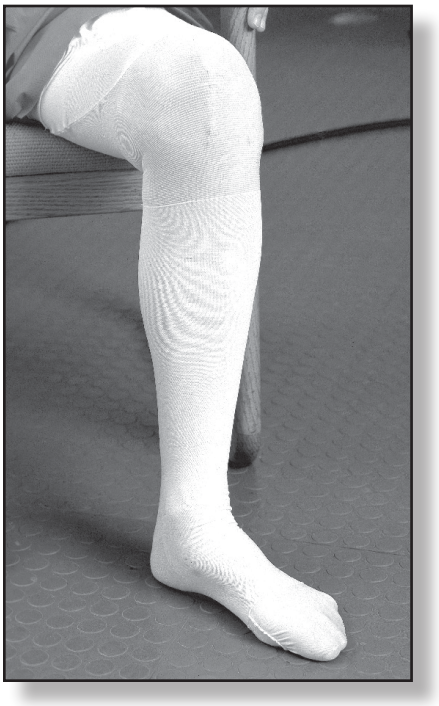
Body Changes

- Your appetite may be poor. Drink plenty of fluids to keep from getting dehydrated. Your desire for solid food will return.
- You may have difficulty sleeping, which is normal. Do not sleep or nap too much during the day.
- Your energy level will be decreased for at least the first month.
- Pain medication that contains narcotics can cause constipation. Use stool softeners or laxatives, if necessary.

Blood Thinners

You will be given a blood thinner to help avoid blood clots in your legs. Be sure to take as directed by your surgeon.

Post-Operative Care



Stockings

You may be asked to wear special stockings. These stockings are used to help compress the veins in your legs. This helps keep swelling down and reduces the chance for blood clots.

- If swelling in the operative leg is bothersome, elevate the leg for short periods throughout the day. It is best to lie down and raise the leg above heart level.
- Wear the stockings continuously, removing for one to two hours twice a day.
- Notify your physician if you notice increased pain or swelling in either leg.
- Ask your surgeon when you can discontinue stockings. Usually, this will be done approximately three weeks after surgery.

Caring For Your Incision

- Keep your incision dry.
- Keep your incision covered with a light dry dressing until your staples or sutures are removed, usually 10–14 days.
- You may shower seven days after surgery as long as your incision is dry. After showering, apply a dry dressing as long as you have no drainage from the surgical incision.
- Notify your surgeon if there is increased drainage, redness, pain, odor, or heat around the incision. After showering, put on a dry dressing.
- Take your temperature twice daily for 2 weeks. Call your surgeon if it exceeds 100.5° F.

Recognizing & Preventing Potential Complications

Infection

Signs of Infection

- Increased swelling and redness at incision site
- Change in color, amount, odor of drainage
- Increased pain in knee
- Fever greater than 100.5° F

Prevention of Infection

- Take proper care of your incision as explained
- Take prophylactic antibiotics when having dental work or other potentially contaminating procedures
- Notify your physician and dentist that you have a joint replacement

Post-Operative Care

Blood Clots in Legs

Surgery may cause the blood to slow and coagulate in the veins of your legs, creating a blood clot. This is why blood thinners are taken after surgery. If a clot occurs despite these measures you may need to be admitted to the hospital to receive intravenous blood thinners.

Signs of blood clots in legs

- Swelling in thigh, calf, or ankle that does not go down with elevation
- Pain, heat, and tenderness in calf, back of knee, or groin area. NOTE: blood clots can form in either leg

Prevention of blood clots

- Ankle pumps
- Walking
- Compression stockings
- Blood thinners

Pulmonary Embolism

An unrecognized blood clot could break away from the vein and travel to the lungs. This is a medical emergency and you should CALL 911 **IMMEDIATELY** if suspected.

Signs of a Pulmonary Embolism

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath
- Sweating
- Confusion

Prevention of Pulmonary Embolism

- Prevent blood clot in legs
- Recognize a blood clot in leg and call physician promptly

Post-Operative Care

Total Knee Replacement Post-operative Exercises & Goals

Activity Guidelines

Exercising is important to obtain the best results from total knee surgery. Always consult your physician before starting a home exercise program. You may receive exercises from a physical therapist at an outpatient facility or at home. In either case, you need to participate in an ongoing home exercise program as well. After each therapy session, ask your therapist to mark the appropriate exercises in your guidebook. These goals and guidelines are listed on the next few pages.

Weeks One and Two

Most joint replacement patients go directly home from the hospital. Typical two-week goals are to:

- Continue with walker unless otherwise instructed
- Walk at least 300 feet with support
- Climb and descend a flight of stairs (12–14 steps) with a rail once a day
- Actively bend your knee at least 90°
- Straighten your knee completely
- Independently sponge bathe or shower (after staples are removed) and dress
- Gradually resume homemaking tasks
- Do 20 minutes of home exercises twice a day, with or without the therapist, from the program given to you

Post-Operative Care

Weeks Two To Four

Weeks two to four will see you recovering to more independence. You will need to be very faithful to your home exercise program to be able to achieve the best outcome. Typical goals for the period are to:

- Achieve one to two week goals
- Wean from full support to a cane
- Walk at least one-quarter mile
- Climb and descend a flight of stairs (12–14 steps) more than once daily
- Bend your knee to 90° unless otherwise instructed
- Independently shower and dress
- Resume homemaking tasks
- Do 20 minutes of home exercises twice a day with or without the therapist
- You will need permission from your doctor before you begin driving
- Straighten your knee completely

Weeks Four To Six

Weeks four to six will see much more recovery to full independence. Your home exercise program will be even more important as you receive less supervised therapy. Your goals for this time period are to:

- Achieve one to four week goals
- Walk with a cane
- Walk one-quarter to one-half mile
- Begin progressing on stair from one foot at a time to regular stair climbing (foot over foot)
- Actively bend knee 110°
- Straighten your knee completely
- Drive a car (either right or left side surgery)
- Continue with home exercise program twice a day

Post-Operative Care

Weeks Six to 12

During weeks six to 12 you should be able to begin resuming all of your activities. Your goals for this time period are to:

- Achieve one to six week goals
- Walk without a cane and without a limp
- Climb and descend stairs in normal fashion (foot over foot)
- Walk one half to one mile
- Bend knee to 120°
- Straighten knee completely
- Improve strength to 80%
- Resume activities including dancing, bowling, and golf

Activities of Daily Living — Precautions and Home Safety Tips

Lying in Bed – Keep Knee Straight

Lie in bed with pillow under ankle. DO NOT put a pillow under your knee. Knee should be kept as straight as possible. Place a small pillow under your ankle to assist in straightening.

Post-Operative Care

Standing up from chair

Do NOT pull up on the walker to stand!

Sit in a chair with arm rests when possible.

1. Scoot to the front edge of the chair.
2. Push up with both hands on the armrests. If sitting in a chair without armrest, place one hand on the walker while pushing off the side of the chair with the other.
3. Balance yourself before grabbing for the walker.

Proper Method

Improper Method

Note: Your walker will have wheels on front legs.

Post-Operative Care

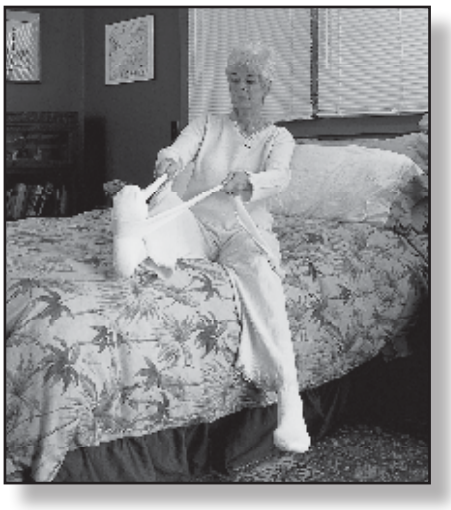
Transfer – Bed

When getting into bed:

1. Back up to the bed until you feel it on the back of your legs (you need to be midway between the foot and the head of the bed).
2. Reaching back with both hands, sit down on the edge of the bed and then scoot back toward the center of the mattress. (Silk pajama bottoms, satin sheets, or sitting on a plastic bag may make it easier).
3. Move your walker out of the way, but keep it within reach.
4. Scoot your hips around so that you are facing the foot of the bed.
5. Lift your leg into the bed while scooting around (if this is your surgical leg, you may use a cane, a rolled bed sheet, a belt, or your theraband to assist with lifting that leg into bed).
6. Keep scooting and lift your other leg into the bed.
7. Scoot your hips towards the center of the bed.

In

Out



When getting out of bed:

1. Scoot your hips to the edge of the bed.
2. Sit up while lowering your non-surgical leg to the floor.
3. If necessary, use a leg-lifter to lower your surgical leg to the floor.
4. Scoot to the edge of the bed.
5. Use both hands to push off the bed. If the bed is too low, place one hand in the center of the walker while pushing up off the bed with the other.
6. Balance yourself before grabbing for the walker.

Post-Operative Care

Transfer – Tub

Getting into the tub using a bath seat:

1. Place the bath seat in the tub facing the faucets.
2. Back up to the tub until you can feel it at the back of your knees. Be sure you are in front of the bath seat.
3. Reach back with one hand for the bath seat. Keep the other hand in the center of the walker.
4. Slowly lower yourself onto the bath seat, keeping the surgical leg out straight.
5. Move the walker out of the way, but keep it within reach.
6. Lift your legs over the edge of the tub, using a leg lifter for the surgical leg, if necessary.

Hold onto back of shower seat.

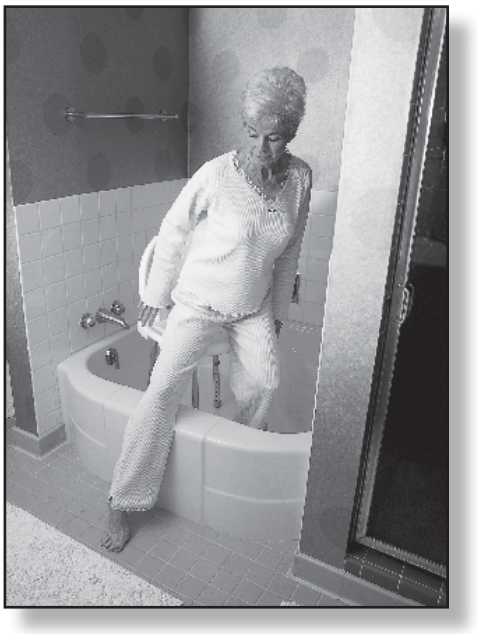
NOTE: Although bath seats, grab bars, long-handled bath brushes, and hand-held showers make bathing easier and safer, they are typically not covered by insurance.

NOTE: ALWAYS use a rubber mat or non-skid adhesive on the bottom of the tub or shower.

NOTE: To keep soap within easy reach, make a soap-on-a-rope by placing a bar of soap in the toe of an old pair of pantyhose and attach it to the bath seat.

Getting out of the tub using a bath seat:

1. Lift your legs over the outside of the tub.
2. Scoot to the edge of the bath seat.
3. Push up with one hand on the back of the bath seat while holding on to the center of the walker with the other hand.
4. Balance yourself before grabbing the walker.



Post-Operative Care

Transfer – Automobile

1. Push the car seat all the way back; recline it if possible, but return it to the upright position for traveling.
2. Place a plastic trash bag on the seat of the car to help you slide and turn frontward.
3. Back up to the car until you feel it touch the back of your legs.
4. Reach back for the car seat and lower yourself down. Keep your operated leg straight out in front of you and duck your head so that you do not hit it on the doorframe.
5. Turn frontward, leaning back as you lift the operated leg into the car.

Walking

1. Move the walker forward.
2. With all four walker legs firmly on the ground, step forward with surgical leg. Place the foot in the middle of the walker area. Do NOT move it past the front feet of the walker.
3. Bear weight through hands and surgical leg (weight bear amount as discussed by your therapist) and step foward with non-surgical leg.
4. Repeat sequence.

Stairclimbing

1. Ascend with non-surgical leg first (Up with the good).
2. Descend with the surgical leg first (Down with the bad).

Walker Ambulation

Note: Your walker will have wheels on the front.

Post-Operative Care

Around the House

Saving energy and protecting your joints

Kitchen

- Do NOT get down on your knees to scrub floors. Use a mop and long-handled brushes.
- Plan ahead! Gather all your cooking supplies at one time. Then, sit to prepare your meal.
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching.
- To provide a better working height, use a highstool, or put cushions on your chair when preparing meals.

Bathroom

- Do NOT get down on your knees to scrub bathtub.
- Use a mop or other long-handled brushes.

Safety and Avoiding Falls

- Pick up throw rugs and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly anchored to the floor or that have non-skid backs.
- Be aware of all floor hazards such as pets, small objects, or uneven surfaces.
- Provide good lighting throughout. Install nightlights in the bathrooms, bedrooms, and hallways.
- Keep extension cords and telephone cords out of pathways. Do NOT run wires under rugs; this is a fire hazard.
- Do NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.
- Sit in chairs with arms. It makes it easier to get up.
- Rise slowly from either a sitting or lying position to avoid getting light-headed.
- Do not lift heavy objects for the first three months and then only with your surgeon's permission.

Post-Operative Care

Do's and Don'ts For the Rest of Your Life

Whether they have reached all the recommended goals in three months or not, all joint patients need to have a regular exercise program to maintain their fitness and the health of the muscles around their joints. With both your orthopedic and primary care physicians' permission you should be on a regular exercise program three to four times per week lasting 20–30 minutes. Impact activities such as running and singles tennis may put too much load on the joint and are not recommended. High-risk activities such as downhill skiing are likewise discouraged because of the risk of fractures around the prosthesis and damage to the prosthesis itself. Infections are always a potential problem and you may need antibiotics for prevention.

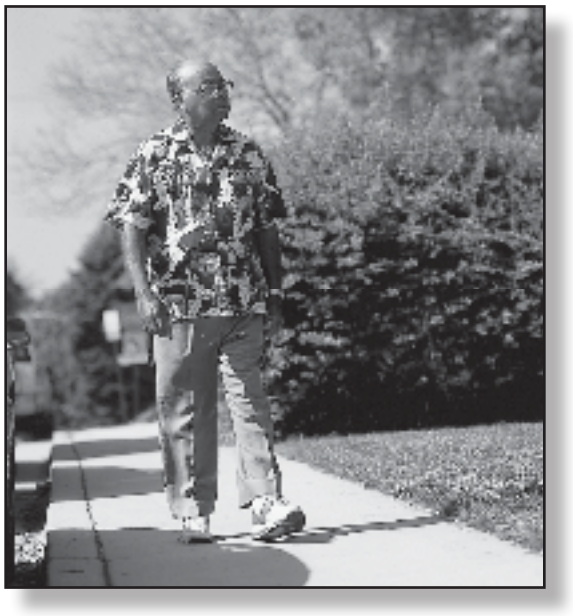
What to Do in General

- Although the risks are very low for post-operative infections, it is important to realize that the risk remains. A prosthetic joint could possibly attract the bacteria from an infection located in another part of your body. If you should develop a fever of more than 100.5° or sustain an injury such as a deep cut or puncture wound you should clean it as best you can, put a sterile dressing or an adhesive bandage on it and notify your doctor. The closer the injury is to your prosthesis, the greater the concern. Occasionally, antibiotics may be needed. Superficial scratches may be treated with topical antibiotic ointment. Notify your doctor if the area is painful or reddened.
- When traveling, stop and change positions hourly to prevent your joint from tightening.
- See your surgeon yearly unless otherwise recommended.

What to Do for Exercise

Choose a Low Impact Activity

- Recommended exercise classes
- Home program as outlined in this guidebook
- Regular one to three mile walks
- Home treadmill (for walking)
- Stationary bike
- Regular exercise at a fitness center
- Low-impact sports such as golf, bowling, walking, gardening, dancing, etc.



What Not to Do

- Do not run or engage in high-impact activities
- Do not participate in high-risk activities such as downhill skiing, etc.

Physician & Physical Therapist Use Only

Hospital Rehab on Discharge: Physical Therapist/Occupational Therapist			
P.T. Name:		Phone:	Date:
O.T. Name:		Phone:	Date:
Knee ROM: Sitting		P.R.O.M. Extension:	P.R.O.M. Flexion:
ADL Equipment Issued: Reacher Other:		Sock Aid	Long Shoe Horn
Bed Mobility:		Transfers:	
Stair Skills:	Gait Skills:	Amb. Distance:	Assist Level:
Lower Body ADL: MOD I	Supervision	_____Assist	Dependent

Understanding Your Blood Thinners

You will be discharged home on a blood thinner. This is an important component of your recovery. Please be sure to take your medication exactly as prescribed by your doctor.

Coumadin

You have been prescribed to take a certain dosage of coumadin daily. Please take this medication the same time every night. You can expect to take coumadin for up to 6 weeks.

This medication will require weekly monitoring of blood levels, which can be performed by your visiting nurse. If you do not have or have finished with visiting nurse services please make arrangements to have your blood drawn in an outpatient laboratory.

If you miss a dose, take it as soon as you remember. If it is almost time for your next dose, wait until then to use the medication. Do not use extra medicine to make up for your missed dose.

Many drugs interact unfavorably with coumadin, making it more potent, which can cause bleeding. Please do not take aspirin or anti-inflammatory agents (motrin, naprosyn, alleve, advil, etc) while you are taking this medication.

Do not use a straight razor to shave.

Do not use alcohol while taking coumadin.

Some foods high in vitamin K may interfere with the effects of this drug. Coumadin works best when your diet is healthy and balanced and has the same amount of vitamin K in it every day. Foods with high amounts of vitamin K include: broccoli, brussel sprouts, cabbage, spinach and salad greens (green leafy vegetables). Avoid using cranberry or grapefruit juice whle taking coumadin.

Notify your doctor if you experience any of the following symptoms:

Excessive bruising.

Coughing or vomitting blood, nose bleeds, gum or mouth bleeding, blood in urine, black stools, and/or bleeding from cuts or wounds that will not stop.

Please review the coumadin education guide provided to you by the hospital for more details.

Discharge

Lovenox

You have been prescribed to take a certain dosage of Lovenox daily. This drug is administered once daily by injection subcutaneously (under the skin). Lovenox is packaged ready to administer. You and/or your coach will be instructed on how to administer Lovenox before leaving the hospital. You will be shown the body areas where Lovenox can be given. Keep track of where you give each shot to make sure you rotate body areas. You can expect to take Lovenox for up to 2 weeks.

Store used needles in a hard, closed container that the needles can not poke through. Please keep the container away from children and pets. The hospital has a needle disposal program. Please call 845-561-4400 to obtain more information.

Notify your doctor if you experience any of the following symptoms:

Excessive bruising.

Coughing or vomiting blood, nose bleeds, gum or mouth bleeding, blood in urine, black stools, and/or bleeding from cuts, wounds, or the injection site that will not stop.

Discharge

Rehab Instructions for Going Home

You are going home with equipment (rolling walker) for walking. You MUST protect your knee for two weeks while the soft tissue is healing. DO NOT go to a cane until your return visit to your doctor. Walker/cane height may have to be adjusted to accommodate shoes.

Exercises:

The exercise instructions you received cover the acute care phase of your rehabilitation. Continue your exercises a minimum of twice daily when you get home.

When you start your rehab after release from the hospital, the therapist will advance your program working on progressive resistance exercises for strength, flexibility, speed and balance. Application of ankle weights should not be applied until cleared by your therapist.

Make sure you take your pain medication 15 to 30 minutes before you exercise. Do your home exercises lying flat in bed. The sliding boards should not be required; however, if you are having difficulty, you can use a large cardboard box, vinyl shower curtain, cookie sheet, silk sheets or heavy plastic board to reduce the friction and facilitate sliding.

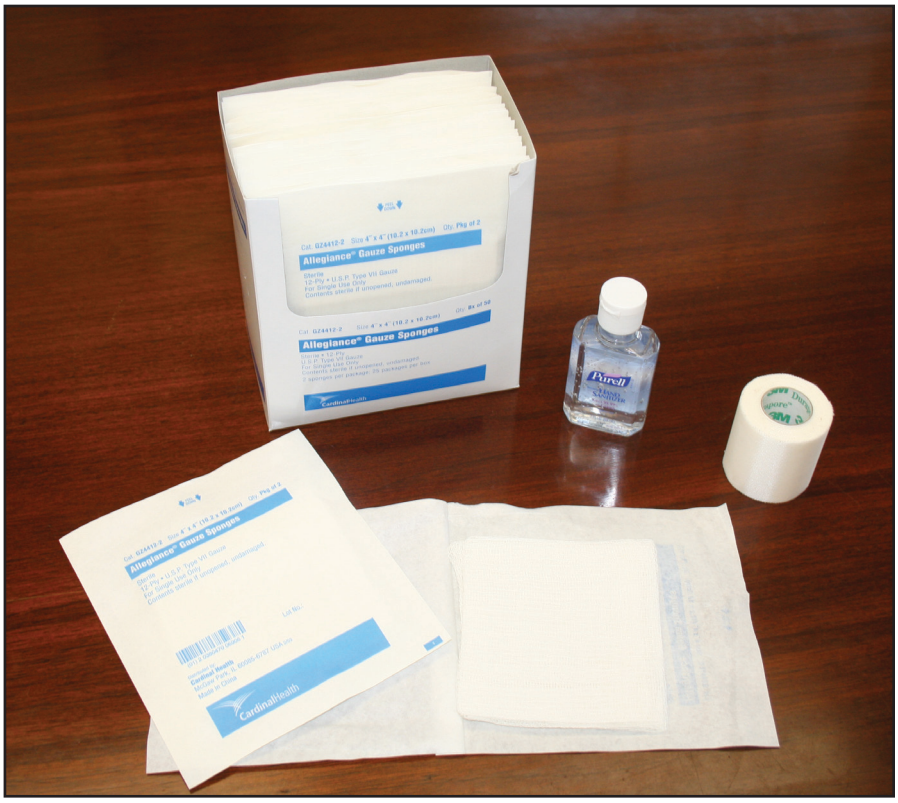
You should use the ice packs for a minimum of 20 minutes, 6-8 times per day. This will reduce swelling and pain in the operated leg. A bag of frozen peas can be used as an ice pack. You can make your own ice pack by mixing 1 cup of rubbing alcohol with 2 cups of water in large Ziploc freezer bags (double bag) and place in freezer until it turns into slush.

Important Knee Information:

Always use the ice along with the 5-pound weight during the prolonged extension stretch twice a day. Do not use any weight if you are already at zero degrees of extension. Rocking half hour, 1-2 times daily should be followed by your extension stretch for 20 minutes.

Dressing Change Procedure

1. **Wash hands with soap and water and/or hand sanitizer.**
2. Open all dressing change materials: Gauze pads, 3 – 4 strips of paper tape.
3. Remove old dressing.
4. Inspect incision for the following:
    - Increased redness
    - Increased drainage
    - Yellow/green drainage
    - Odor
    - Surrounding skin is hot and/or painful to touch
5. Pick up gauze by pad corner and place it lengthwise over the incision. **Be careful not to touch the inside of the dressing that covers the incision. Secure with tape.**



Discharge

Infection Prevention:

- Incentive spirometer every four hours while awake for two weeks
- Change dressing every day and check wound
- Eat a healthy diet
- Perform your postoperative exercises
- Allow for periods of rest

Call your doctor if:

- Your temperature greater than 100.5 degrees
- Your surgical site is red, swollen or has foul smelling and/or looking drainage from suture line
- Increasing or sudden SOB
- Fall and injure new joint
- Toes of operative side become numb, tingle, blue or pale in color
- Swelling in thigh, calf or ankle that does not go down with elevation (possible blood clot)
- Pain, heat and tenderness in calf, back of knee or groin area

Exercise Your Right
Put Your Health Care Decisions in Writing

It is our policy to place patients' wishes and individual considerations at the forefront of their care and to respect and uphold those wishes.

What are Advance Medical Directives?

Advance Directives are a means of communicating to all caregivers the patient's wishes regarding health care. If a patient has a Living Will or has appointed a Health Care Agent and is no longer able to express his or her wishes to the physician, family, or hospital staff, the Medical Center is committed to honoring the wishes of the patient as they are documented at the time the patient was able to make that determination.

There are different types of Advance Directives and you may wish to consult your attorney concerning the legal implications of each.

LIVING WILLS are written instructions that explain your wishes for health care if you have a terminal condition or irreversible coma and are unable to communicate.

APPOINTMENT OF A HEALTH CARE AGENT (sometimes called a Medical Power of Attorney) is a document that lets you name a person (your agent) to make medical decisions for you, if you become unable to do so.

HEALTH CARE INSTRUCTIONS are your specific choices regarding use of life sustaining equipment, hydration and nutrition, and use of pain medications.

On admission to the hospital you will be asked if you have an Advance Directive. If you do, please bring copies of the documents to the hospital with you so they can become a part of your Medical Record. Advance Directives are not a requirement for hospital admission.

Appendix - Antibiotic Prophylaxis for Patients with Joint Replacement

Please inform your care provider of your joint replacement, should you need future medical procedures. Your orthopedic surgeon recommends the table below be shared with your care provider in order to make the best decision regarding the care of your total joint.

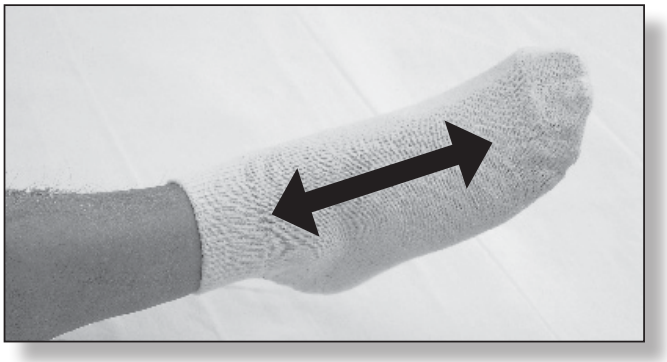
Procedure	Antimicrobial Agent	Dose	Timing	Duration
Dental	Cephalexin, Cephradine, Amoxicillin	2 gm PO	1 hour prior to procedure	Discontinued within 24 hours of the procedure. For most outpatient/ office-based procedures a single pre-procedure dose is sufficient.
Ophthalmic	Gentamicin, Tobramycin, Ciprofloxacin, Gatifloxacin, Levofloxacin, Moxifloxacin, Ofloxacin, or Meomycin-Gramicidin-Polymyxin B Cefazolin	Multiple drops topically over 2-24 hours or 100 mg subconjunctivally.	Consult ophthalmologist or pharmacist for dosing regimen.	
Orthopaedic	Cefazolin, Cefuromixme OR Vancomycin	1-2 g IV 1.5 g IV 1 g IV	Begin dose 60 minutes prior to procedure	
Vascular	Cefazolin OR Vancomycin	1-2 g IV 1 g IV	Begin dose 60 minutes prior to procedure	
Gastrointestinal				
Esophageal, gastroduodenal	Cefazolin	1-2 g IV	Begin dose 60 minutes prior to procedure	
Biliary tract	Cefazolin	1-2 g IV		
Colorectal	Neomycin + Erythromycin base (oral) OR Metronidazole (oral)	1 g 1 g	Dependent on time of procedure, consult with GI physician and/or pharmacist	
Head and Neck	Clindamycin + Gentamicin OR cefazolin	600-900 mg IV 1.5 mg/kg IV 1-2 g IV	Begin dose 60 minutes prior to procedure	
Obstetric and Gynecological	Cefoxitin, Cefazolin, Ampicillin/Sulbactam	1-2 g IV 3 g IV	Begin dose 60 minutes prior to procedure	
Genitourinary	Ciprofloxacin	500 mg PO OR 400 mg IV	1 hour before procedure Begin dose 60 minutes prior to procedure	

Reference: American Acadamy of Orthopedic Surgeons (May 2009)

Exercises

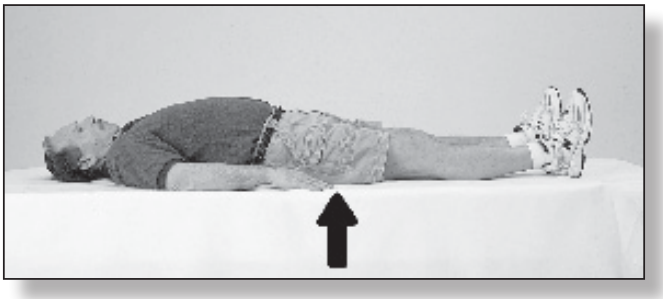
Range of Motion and Strengthening Exercises

(1) Ankle Pumps



Flex foot. Point Toes. Repeat 20 times.

(3) Gluteal Sets — (Bottom Squeezes)



Squeeze bottom together. Do NOT hold breath.
Repeat 20 times.

(2) Quad Sets — (Knee Push-Downs)

Lie on back, press *left* knee into mat, tightening muscles on front of thigh. Do NOT hold breath. For the right thigh, straighten right leg and bend left knee (reverse of picture above). Tighten muscles in front of right thigh, pressing back of right knee to the mat. Repeat 20 times.

(4) Hip Abduction and Adduction — (Slide Heels Out and In)

Lie on back, slide legs out to side. Keep toes pointed up and knees straight. Bring legs back to starting point. Repeat 20 times.

Exercises

(5) Heel Slides — (Slide Heels Up and Down)

Lie on couch or bed. Slide heel toward your bottom. Repeat 20 times.

(6) Short Arc Quads

Lie on back, place towel roll under thigh. Lift foot, straightening knee. Do not raise thigh off roll. Repeat 20 times.

(7) Knee Extension — Long Arc

Sit with back against chair. Straighten knee. Repeat 20 times.

Exercises

(8) Armchair Push-Ups

This exercise will help strengthen your arms for walking with crutches or a walker. Sit in an armchair. Place hands on armrests. Straighten arms, raising bottom up off chair seat if possible. Feet should be flat on floor. Repeat 20 times.

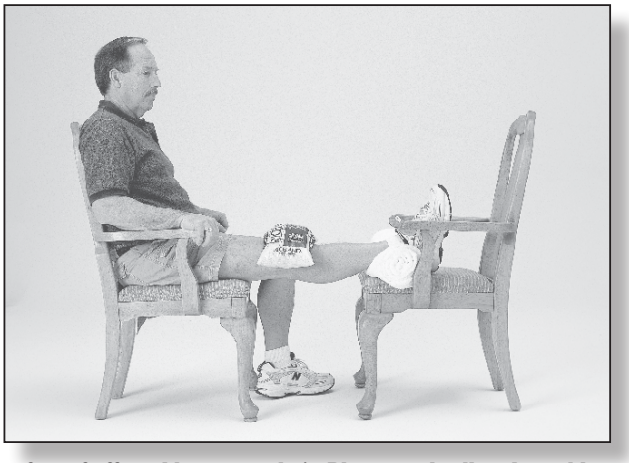
(9) Seated Hamstring Stretch

Sit on couch or bed with leg extended. Lean forward and pull ankle up. Stretch until pull is felt. Hold for 20–30 seconds. Keep back straight. Relax. Repeat 5 times.

(10) Straight Leg Raises

Lie on back, unaffected knee bent, and foot flat. Lift opposite leg up 12 inches. Keep knee straight and toes pointed up. Relax. Repeat 20 times.

(11) Knee Extension Stretch



Prop foot of affected leg up on chair. Place towel roll under ankle and ice pack over knee. Put 5–10 lbs. of weight on top of knee (a 5–10 lb. bag of rice works well). Do for 20 minutes.

Exercises

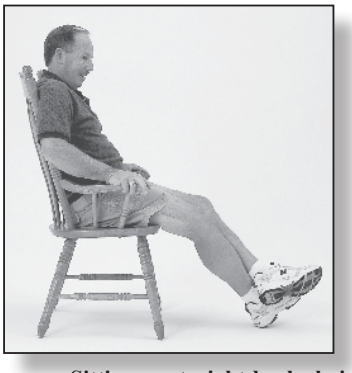
(12) Short Arc Quads

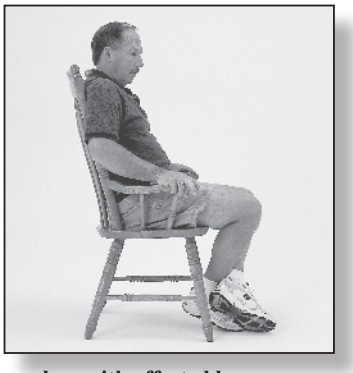
Lie on back, place towel roll under thigh. Lift foot, straightening knee. Do not raise thigh off roll. Repeat 20 times.

(13) Straight Leg Raises

Lie on back, unaffected knee bent, and foot flat. Lift opposite leg up 12 inches. Keep knee straight and toes pointed up. Relax. Repeat 20 times.

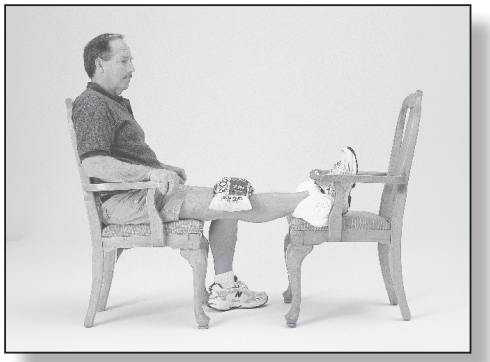
(14) Seated Knee Flexion





Sitting on straight-back chair, cross legs with affected leg on bottom. Slide feet underneath chair. Keep hips on chair. Try to gently stretch and bend knee as far as possible. Plant foot and move bottom forward on chair. Repeat 20 times.

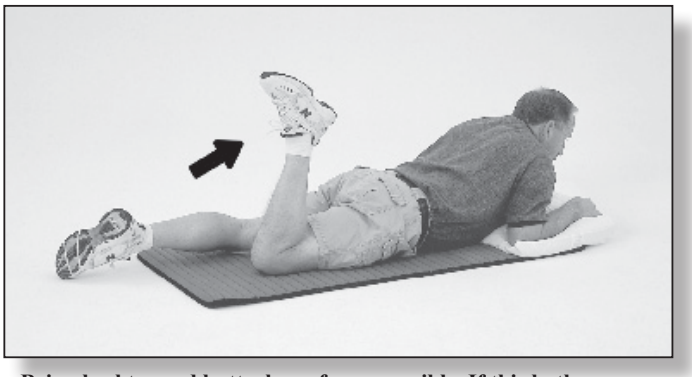
(15) Extension Stretch



Prop foot of operated leg up on chair. Place towel roll under ankle and ice pack over knee. Put 5–10 lbs. of weight on top of knee (a 5–10 lb. bag of rice works well). Do for 20 minutes.

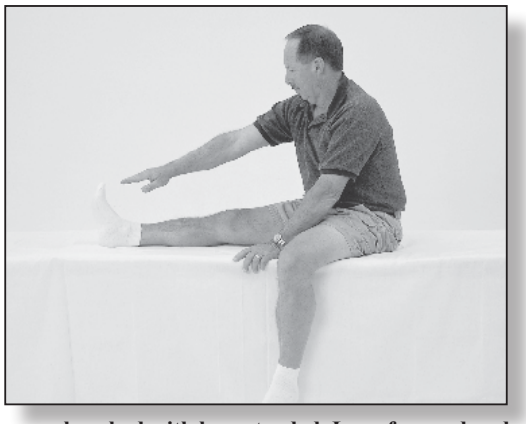
Exercises

(16) Prone Knee Flexion Stretch



Bring heel toward buttocks as far as possible. If this bothers your back, keep a pillow under your stomach. Repeat 20 times.

(17) Seated Hamstring Stretch



Sit on couch or bed with leg extended. Lean forward and pull ankle up. Stretch until pull is felt. Hold for 20–30 seconds. Keep back straight. Relax. Repeat 5 times.

(18) Knee Extension — Long Arc

Sit with back against chair. Straighten knee. Repeat 20 times

(19) Quarter Squat

With feet shoulder-width apart and back to wall, slide down wall until knees are at 30–45° of bend. Return to upright position. Do this with your therapist first.
CAUTION: YOU SHOULD NOT BEND KNEES ENOUGH TO CAUSE PAIN.

Exercises

(20) Standing Knee Flexion

Standing, hold on to firm surface. Bend knee of involved leg up behind you. Straighten to full stand. Repeat 20 times.

(22) Hip Flexion

Standing, march in place.

(21) Ankle Dorsiflexion — Plantar Flexion

Standing, hold on to firm surface. Raise up on toes. Go back on heels.

(23) Single Leg Step-Up

With foot of involved leg on step, straighten that leg. Return. Use a step. Height of step will depend on your strength. Start low. You may exercise good leg as well.
NOTE: PLEASE DO THESE WITH YOUR THERAPIST FIRST.

Exercises

(24) Retro Leg Step-Up

Step backwards with one foot then the other. Step off forward in the same way. Do this with your therapist first. Use a step. Ask therapist how high it should be.