Bothwell™
Regional Health Center

guidebook for knees

Welcome

_____

Patient Name

_____

Surgery Date

Please arrive at the hospital by _____

Pre-op Education Class _____

Pre-op Assessment/Anesthesia Clinic Appointment _____

Please Bring This Book With You To:

- Every office visit
- Your hospital pre-op class
- The hospital on admission
- All physical therapy visits after surgery

Bothwell
Center for Joint Replacement

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Appendix

Instructions for professionals

The GuideBook will improve communication between all the health professionals who will be caring for the total knee patient. The use of the clinical diary in the front of the guide will allow all the important information to be shared. Many patients see multiple professionals during the first three months after surgery.

Clinical Diary

Surgeons/Physicians' Assistants

Preoperatively, please record the following information in the Clinical Diary:
(patient should bring this guide to the hospital)

- Your name and patient's diagnosis
- Preoperative deformities/instabilities
- Preoperative range of motion (ROM)-active and passive

Postoperatively, please record the following information in the Clinical Diary:

- Prosthetic type
- Special surgical procedures (e.g., lateral release, bone grafting, etc.)
- Special precautions or concerns (e.g., tendon disruptions, etc.)
- Weight-bearing status
- Motion obtained at surgery

After recording the data, please return the guide to your patient or hospital therapist.

Hospital Physical Therapist

Please fill out the hospital rehabilitation section in the Clinical Diary upon patient discharge.

- Include your name and phone number
- If the patient is going home, please mark the appropriate home exercises

Sub-Acute/Home Health/Outpatient Physical Therapist

- Review the entire guide so that you are familiar with it and the goals that we expect to be met
- Review all information in the Clinical Diary and document the progress at least once a week
- Include your name and phone number
- Choose the appropriate exercise programs in the guide and mark them accordingly for the patient's home program

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 Recommended:	Reacher	Sock Aid	Long Shoe Horn
Other:			
Bed Mobility:		Transfers:	
Stair Skills:	Gait Skills:	Amb. Distance:	Assist Level:
Lower Body ADL: MOD I	Supervision	_____Assist	Dependent

General Information

Welcome

Thank you for choosing The Bothwell Center for Joint Replacement to help restore you to a higher quality of living with your new prosthetic joint.

Annually, over 700,000 people undergo total joint replacement surgery. Primary candidates are individuals with chronic joint pain from arthritis that interferes with daily activities, walking, exercise, leisure, recreation, and work. The surgery aims to relieve pain, restore your independence, and return you to work and other daily activities.

Total knee replacement patients typically recover quickly. Patients will be able to walk the first day after surgery. Generally, patients are able to return to driving in 4 weeks, dancing in 4–6 weeks, and golf in 6–12 weeks.

The Bothwell Center for Joint Replacement has implemented a comprehensive planned course of treatment. We believe that you play a key role in promoting a successful recovery. Our goal is to involve you in your treatment through each step of the program. This guide will give you the necessary information to promote a more successful surgical outcome.

Your team includes physicians, nurses, aides, and physical and occupational therapists specializing in total joint care. Every detail, from preoperative teaching to postoperative exercising, is considered and reviewed with you. The Joint Care Coordinator will plan your individual treatment program and guide you through it.

General Information

The Purpose of the GuideBook

Preparation, education, continuity of care, and a pre-planned discharge are essential for optimum results in joint surgery. Communication is essential to this process. The GuideBook is a communication and education tool for patients, physicians, physical and occupational therapists, and nurses. It is designed to educate you so that you know:

- What to expect every step of the way
- What you need to do
- How to care for your new joint

Remember, this is just a guide. Your physician, nurses, or therapist may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your GuideBook as a handy reference for at least the first year after your surgery.

Using the GuideBook

Instructions for Patients

- Read General Information Section
- Read Preoperative Checklist Section—check off as you complete
- Read Hospital Care and Postoperative Care Sections for surgical and postoperative information
- Carry your GuideBook with you to hospital, sub-acute, outpatient therapy, and all physician visits

General Information

Overview of The Bothwell Center for Joint Replacement

The Bothwell Center for Joint Replacement is unique. It is a dedicated center within the hospital. Patients have their surgery on Monday or Tuesday and typically return home after a two night stay in the hospital.

Features of the program include:

- Nurses, therapists and aides who specialize in the care of joint patients
- Private rooms
- Emphasis on group activities as well as individual care
- Family and friends educated to participate as "coaches" in the recovery process
- A Joint Care Coordinator who coordinates all preoperative care and discharge planning
- A comprehensive patient guide for you to follow from six weeks pre-op until three months post-op and beyond
- Coordinated after-care program

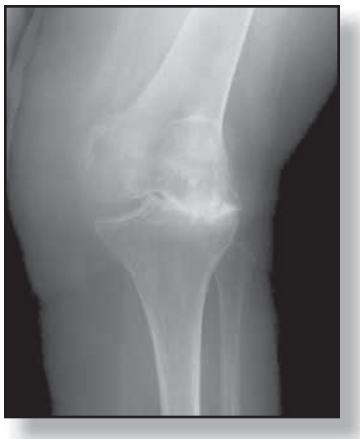
General Information

Frequently Asked Questions About Total Knee Surgery

We are glad you have chosen the Bothwell 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 or the Total Joint Care Coordinator. We want you to be completely informed about this procedure.

What is osteoarthritis and why does my knee hurt?

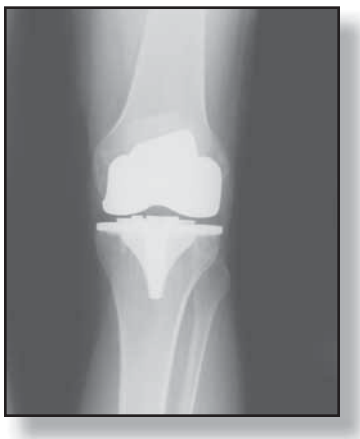
Joint cartilage is a tough, smooth tissue that covers the ends of bones where joints are located. It helps cushion the bones during movement, and because it is smooth and slippery, it allows for motion with minimal friction. Osteoarthritis, the most common form of arthritis, is a wear and tear condition 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.

General Information

Am I too old for this surgery?
Age is generally 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 personal 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 may 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?
Depending on your lab results, you may need a blood transfusion after surgery.

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

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

General Information

What if I live alone?
Three options are usually available to you. You may return home and receive help from a relative or friend. You can have a home health nurse and physical therapist assist you at home, or you may utilize outpatient physical therapy, both for a period of 4-6 weeks.

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 surgery, the Total Joint Care Coordinator will contact you. The Total Joint Care Coordinator will guide you through the program and make arrangements for both pre-op and post-op care. The coordinator's role is described in the GuideBook.

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 a spinal or epidural anesthetic, which numbs the legs only and does not require you to be asleep. The choice is between you, your surgeon, and the anesthesiologist. For more information, read "Anesthesia" in your GuideBook appendix.

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, crutches, or a cane?
Yes, for about six weeks we do recommend that you use a walker, a cane, or crutches. The Total Joint Care Coordinator can arrange for them if necessary.

General Information

Where will I go after discharge from the hospital?
Most patients are able to go home directly after discharge. Some patients may transfer to a sub-acute facility, where they will stay from five to ten days. The Total Joint Care Coordinator will help you with this decision and make the necessary arrangements. You should check with your insurance company to see if you have sub-acute rehab benefits.

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 Total Joint Care Coordinator will assist with arrangements as needed. Family or friends need to be available to help if possible.

Preparing ahead of time, 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 Total Joint Care Coordinator 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 crutches. 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. The Total Joint Care Coordinator can provide you with additional information upon request.

General Information

How often will I need to be seen by my doctor following the surgery?
You will be seen for your first postoperative office visit within four weeks after discharge. The frequency of follow-up visits will depend on your progress. You may be seen several times the first year, 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.

Preoperative Checklist

What to do Six Weeks Before Surgery

Role of the Total Joint Care Coordinator

The Total Joint Care Coordinator will be responsible for your care needs from the preoperative course through discharge and postoperative discharge follow-up.

The Total Joint Care Coordinator will:

- Assess your needs at home including caregiver availability
- Assess and plan for your specific care needs such as anesthesia and medical clearance for surgery
- Coordinate your discharge plan to outpatient services, home, or a sub-acute facility
- Assist you in getting answers to insurance questions
- Act as your liaison throughout the course of treatment from preoperative through postoperative discharge
- Answer questions and coordinate your hospital care with the Bothwell Center for Joint Replacement team members
- Coordinate scheduling for preoperative total joint class and verify appointments for medical testing
- Act as a liaison for coordination of your preoperative care between the doctor's office, the hospital, and the testing facilities, if necessary
- Verify that you have made an appointment, if necessary, with your medical doctor and have obtained the preoperative tests your doctor has ordered
- Answer questions and direct you to specific resources within the hospital

Preoperative Checklist

Insurance

Before surgery, the orthopedic surgeons office will contact your insurance company to find out if a pre-authorization, a pre-certification, a second opinion, or a referral form is required.

If you do not have insurance, please notify the registration staff when they call you for pre-registration that you will need help in making payment arrangements.

Pre-Register

After your surgery has been scheduled, you will be called for pre-registration information. You will be asked to have the following information ready when you are contacted:

- Patient's full legal name and address, including county
- Home phone number
- Marital status
- Social Security number
- Name of insurance holder, his/her address, phone number, work address, and work phone number
- Name of your insurance company, mailing address, policy and group numbers, and insurance card
- Your employer, address, phone number, and occupation
- Name, address, and phone number of nearest relative
- Name, address, and phone number of someone to notify in case of emergency (this can be the same as the nearest relative)
- Bring your insurance card, driver's license or photo I.D., and any co-payment required by insurance company with you to the hospital

Obtain Medical and Anesthesia Clearance

When you were scheduled for surgery, you should have received a Pre-op assessment appointment from your surgeon. If you need to see your primary care doctor or dentist, it will be for preoperative medical clearance. The Total Joint Care Coordinator may order additional physician consults after discussing your medical history with the anesthesiologist.

Billing for Services

After your procedure, you will receive separate bills from the surgeon, anesthesiologist, the hospital, and the radiology and pathology departments (if applicable). If your insurance carrier has specific requirements regarding participation status, please contact your carrier.

Preoperative Checklist

Start Preoperative Exercises

Many patients with arthritis favor their joints and thus the joints become weaker, which interferes with their recovery. **It is important that you begin the following exercise program before surgery. If you have trouble, or questions about the exercises, please notify the Total Joint Care Coordinator.**

Attend Preoperative Class

A special class is held for patients scheduled for joint surgery. The Total Joint Care Coordinator will schedule this class for you 2–3 weeks prior to your surgery. You will only need to attend one class. Members of the "team" will be there to answer your questions. It is strongly suggested that you bring a family member or friend to act as your "coach." The coach's role will be explained in class. The outline of the class is as follows.

- Slide Presentation
- What to Expect
- Role of your "Coach"/Caregiver
- Meet the Joint Replacement Team
- Learn Your Breathing Exercises
- Reviewing Your Preoperative Exercises
- Learn About Assistive Devices and Joint Protection
- Discharge Planning/Insurance/Obtaining Equipment
- Complete Preoperative Forms
- Questions and Answers

Review "Exercise Your Right"

The law requires that everyone being admitted to a medical facility has the opportunity to make advance directives concerning future decisions regarding their medical care. Please refer to the appendix for further information. Although you are not required to do so, you may make the directives you desire. **If you have advance directives, please bring copies to the hospital on the day of surgery.**

Preoperative Checklist

Four Weeks Before Surgery —

Start Vitamins

Prior to your surgery, you may be instructed by your surgeon to take multivitamins with iron.

Read "Anesthesia" (Appendix)

Total Joint Surgery does require the use of either general anesthesia or regional anesthesia. Please review "Anesthesia" (see appendix) provided by our anesthesia department. If you have questions or want to request a particular anesthesiologist, please contact the Total Joint Care Coordinator or your surgeon's office.

Stop Smoking

It is essential to stop smoking before surgery. Smoking impairs oxygen circulation to your healing joint. Oxygen circulation is vital to the healing process. Your surgeon can give you a prescription for medication to help you stop smoking. There are a variety of options available to help you. Please discuss with your surgeon or family physician.

Seven Days Before Surgery

Stop Medications That Increase Bleeding

Seven days before surgery, stop all anti-inflammatory medications such as aspirin, Plavix, Persantine, Motrin®, Naproxen, Vitamin E, etc. These medications may cause increased bleeding. If you are taking a blood thinner, you will need special instructions for stopping the medication. The anesthesiologist or nurse will instruct you about what to do with your other medications at your pre-op assessment/anesthesia clinic visit.

Prepare Your Home for Your Return from the Hospital

Have your house ready for your arrival back home. Clean, do the laundry, and put it away. Put clean linens on the bed. Prepare meals and freeze them in single serving containers. Cut the grass, tend to the garden, and finish any other yard work. Pick up throw rugs and tack down loose carpeting. Remove electrical cords and other obstructions from walkways. Install night lights in bathrooms, bedrooms, and hallways. Arrange to have someone collect your mail and take care of pets or loved ones, if necessary.

Preoperative Checklist

Day Before Surgery

Confirmation of Arrival Time at Hospital

You will be asked to come to the hospital approximately two hours before the scheduled surgery to give the nursing staff sufficient time to start IV's, prep, and answer questions. It is important that you arrive on time to the hospital because sometimes the surgical time is moved up at the last minute and your surgery could start earlier. If you are late, it may create a significant problem with starting your surgery on time. In some cases, lateness could result in moving your surgery to a much later time.

Night Before Surgery

Do Not Eat or Drink

Do not eat or drink anything after midnight, EVEN WATER, unless otherwise instructed to do so.
No chewing gum.

What to Bring to the Hospital

Personal hygiene items (toothbrush, powder, deodorant, etc.); shorts, tops, culottes; well-fitted slippers; and flat shoes or tennis shoes. For safety reasons, **DO NOT** bring electrical items or straight razors. You may bring battery-operated items & cell phones.

You must bring the following to the hospital:

- Your patient GuideBook
- A copy of your advance directives
- Your insurance card, driver's license or photo I.D., and any co-payment required by your insurance company
- For safety reasons, DO NOT bring electrical items or straight razors.

Special Instructions

You will be instructed by your physician about medications, skin care, showering, etc.

- **DO NOT take medication for diabetes on the day of surgery**
- **Please leave jewelry, valuables, and large amounts of money at home**
- **Makeup must be removed before your procedure**
- **Nail polish should be removed**
- **You may need to bathe with a special soap before surgery. An instruction sheet will be provided. Your surgeon may recommend this to reduce the amount of germs on your skin prior to surgery.**

Preoperative Checklist

Preoperative Exercises, Goals, and Activity Guidelines

Exercising Before Surgery

It is important to be as fit as possible before undergoing a total knee replacement. Always consult your physician before starting a preoperative exercise plan. This will make your recovery much faster. Eleven exercises are shown here that your physician may instruct you to start doing now and continue until your surgery. You should be able to do them in 15–20 minutes and it is typically recommended that you do all of them twice a day. Consider this a minimum amount of exercise prior to your surgery.

Also, remember that you need to strengthen your entire body, not just your leg. It is **very important** that you strengthen your arms by doing chair push-ups (exercise #8) because you will be relying on your arms to help you get in and out of bed, in and out of a chair, walk, and to do your exercises postoperatively.

Stop doing any exercise that is too painful.

Preoperative Knee Exercises

(See the following pages for descriptions:)

1. Ankle pumps	20 reps.	2 times/day
2. Quad sets (knee push-downs)	20 reps.	2 times/day
3. Gluteal sets (buttock squeezes)	20 reps.	2 times/day
4. Abduction and adduction (slide leg out and in)	20 reps.	2 times/day
5. Heel-slides (slide heel up and down)	20 reps.	2 times/day
6. Short arc quads	20 reps.	2 times/day
7. Straight Leg Raises	20 reps.	2 times/day
8. Armchair Push-Ups	20 reps.	2 times/day
9. Standing Heel/Toe Raises	20 reps.	2 times/day
10. Standing Knee Flexion	20 reps.	2 times/day
11. Sitting Knee Flexion	20 reps.	2 times/day
12. Extension Stretch	5-10 minutes	2 times/day

Preoperative Checklist

Total Knee Replacement Exercise Program
All exercises to be performed 20 repetitions --SLOWLY

1. Ankle Pumps

Gently point toes up towards your nose and down towards the surface. Do both ankles at the same time or alternating feet. Perform slowly.

Coach's Note: Perform throughout the day-10/hr while awake.

2. Quad Sets

Slowly tighten thigh muscles, pushing knees down into the surface. Hold for 10 count.

Coach's Note: Look/feel for the muscle above the knee to contract. As strength improves, the heel comes slightly off the surface.

3. Gluteal Sets

Squeeze the buttocks together as tightly as possible. Hold for a 10 count.

Coach's Note: Patient can place hands on Right and Left gluteal (buttocks) area and feel for equal muscle contractions.

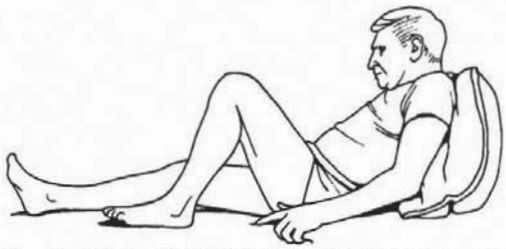
4. Abduction and Adduction

Slide leg out to the side. Keep kneecap pointing toward ceiling. Gently bring leg back to pillow. May do both legs at the same time.

Coach's Note: Perform slowly with 5 count in and 5 count out.

5. Heel slides

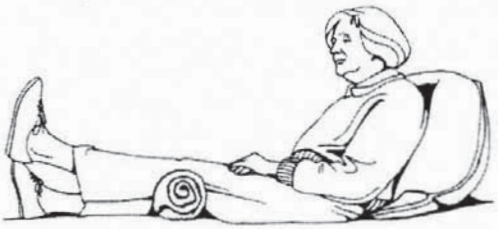
Bend knee and pull heel toward buttocks. Assist with theraband for increased knee bend.



Coach's Note: Patient should actively pull the heel up. Upon reaching maximum bend, additional stretch can be achieved by pulling foot with theraband.

6. Short Arc Quads

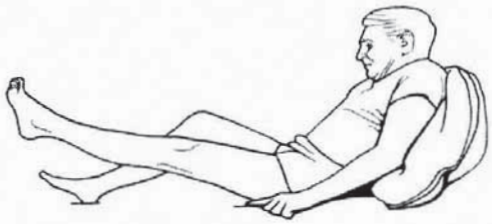
Place a large can or rolled towel (about 8"diameter) under the leg. Straighten leg, keeping knee on the roll. Retighten at top; hold straight for 5 count.



Coach's Note: Work for full extension (straightening) of the knee. Assist with hand under heel, encouraging to lift the foot from the hand..

7. Straight Leg Raises

Bend good knee, securing heel in surface. Keep affected leg as straight as possible and tighten muscles on top of thigh. Slowly lift straight leg 10 inches from the surface and hold for 2 seconds. Lower it slowly, keeping the muscle tight.



Coach's Note: Make sure the straight leg is maintained and the knee does not bend with the lift. Go slowly. If needed, put hand under foot as in #6.

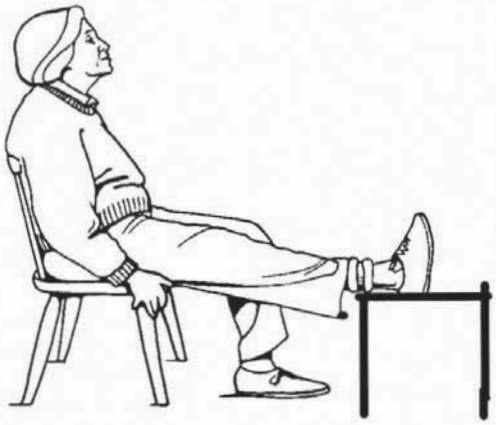
Preoperative Checklist

Total Knee Replacement Exercise Program
All exercises to be performed 20 repetitions --SLOWLY

8. Sitting Knee Flexion
Keeping feet on floor, slide foot of operated leg backward, bending knee. Hold for 10 count.
DO 15 QUALITY REPETITION

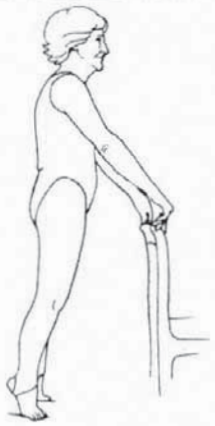
Coach's Note: Each time bend to the point of pain and then a little more. Slide feet underneath chair, keeping hips on chair. With foot planted, move bottom forward for final stretch. Hold for 10 seconds.

9. Extension Stretch
Prop foot of operated leg up on chair. Put a roll under your ankle. Put 5 pounds on top of the knee. Sit back and try to relax. You may apply ice at the same time. NOTE: WHEN SITTING FOR ANY LENGTH OF TIME, PROP YOUR FOOT AS SHOWN.
DO NOT SIT WITH YOUR KNEE BENT



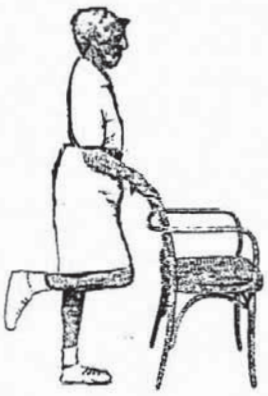
10. Standing Heel/Toe Raises:
Holding on to an immovable surface. Rise up on toes slowly for a 5 count. Come back to foot flat and lift toes from floor.

Coach's note: When lifting up, do not lean backward.



11. Standing Knee Flexion:
Holding on to an immovable surface, bend the involved leg up behind you. Straighten to a full stand, with weight on both legs.

Coach's note:
The tendency is for the hip to come forward as the knee is bent. Encourage a straight line from the shoulder to knee.



Stair/Step Training:

1. The "good" (non-operated) leg goes **UP** first.
2. The "bad" (operated) leg goes DOWN first.
3. The cane stays on the level of the operated leg.

Resting positions:

1. No pillows under knees.
2. Lie flat on your back in bed.
3. Do not sit with your knee bent for prolonged periods – see #9

Hospital Care

Day of Surgery — What to Expect

On the Same Day Surgery Unit patients are prepared for surgery. This includes starting an IV and scrubbing your operative site. An anesthesiologist will interview you before you are taken 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 may 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. Most of the discomfort occurs the first 12 hours following surgery, so during this time, you will be receiving pain medication to help you remain as comfortable as possible. You most likely will get out of bed and sit in the recliner (with assistance) the afternoon or evening of surgery. **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 "Knee Knews," 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 7:30 a.m. and seated in a recliner in your room. Your surgeon will visit you in the morning. The physical therapist may assess your progress and get you walking with either crutches or a walker. Intravenous (IV), and/or injectable pain medication should be stopped and you may begin oral medication. Group therapy typically begins in the morning. Occupational therapy may begin, if needed. Your coach is encouraged to be present as much as possible. Visitors are welcome, preferably late afternoons or evenings.

After Surgery — Day Two and Discharge Day

On day two after surgery you will continue to be helped out of bed early and dressed in the loose clothing you brought to the hospital. Shorts and tops are usually best; long pants are restrictive. Group therapy may start around 9:00 a.m. It would be helpful if your coach participates in group therapy. At about 1:00 p.m. you will have a second group therapy session. You may begin walking stairs on this day.

Postoperative Care

If You are Going Directly Home

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. Most patients go directly to outpatient physical therapy. If the patient requires home health services, the hospital will arrange for this.

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 a non-prescription pain reliever. You may take two extra-strength Tylenol® Analgesic in place of your prescription medication up to four times per day.
- Change your position at least every 45 minutes throughout the day.
- Use ice for pain control. Applying ice to your affected joint will decrease discomfort and swelling. Be sure to use it before and after your exercise program. You may receive a knee-wrap with gel-packs, or 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.
- Use of Heat Following Surgery – See Appendix, page 44.

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 promotes constipation. Use stool softeners or laxatives, if necessary. Senna-S is an over-the-counter combination tablet that contains a mild laxative and stool softener.

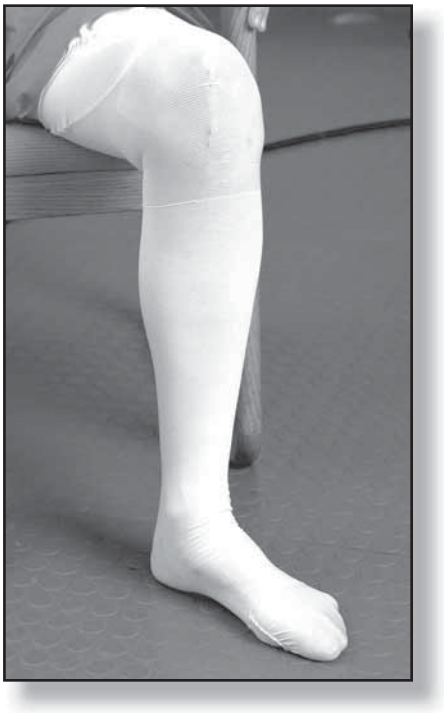
Blood Thinners

You may be given a blood thinner to help avoid blood clots in your legs. You will need to take it for three to six weeks depending on your individual situation. Be sure to take as directed by your surgeon. If you are taking Coumadin, the amount you take may change depending on how much your blood thins. Therefore, it will be necessary to do blood tests once or twice weekly to determine this. See discharge blood thinner instructions (appendix).

Postoperative Care

Stockings

You will be asked to wear special stockings. These stockings are used to help compress the veins in your legs. This helps to 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 four weeks after surgery.

Caring For Your Incision

- Keep your incision dry.
- Keep your incision covered with a light dry dressing until your staples are removed, usually 5–10 days. Once the staples are removed, you will have steri-strips over your incision. Do not pull the steri-strips off! Over time they will dry and fall off.
- After showering, apply a dry dressing.
- 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 if you feel warm or sick. Call your surgeon if it exceeds 100.5° F.

Postoperative Care

Dressing Change Procedure

1. Wash hands.
2. Open all dressing change materials (Opsite dressing, Betadine® swab if indicated).
3. Remove stocking and old dressing.
4. Inspect incision for the following:
    - increased redness
    - increase in clear drainage
    - yellow/green drainage
    - odor
    - surrounding skin is hot to touch
5. If Betadine® swab is ordered, take one Betadine® swab and paint the incision from top to bottom. Then turn the swab over and paint the incision from bottom to top. Use remaining swab to paint the drain site.
6. Bend your knee slightly.
7. Pick up opsite dressing by one corner and lay over incision. Be careful not to touch the inside of the dressing that will lie over the incision. Press down edges around dressing to form a seal.

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.

Postoperative 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 you take blood thinners 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 Embolus

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

Signs of a pulmonary embolus

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

Prevention of pulmonary embolus

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

Postoperative Care

Total Knee Replacement Postoperative 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

After one to two days days you should be ready for discharge from the hospital. Most joint patients go directly home, but you may be instructed to go to a rehabilitation center for 3–6 days. During weeks one and two of your recovery typical two-week goals are to:

- Continue with walker or two crutches 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.

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

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.

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.

In

Out

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.

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.

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. Step forward with the non-surgical leg.
4. NOTE: Take small steps. **DO NOT** take a step until all four walker legs are flat on the floor.

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

Personal Care

Using a "reacher" or "dressing stick."

Putting on pants and underwear:

1. Sit down.
2. Put your surgical leg in first and then your non-surgical leg. Use a reacher or dressing stick to guide the waist band over your foot.
3. Pull your pants up over your knees, within easy reach.
4. Stand with the walker in front of you to pull your pants up the rest of the way.

Taking off pants and underwear:

1. Back up to the chair or bed where you will be undressing.
2. Unfasten your pants and let them drop to the floor. Push your underwear down to your knees.
3. Lower yourself down, keeping your surgical leg out straight.
4. Take your non-surgical leg out first and then the surgical leg.

A reacher or dressing stick can help you remove your pants from your foot and off the floor.

Reacher or Dressing Stick

How to use a sock aid:

1. Slide the sock onto the sock aid.
2. Hold the cord and drop the sock aid in front of your foot. It is easier to do this if your knee is bent.
3. Slip your foot into the sock aid.
4. Straighten your knee, point your toe and pull the sock on. Keep pulling until the sock aid pulls out.

If using a long-handled shoehorn:

1. Use your reacher, dressing stick, or long-handled shoehorn to slide your shoe in front of your foot.
2. Place the shoehorn inside the shoe against the back of the heel. Have the curve of the shoehorn match the curve of your shoe.
3. Lean back, if necessary, as you lift your leg and place your toes in your shoe.
4. Step down into your shoe, sliding your heel down the shoehorn.

NOTE: Wear sturdy slip-on shoes, or shoes with Velcro closures or elastic shoe laces. DO NOT wear high-heeled shoes or shoes without backs.

Sock Aid

Postoperative 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. The seat should be a minimum of 18 inches from the floor.
- Rise slowly from either a sitting or lying position to avoid getting light-headed.
- Do not lift objects over 10 pounds for the first three months and then only with your surgeon's permission.

Postoperative 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

- Take antibiotics one hour before you have dental work or other invasive procedures.
- Although the risks are very low for postoperative 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.
- Get a card from your surgeon that states you had a joint replacement. Carry the card with you, as you may set off security alarms at airports, malls, etc.
- When traveling, stop and change positions hourly to prevent your joint from tightening.
- See your surgeon yearly unless otherwise recommended.

(Lifetime Follow-Up Visits—see appendices).

What to Do for Exercise

Choose a Low Impact Activity

- Recommended exercise classes
- Home program as outlined in Patient 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.

Coach's Checklist – Are You Ready for Discharge Today?

- ❑ **Blood Thinners:**
  - Aspirin
  - Coumadin – Monitoring, dosing, precautions
- ❑ **Dressing Changes**
- ❑ **TED Hose:**
  - How to put on
  - How often to remove, and for how long
- ❑ **Signs and Symptoms:**
  - Infection
  - Blood Clots
- ❑ **Incentive Spirometer: How to use and how often**
- ❑ **Assisting the patient:**
  - To get in and out of bed
  - Going up and down stairs
- ❑ **The Exercise Program to Follow at Home**
- ❑ **Equipment for Home**
- ❑ **Therapy Arrangements**

Appendix

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

Anesthesia

Who are the anesthesiologists?

The Operating Room and Post Anesthesia Care Unit (PACU) at the hospital are staffed by Board Certified and Board Eligible physician anesthesiologists. Each member of the service is an individual practitioner with privileges to practice at this hospital.

What types of anesthesia are available?

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.

Will I have any side effects?

Your anesthesiologist will discuss the risks and benefits associated with the different anesthetic options as well as any complications or side effects that can occur with each type of anesthetic. Nausea or vomiting may be related to anesthesia or the type of surgical procedure. Although less of a problem today because of improved anesthetic agents and techniques, these side effects continue to occur for some patients. Medications to treat nausea and vomiting will be given if needed. The amount of discomfort you experience will depend on several factors, especially the type of surgery. Your doctors and nurses can relieve pain with medications. Your discomfort should be minimal, but do not expect to be totally pain-free. The staff will teach you the pain scale (0–10) to assess your pain level.

What will happen before my surgery?

You will meet your anesthesiologist immediately before your surgery. Your anesthesiologist will review all information needed to evaluate your general health. This will include your medical history, laboratory test results, allergies, and current medications. With this information, the anesthesiologist will determine the type of anesthesia best suited for you. He or she will also answer any further questions you may have.

Appendix

Anesthesia (continued)

You will also meet your surgical nurses. Intravenous (IV) fluids will be started and preoperative medications may be given, if needed. Once in the operating room, monitoring devices will be attached such as a blood pressure cuff, EKG, and other devices for your safety. At this point, you will be ready for anesthesia. If you would like to speak to your anesthesiologist before you are admitted to the hospital, this can be arranged through the Total Joint Care Coordinator.

During surgery, what does my anesthesiologist do?

Your anesthesiologist is responsible for your comfort and well-being before, during, and immediately after your surgical procedure. In the operating room, the anesthesiologist will manage vital functions, including heart rate and rhythm, blood pressure, body temperature, and breathing. The anesthesiologist is also responsible for fluid and blood replacement when necessary.

What can I expect after the operation?

After surgery, you will be taken to the Post Anesthesia Care Unit (PACU) where specially trained nurses will watch you closely. During this period, you may be given extra oxygen and your breathing and heart functions will be observed closely.

May I choose an anesthesiologist?

Although most patients are assigned an anesthesiologist, you may choose one based on personal preference or insurance considerations. If you have questions about your insurance coverage or medical plan participation by the anesthesiologist, please contact your insurance company for guidance. Requests for specific anesthesiologists should be submitted in advance through your surgeon's office for coordination with the surgeon's availability.

Appendix

Blood Thinners – If You Are Taking Coumadin

Monitoring the dosage after patient is discharged from the hospital

HOME — If you are discharged to home with home health services, the home health nurse will come out to draw the prothrombin (PT/INR) time. These results are called to the surgeon who will call you to adjust your dose.

If you **DO NOT** utilize home health nursing, then you will have to go to an outpatient medical lab and have the prothrombin (PT/INR) time drawn there. These arrangements are coordinated by the nursing coordinator at the Center for Joint Replacement. The surgeon will obtain the results and call you to adjust your blood thinners dose.

SUB-ACUTE — If you are transferred to sub-acute, the monitoring is usually done two times a week. The physician caring for you will adjust the blood thinners dose as necessary. When you are discharged from sub-acute or home health, outpatient blood monitoring will be arranged for you.

Use of Heat Following Surgery

Benefits

- **Continue to use ice for the first 3-4 days after surgery.**
- **You may begin using heat after 3-4 days.**
- Heat increases healing blood flow to the site of injury, which helps damaged tissue repair itself faster. Heat also helps loosen up tight muscle fibers, so it is especially beneficial in a rehabilitation program when applied prior to stretching and exercising. Heat can also relieve muscle spasms and pain.

Superficial Heat

- **Moist heat packs or dry heating pads are often used to provide superficial heat to the injured area with the primary goal of reducing pain and inflammation. Moist heat packs also alleviate muscle spasm and promote overall relaxation. The superficial heat increases circulation to the site of injury. Superficial heat treatments are limited to a depth of about 1 to 2 cm.**

Hot Packs and Heat Therapy

- **Heat therapy includes vasodilation: drawing blood into the target tissues. Increased blood flow delivers needed oxygen and nutrients, and removes cell wastes. The warmth decreases muscle spasm, relaxes tense muscles, relieves pain, and can increase range of motion.**
- **Hot packs in any form should always be wrapped in a towel to prevent burns. Punctured commercial hot packs should be immediately discarded, as the chemical agent/gel will burn skin.**
- Heat therapy should be administered 20 minutes on and 20 minutes off affected area 4-5 times a day or as desired.

Appendix

The Importance of Lifetime Follow-Up Visits

Over the past several years, orthopedic surgeons have discovered that many people are not following up with their surgeons on a regular basis. The reason for this may be that they do not realize they are supposed to or they do not understand why it is important.

So, when should you follow up with your surgeon? These are some general rules:

- Every year, unless instructed differently by your physician.
- Anytime you have mild pain for more than a week.
- Anytime you have moderate or severe pain.

There are two good reasons for routine follow-up visits with your orthopedic surgeon:

1. If you have a cemented knee, we need to evaluate the integrity of the cement. With time and stress, cement may crack. You probably would be unaware of this happening because it usually happens slowly over time. Seeing a crack in cement does not necessarily mean you need another surgery, but it does mean we need to follow things more closely.

   Why? Two things could happen. Your knee could become loose and this might lead to pain. Or, the cracked cement could cause a reaction in the bone called osteolysis, which may cause the bone to thin out and cause loosening. In both cases you might not know this for years. Orthopedists are continually learning more about how to deal with both of these problems. The sooner we know about potential problems, the better chance we have of avoiding more serious problems.

2. The second reason for follow-up is that the plastic liner in your knee may wear. Little wear particles combine with white blood cells and may get in the bone and cause osteolysis, similar to what can happen with cement. Replacing a worn liner early and grafting the bone can keep this from worsening.

   X-rays taken at your follow-up visits can detect these problems. Your new X-rays can be compared with previous films to make these determinations. This should be done in your doctor's office.

   We are happy that most patients do so well that they do not think of us often. However, we enjoy seeing you and want to continue to provide you with the best care and advice. If you are unsure how long it has been or when your next visit should be scheduled, call your doctor. We will be delighted to hear from you.

Notes

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