

Patient Name: _____

Class Date: _____

Preoperative Teaching Class Date

Location: North Memorial Medical Center Robbinsdale
Atrium 7th floor- Joint Replacement Center

Surgery Date: _____

Location: Patient Care Center-**Atrium 1st floor**

Arrival Time Day of Surgery: _____

For arrival time to North Memorial Medical Center
3 days prior to surgery please call

(763) 581-4585

If you go to voice mail, it will say you have reached the
“Pre-admission and culture team” this is the correct number.
Leave your name, call back number and that you need your
admission time, for the day of surgery.

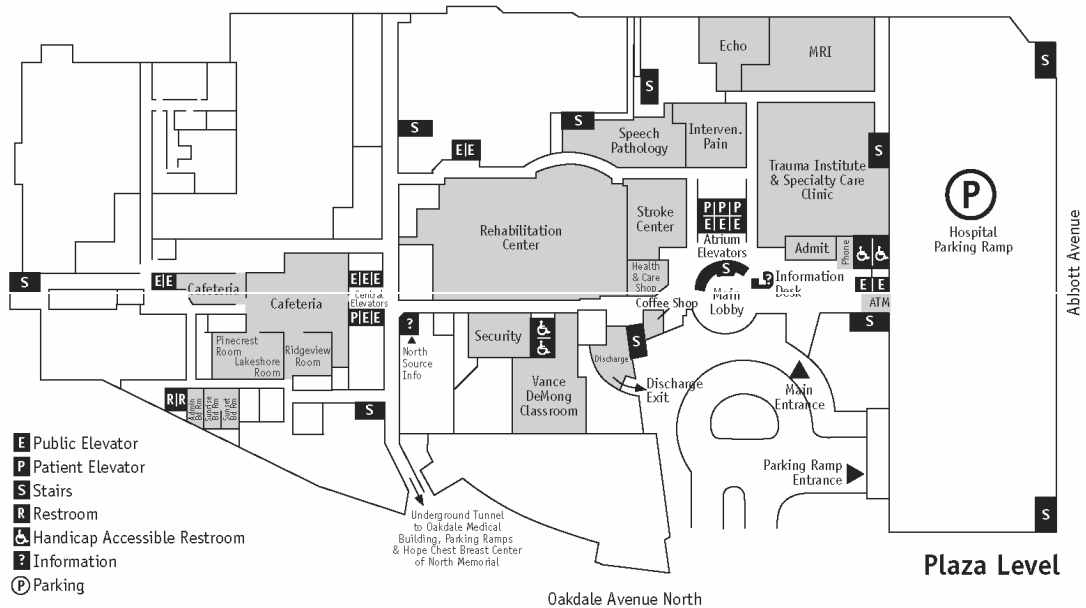
Post Surgery Follow Up Appointment Date

Please Bring This Book with You To:

- Your pre-operative teaching class
- The hospital on admission
- All physical therapy visits after surgery

For Questions, Contact the **Joint Replacement Care Coordinator: 763-581-7712**

Getting to the Joint Replacement Center



Welcome to North Memorial! The Joint Replacement Center is located on the 7th floor of the Atrium. For the **pre operative class**, drivers may drop off patients at the main entrance before parking their vehicle. If you need assistance getting to our unit, please alert someone at the main information desk at the main entrance of the hospital.

1. Enter the hospital parking ramp, located off Oakdale Ave. N.
2. Take the ramp elevators to the Plaza Level (pictured above) and enter the hospital through the atrium.
3. Proceed to the information desk.
4. To the right of the information desk are three elevators
5. Take an elevator to the 7th floor where one of our staff can assist you.

On the day of surgery go to the Patient Care Center, located on the 1st floor of the Atrium. Do not go to the Joint Replacement Center.

Table of Contents

Clinical Diary

Using the Clinical Diary - Instructions for Professionals Pgs. 5-6

General Information

Welcome	<u>Pg. 7</u>
Purpose of the Guidebook	<u>Pg. 9</u>
Overview - Center for Joint Replacement	<u>Pg. 10</u>
Answers to Frequently Asked Questions	<u>Pg.11</u>

Preoperative Checklist

What to do Prior to Preoperative Class	Page
• Make an appointment with your primary physician	<u>19</u>
• Fill out History and Physical form	<u>19</u>
What to do prior to Surgery	
• Register/Attend Preoperative Class	<u>18</u>
• Review What to Bring to the Hospital	<u>22</u>
• Start Preoperative Exercises	<u>26</u>
• Review “Exercise Your Right” (appendix)	<u>74</u>
What to do Ten to Fourteen Days Before Surgery- Page	
• Stop Medications That Increase Bleeding	<u>23</u>
• Prepare Your Home	<u>23</u>
What to do Three Days Prior to Surgery	
• Verify arrival time for surgery	<u>1</u>
What to do the Day Before Surgery	
• Nothing to Eat or Drink After Midnight	<u>24</u>

Table of Contents

Hospital Care

What to do the Day of Surgery —(read these items before your surgery)	<u>Pg. 34</u>
What to Expect during your hospital stay	<u>Pg. 35</u>
If You Are Going Directly Home	<u>Pg. 36</u>
If You Are Going to a Sub-Acute Rehab Facility	<u>Pg. 36</u>

Postoperative Care

Caring for Yourself at Home

- Control Your Discomfort Pg. 38
- Blood Thinners Pg. 40, 69-70
- Caring for Your Incision Pg. 39
- Recognizing and Preventing Potential Complications Pg. 40-41
- Postoperative Exercises, Goals, and Activity Guidelines. Pgs. 43-68
- Do's and Don'ts for the Rest of Your Life Pg. 67

Discharge

Anticoagulation at Discharge	<u>Pgs. 69-70</u>
Tips for Physical Therapy at Home	<u>Pg. 73</u>

Appendix

Exercise Your Right (Living Will)	<u>Pg. 74</u>
Blood Transfusions and You—Know Your Options	<u>Pg. 75</u>
Anesthesia	<u>Pgs. 76-77</u>
Lifetime Follow-up Visits	<u>Pg. 78</u>
Phone Directory	<u>Pg. 79</u>
Medication Documentation Form	<u>Pg. 80</u>

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		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

Physician & Physical Therapist Use Only

Home Health/Outpatient Physical Therapist/Sub-Acute Physical Therapist								
P.T. Name:				Phone:		Weeks to:		
P.T. Name:				Phone:		Weeks to:		
P.T. Name:				Phone:		Weeks to:		
P.T. Name:				Phone:		Weeks to:		
		A.A.R.O.M.		P.R.O.M.		Gait	Amb.	
Post-Op Week	Date	Extension in Supine	Flexion in Sitting	Extension in Supine	Flexion in Sitting	Device	Distance	Stair Skills
2								
3								
4								
5								
6								

Please record once a week with your name and phone number.

Welcome

Thank you for choosing North Memorial Medical Center and The North Memorial Joint Replacement Center for the implementation and care of your new prosthetic joint. We are dedicated to providing you with the highest quality of care, with the goal of decreasing your level of pain and increasing your level of activity, resulting in improved independence.

The North Memorial Joint Replacement Center is offering an exciting and innovative way of caring for the total joint patient. You will be enrolled in a program that will follow you throughout the course of your treatment, from the time your surgery is scheduled through your post operative recovery period.

The North Memorial Joint Replacement Team is a dedicated team of professionals comprised of physicians, physical and occupational therapists, nurses, nursing assistants, social workers, and secretaries. Our volunteer, pharmacy and nutrition services will also be active participants in your care, along with the Joint Center Coordinator, who will be a valuable resource to you throughout the surgical process.

We believe that much of your success depends on you. We encourage you to be active participants in your recovery process. We will count on you to help us improve care by participating in follow-up phone surveys and a reunion breakfast.

We hope this guidebook will help answer many of the questions you may have along the way. If you have questions or concerns that are not covered in this guidebook, please don't hesitate to call. Again, we thank you for choosing North Memorial Medical Center and The North Memorial Joint Replacement Center.

General Information

guidebook
For Knees



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, physician's assistant, 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 Joint Replacement Center

The Joint Replacement Center is unique. It is a dedicated center within the hospital. Patients have their surgery on Monday through Friday and typically return home after a 2 night stay in the hospital.

Features of the Joint Concepts® program include:

- Nurses and therapists and staff 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 comprehensive patient guide for you to follow from six weeks pre-op until three months post-op and beyond
- Public education seminars about hip and knee pain
- Followup reunion breakfast 3-6 months after surgery



Frequently Asked Questions About Total Knee Surgery

We are glad you have chosen the Joint Replacement Center 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 Joint Center 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.

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?

Total knee replacement patients are not usually asked to donate blood. For more information read "Blood Transfusions – Know Your Options" in The GuideBook appendix.

How long will I be incapacitated?

You will probably get out of bed the day of your surgery. 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 2 days after surgery. There are several goals that must be achieved before discharge.

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 for two or three weeks. You may also stay at a sub-acute facility following your hospital stay, depending on your insurance and level of independence.

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 Joint Center Coordinator will guide you through the program and make arrangements for post-op care. The coordinator's role is described in the GuideBook along with a phone number.

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 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. Most patients will be given IV pain medication the day of surgery. You will begin oral pain medication on the morning of the first post operative day.

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 3–4 weeks we do recommend that you use a walker, a cane, or crutches. The Physical Therapist can arrange for them if necessary.

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 and stay there for three to seven days. Social Service or the Joint Center 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 benefits.

Will I need help at home?

Yes, 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 and you have Home Care Coverage, the Joint Center Coordinator can arrange for a home health care nurse to come to your house as needed. Family members or friends need to be available to help if possible. Having the laundry done, house cleaned, yard work completed, clean linens put on the bed, and single portion frozen meals can 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 Joint Center 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. You must be off narcotic pain medication before you can drive. 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.

How often will I need to be seen by my doctor following the surgery?

You will be seen for your first postoperative 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, twelve 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 discouraged.

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.

What is the approximate weight of my prosthesis?

Approximately one pound.

Will I need antibiotics prior to dental work and future operations?

Yes. Contact your surgeon prior to dental appointments or surgeries.

Preoperative Checklist

Contact Your Insurance Company

Before surgery, you will need to contact your insurance company to find out if a pre authorization, a pre-certification, a second opinion, or a referral form is required. It is very important to make this call because failure to clarify these questions may result in a reduction of benefits or delay of surgery.

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.

If there have been any changes in your policy prior to surgery, please notify the Joint Center Coordinator.

Insurance Information

I am having joint replacement surgery. If my orthopedic surgeon recommends one of the following, what is my coverage?

Nursing Home

1. What is my coverage? _____

2. Transportation coverage? _____

3. What nursing homes can I go to? _____

4. Put your name on a waiting list at 3 facilities.
 1. _____
 2. _____
 3. _____

Home Care

1. What is my coverage for home nursing and physical therapy? _____

2. We can set up home therapy while you are in the hospital.

Outpatient Therapy

1. What outpatient physical therapy clinics can I attend? _____

2. **Schedule appointments prior to coming into the hospital. We will give you orders at the time of your discharge.**

Pre-Register

After your surgery has been scheduled, you might receive a call for pre-registration information. If you have been a recent patient at North Memorial, it is possible we may have this registration information already on file, and you would not receive a call. If you are contacted, you will be asked to have the following information ready:

- Patient's full legal name and address, including county
- Home phone number
- 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 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

Preoperative Class

A special class is held weekly for patients scheduled for joint surgery. **The Surgery Scheduler in the surgeon's office will schedule this class for you, prior to surgery.** You will only need to attend one class. 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. If it is not possible for you to attend, please inform the Joint Center Coordinator. The outline of the class is as follows.

- Pre and Post operative expectations
- Preparing for surgery
- Role of your "Coach"/Caregiver
- Review Your Preoperative Exercises
- Review what it means to be a hospitalized patient following joint replacement surgery
- Review discharge options- Nursing Home, Home Care or Outpatient services
- Questions and Answers

Preoperative Checklist

Obtain Medical Clearance

After you are scheduled for your joint surgery, you will need to contact your primary care physician to schedule a history and physical for preoperative medical clearance. This history and physical needs to be done **within 30 days** of your scheduled surgery date. If following your history and physical, there is a medical condition that could possibly delay or prevent your surgery, please have your primary care physician notify your Orthopedic Surgeon as soon as possible.

Please be sure to address which medications you should be taking the morning of surgery, and which medications should/can be held.

If you are a diabetic, be sure to discuss how your diabetic medications should be taken, the morning of surgery

This would also be an appropriate time to discuss a Living Will-Advanced Directive-Health Care Directive(see page 74), if you do not already have one established.

Preoperative Checklist

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 an advance directive, please bring a copy to the hospital on the day of surgery.**

Urinalysis

You may need a urinalysis (UA) done during your preoperative history and physical. If the urinalysis confirms a urinary tract infection, please notify your orthopedic surgeon, surgery scheduler, or Joint Care Coordinator immediately.

Billing for Hospital Services

After your procedure, you will receive separate bills from the surgeon, anesthesiologist, the hospital, the radiology and physical therapy. If your insurance carrier has specific requirements regarding participation status, please contact your carrier.

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 an exercise program before surgery.** See page 29

Preoperative Checklist

What to bring to the hospital

1. For the day after surgery bring loose shorts with an elastic waist so they can be easily pulled over surgical dressings, and a loose short sleeved tee shirt because you might still have an IV.
2. Bring along three similar outfits, you can bring shorts or sweat pants. Once again, we stress loose fitting clothing.
3. Four (4) pair of underwear.
4. Comfortable, loose fitting sleepwear.
5. Toiletries (deodorant, toothpaste, toothbrush, comb and/or brush).
6. You will not need a robe, slippers.
7. Tennis shoes work best for discharge. "Slip on" type shoes such as sandals, flip-flops, or slip on dress shoes are not recommended

You should also bring the following to the hospital:

- Your patient Guidebook
- A copy of your advance directives, if you are submitting one
- Your insurance card, driver's license or photo I.D., and any co-payment required by your insurance company
- Your incentive spirometer if you were issued one at the pre operative class



Incentive Spirometer

Preoperative Checklist

Ten to Fourteen Days Before Surgery

Stop Medications That Increase Bleeding

Ten to fourteen days before surgery, stop medications such as **aspirin**, **vitamin E**, and **fish and flaxseed oils**. These medications may cause increased bleeding at the time of surgery.

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.



Blood Thinners

If you are taking a blood thinner such as **Coumadin (Warfarin)**, **Plavix**, **Xarelto** or **Pradaxa** you will need special instructions for stopping the medication. Your primary care physician will instruct you about what to do with blood thinners and your other medications.

Diabetic Medications

If you are taking diabetic medications, be sure to get instructions from your primary medical physician on how to dispense your diabetic medications on the morning of surgery.

3 Days before surgery

Stop taking Anti-Inflammatory medications

3 days prior to surgery, stop taking all anti-inflammatory medication such as **Motrin (Ibuprofen)**, **Aleve** and **Naprosyn**.

To reduce concern for post-operative constipation, we recommend starting an “over the counter” stool softener, such as Colace, Miralax or Senekot, a few days prior to surgery

Prior to your procedure a registered nurse will call you, to review your medical history including current medications and allergies.

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. If you are directed to take essential medications the morning of surgery, you may do so with a small sip of water.

The Day of Surgery

You will be asked to come to the hospital at least **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.

Medications

Unless directed differently by your primary care physician these are the only medications you should take the morning of surgery, with only a **small** sip of water:

- Pain Medication
- Heart medication
- Blood pressure Medication
- Seizure Medication
- Heartburn/Acid Reflux medication
- Asthma medications (please bring your inhaler in with you)

Special Instructions

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

- **Please leave jewelry, valuables, and large amounts of money at home**
- **Makeup must be removed before your procedure**
- **Nail polish may be left on**
- **Body Piercings should be removed before surgery**

Contact lenses, glasses, hearing aides and dentures will be removed just before your procedure.

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.

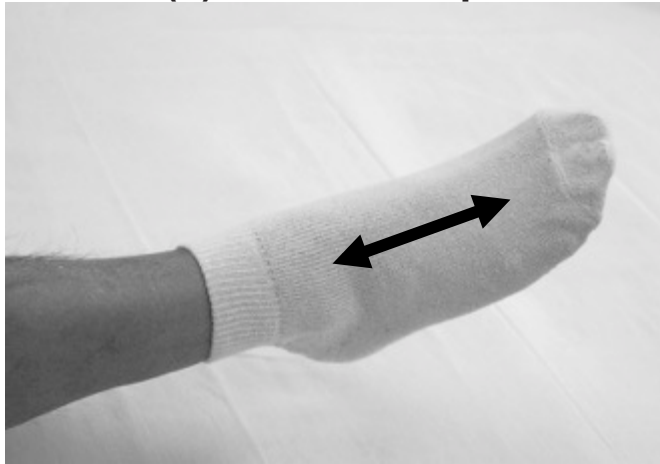
Preoperative Knee Exercises

(See the following pages for descriptions:)

1.	Ankle pumps	30 reps	2 times/day
2.	Quad sets (knee tighteners)	30 reps	2 times/day
3.	Gluteal sets (fanny tighteners)	30 reps	2 times/day
4.	Abduction and adduction (slide heel out and in)	30 reps	2 times/day
5.	Heel-slides (slide heel up and down)	30 reps	2 times/day
6.	Short arc quads (leg kicks)	30 reps	2 times/day
7.	Long arc quads knee extension)	30 reps	2 times/day
8.	Armchair push-ups	30 reps	2 times/day
9.	Seated hamstring stretch	5 reps	2 times/day
10.	Straight leg raises	30 reps	2 times/day
11.	Knee extension stretch	10 minutes	2 times/day

Range of Motion and Strengthening Exercises

(1) Ankle Pumps



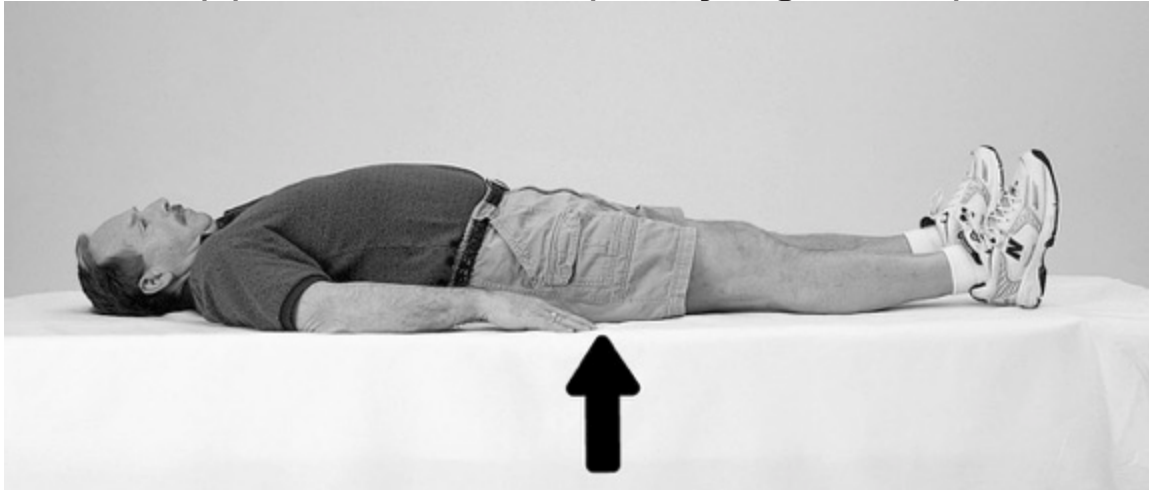
Flex foot. Point toes. Repeat 30 times.

(2) Quad Sets — (Knee Tighteners)



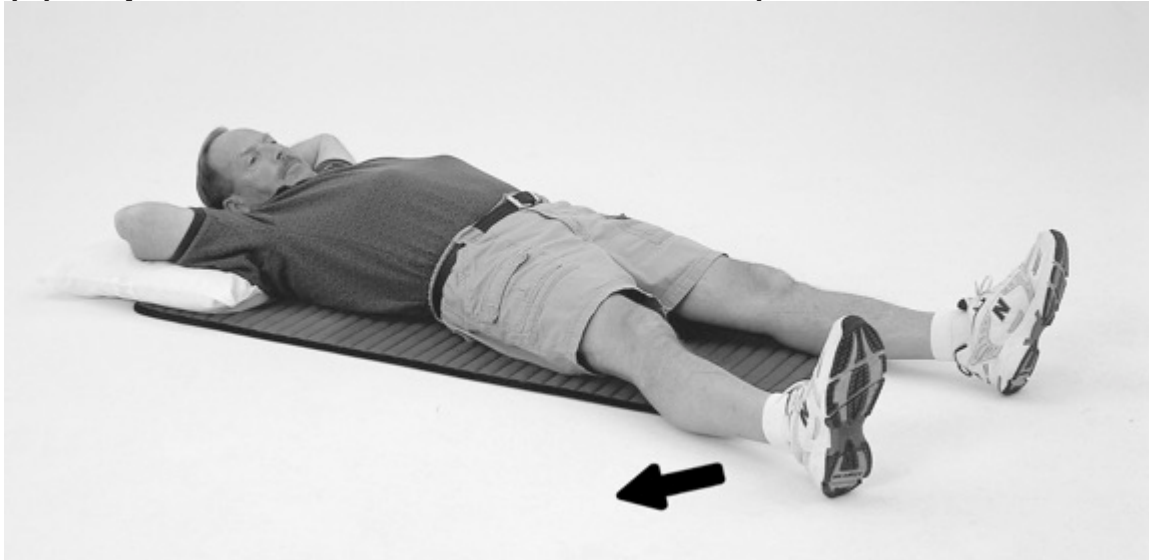
Lie on back, press knee into mat, tightening muscles on front of thigh.
Do NOT hold breath. Repeat 30 times.

(3) Gluteal Sets — (Fanny Tighteners)



Squeeze bottom together. Do NOT hold breath. Repeat 30 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 30 times.

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



Lie on couch or bed. Slide heel toward your bottom. Repeat 30 times.

(6) Short Arc Quads (Leg Kicks)



Lie on back, place towel roll under thigh. Lift foot, straightening knee. Do not raise thigh off roll. Repeat 30 times.

(7) Knee Extension — Long Arc (Knee Extension)



Sit with back against chair. Straighten knee. Repeat 30 times.

(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 30 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 fl at. Lift opposite leg up 12 inches. Keep knee straight and toes pointed up. Relax. Repeat 30 times.

(11) Knee 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 daily.

Day of Surgery — What to Expect

Report to the Patient Care Center, Atrium 1st floor. In the Patient Care Center, patients are prepped for surgery. This includes starting an IV and scrubbing your operative site. Your operating room nurse, as well as your anesthesiologist, may interview you. You should see your surgeon in the Patient Care Center. Prior to surgery, your surgeon will mark your operative extremity with a permanent marker. Your family can be with you in the Patient Care Center.



Recovery Room

Following surgery you will be taken to a recovery area, where you may remain for one to two hours. During this time, pain control will be established, your vital signs will be monitored, and an X-ray may be taken of your new joint.

Joint Center

You will then be taken to the Joint Replacement Center, where a Joint Replacement Center nurse will care for you. Most of the discomfort occurs in the first 12 hours following surgery, so during this time, you will be receiving pain medication through your IV. You will probably get out of 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. It is normal to have some nausea following surgery. Until nausea resolves, you will receive clear liquids; Water, lemon-lime soda, and apple juice.

It is normal for your leg to feel “heavy” and “weak” the first few days following surgery. If you have received a spinal anesthetic, it is common to have diminished sensation in your legs for several hours; this will improve as the spinal wears off.

We will remove your foley catheter at 6:00 am, the first morning after surgery.

Every attempt will be made to help you have a good night sleep, but it is normal to not sleep well the first night of surgery.

Post Op 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. You will be dressed in the loose clothing you brought to the hospital. Shorts usually work best. Your blood sugar will be checked Day one and Day two even if you have not been diagnosed as diabetic. Your surgeon or physician's assistant (if applicable) will visit. Intravenous (IV) pain medication should be stopped and you will begin oral pain medication. Your coach is encouraged to be present as much as possible. On the day and evening shifts, nursing staff will hand off care to the oncoming shift, by doing rounds at the bedside.

Therapy

If you did not have physical therapy the day of surgery, your first physical therapy session will be done in your room sometime between 8:30 -9:30 am. That afternoon at around 1:30 pm, you will begin group therapy. You will walk to group therapy with an assistive device, followed by a recliner/wheelchair. If you are unable to ambulate all the way to group PT, we will escort you there in the wheelchair or recliner.

On days where we have a large number of joint replacement patients, it possible we may have to split patients up in to 2 groups. Patients in the second group would start at approximately 10:30 for the morning session and 2:30 for the afternoon session.

Post op Day Two

On day two after surgery you will again be helped out of bed early and will dress in the loose clothing. Group therapy will start at 9:00 a.m. It would be helpful if your coach participates in group therapy. At about 1:30 p.m. you will have a second group therapy session. You may begin stair training. If you meet your therapy goals, you may be discharged.



Post Op Day Three-if needed

Day three is similar to day two in the morning and you should practice on stairs. You will not need to attend afternoon therapy on this day.

Discharge

Prior to discharge the nurse will review discharge orders and medications. You will be given prescriptions for pain medications. Most pain medicine prescriptions **cannot** be faxed or "called in" to a pharmacy. You should also view a video discussing discharge; this video can be viewed at any time during your hospital stay. It is recommended that your caregiver view this video as well.

Discharge time is 11:00 am

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. If you are going to outpatient physical therapy, these appointments should have been arranged prior to surgery. If you require home health services, the hospital will arrange for this.

If you are going to a Sub-Acute Rehab Facility

The decision to go home or to sub-acute rehab will be made collectively by you, the Joint Center Coordinator, your surgeon, physical therapist, and your insurance company. Every attempt will be made to have this decision finalized in advance but it may be delayed until the day of discharge.

Someone responsible needs to drive you, or the hospital can help you arrange transportation. There might be a fee associated with medical transportation. You should check with your insurance company regarding any possible fees. Your transfer papers will be completed by the nursing staff. Expect to stay 3–5 days, based upon your progress. Upon discharge home, instructions will be given to you by the subacute rehab staff. Take this Guidebook with you.

Please remember that sub-acute stays may need to be approved by your insurance company prior to payment. A patient's stay in a sub-acute rehab facility must be done in accordance with the guidelines established by Medicare. Although you may desire to go to sub-acute when you are discharged, your progress will be monitored by your insurance company while you are in the hospital. Upon evaluation of your progress, you will either meet the criteria to benefit from sub-acute rehab or your insurance company may recommend that you return home with other care arrangements. Therefore, it is important for you to make alternative plans preoperatively for care at home.

In the event sub-acute rehab is not approved by your insurance company, you can go to sub-acute rehab and pay privately. Please keep in mind that the majority of our patients do so well that they do not meet the guidelines to qualify for sub-acute rehab. 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 admission.

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.
- Be sure and have a protective barrier between the ice pack and your skin; a pillow case or towel work well. Never place ice or ice products directly on your skin.
- **The orthopedic surgeons office, does not refill pain medication prescriptions Friday afternoon, Saturday or Sunday. If you feel you are going to run out of pain medication over the weekend, notify your surgeon's office.**
- Based on your condition, the surgeon may change your pain medication when you need your refill, example; if you are taking Oxycodone, they might switch to Vicodin.
- The surgeons do not typically refill prescriptions for Oxycontin if you received one at discharge.

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.

Caring For Your Incision

- Keep your incision dry.
- Keep your incision covered with a light dry dressing
- You may shower after surgery, with a waterproof dressing covering your incision, unless instructed otherwise. After showering, apply a dry dressing. No tub baths for 3 weeks following surgery
- 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 **101.5° F**.

Dressing Change Procedure

1. Wash hands.
2. Open all dressing change materials
3. Remove old dressing.
4. Inspect incision for the following:
 - increased redness
 - increased in clear drainage
 - yellow/green drainage
 - foul odor
 - surrounding skin is hot to touch
5. Pick up dressing pad by one corner and lay over incision. Be careful not to touch the inside of the dressing that will lie over the incision.
6. Place one dressing lengthwise across the incision. If you had a drain following surgery, cover the drain site as well.
7. Tape dressing in place.

Aquacel AG Dressing

Some of you might have a special dressing following surgery called Aquacel AG. If you have an Aquacel AG dressing applied post operatively, you will leave this in place for 7 days. Special removal instructions will be sent with you at discharge. You may shower without covering this dressing. After this dressing is removed, you will need to then cover the incision, until seen by your orthopedic surgeon, on your first follow up visit.

Recognizing & Preventing Potential Complications

Infection

Signs of Infection

- Increased swelling and redness at incision site
- Change in color, amount, and odor of drainage
- Increased pain in hip
- Fever greater than 101.5° F

Prevention of Infection

- Take proper care of your incision as explained.
- **You will need to take antibiotics prior to having dental work or other potentially contaminating procedures.**
- Notify your physician and dentist that you have a joint replacement.

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.

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
- 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
- Coughing up blood
- 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

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 **2** 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. **Do not** sleep with pillow under your knee.
- 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.



Postoperative Exercise Plan

- | | | | |
|----|---|------------|-------------|
| 1. | Ankle Pumps Exercise | 30 reps | 2 times/day |
| 2. | Quad Sets (Knee Tighteners) Exercise | 30 reps | 2 times/day |
| 3. | Gluteal Sets (Fanny Tighteners) Exercise | 30 reps | 2 times/day |
| 4. | Abduction/Adduction (Slide Heels In and Out) Exercise | 30 reps | 2 times/day |
| 5. | Heel Slides (Slide Heels In and Out) Exercise | 30 reps | 2 times/day |
| 6. | Short Arc Quads (Leg Kicks) Exercise | 30 reps | 2 times/day |
| 7. | Straight Leg Raises Exercise | 30 reps | 2 times/day |
| 8. | Seated Knee Flexion Exercise | 30 reps | 2 times/day |
| 9. | Extension Stretch Exercise | 30 minutes | 2 times/day |
- 10–18. **Advanced Exercises to be reviewed by your next physical therapist.**

Weeks Two To Four

Weeks two to four will see you recovering to more independence. Even if you are receiving outpatient therapy you will need to be very faithful to your home exercise program to be able to achieve the best outcome. Your goals for the period are to:

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

Strengthening Exercises

Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day

Additional Comments:

PT _____

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 or single crutch.
- 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 knee had surgery).
- Continue with home exercise program twice a day.

Strengthening Exercises

Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day

Stretching Exercises

_____ (stretch/) _____ times/day
_____ (stretch/) _____ times/day
_____ (stretch/) _____ times/day

Additional Comments:

PT _____

Weeks Six to Twelve

During weeks six to twelve 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 with no cane or crutch 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.



Strengthening Exercises

Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day
Name of exercise _____ reps _____ times/day

Stretching Exercises

_____ (stretch/) _____ times/day
_____ (stretch/) _____ times/day
_____ (stretch/) _____ times/day

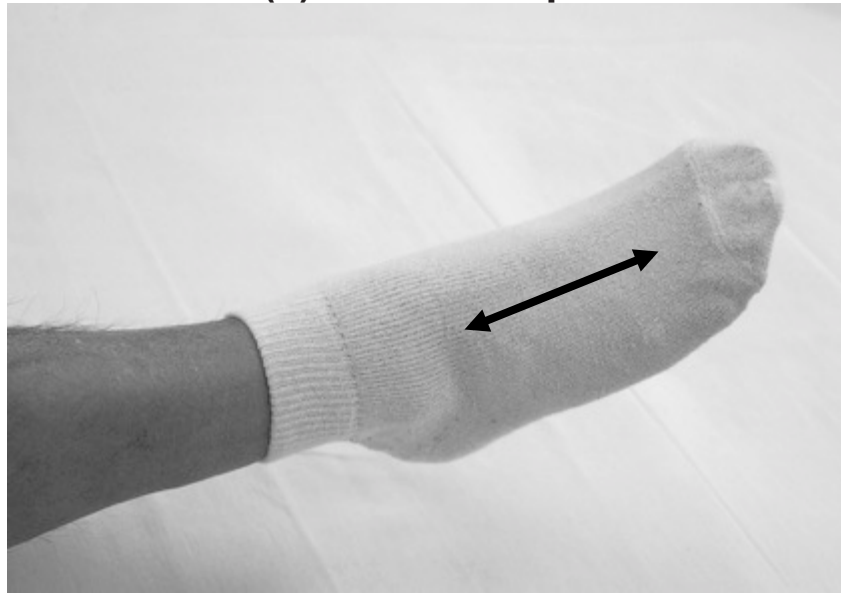
Additional Comments:

PT _____

Home Exercises After Total Knee Surgery

Listed below are two groups of home exercises that are essential for a complete recovery from your surgery. Always consult your physician before starting a home exercise program. The first group focuses on range of motion and flexibility exercises that are important to improving your motion. The second group features strengthening exercises to restore you to full strength. Your therapist will mark which exercises you should be doing. Some exercises you will do in the first two weeks, others during weeks two to four, and still others during weeks four to six and beyond. Exercising should take approximately 20 minutes and should be done twice daily. If you are recovering quickly, it is recommended that you supplement these exercises with others that your therapist recommends.

(1) Ankle Pumps



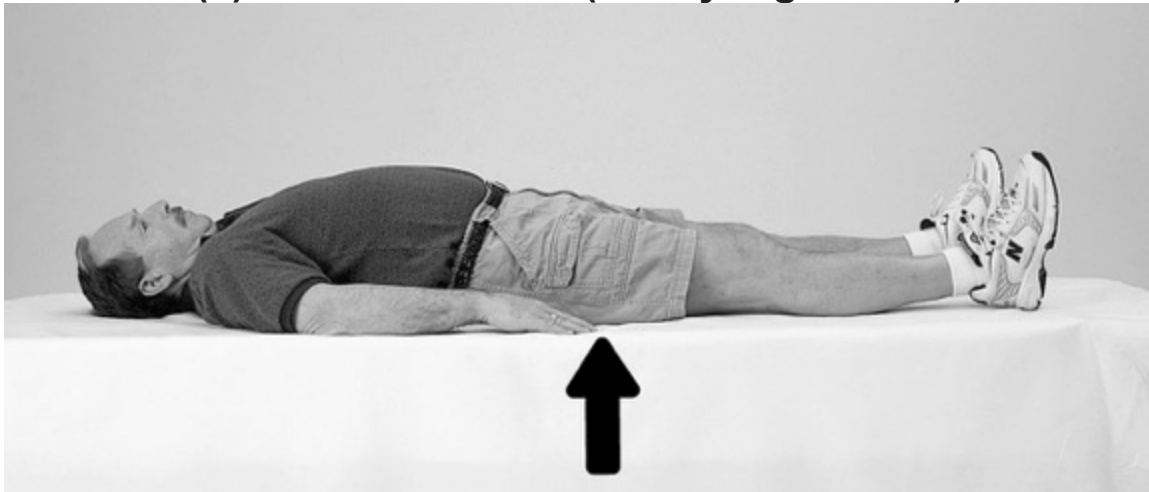
Flex foot. Point Toes. Repeat 30 times.

(2) Quad Sets — (Knee Tighteners)



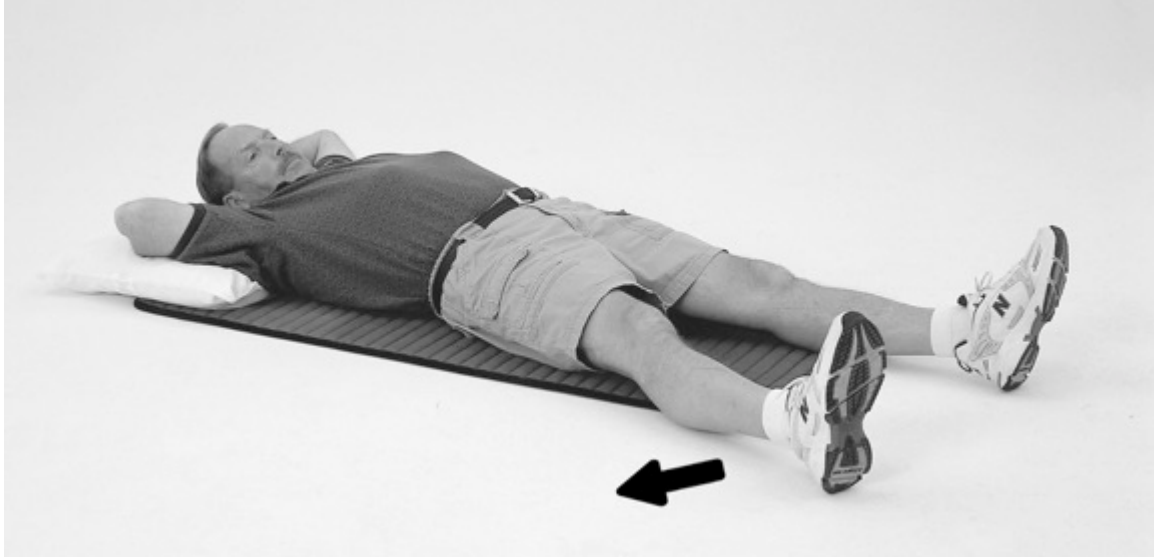
Lie on back, press knee into mat, tightening muscles on front of thigh.
Do NOT hold breath. Repeat 30 times.

(3) Gluteal Sets — (Fanny Tighteners)



Squeeze bottom together. Do NOT hold breath.
Repeat 30 times.

(4) 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 30 times.

(5) Heel Slides — (Slide Heels up and down)



Lie on couch or bed. Slide heel toward your bottom. Repeat 30 times.

(6) Short Arc Quads (Leg Kicks)



Lie on back, place towel roll under thigh. Lift foot, straightening knee. Do not raise thigh off roll. Repeat 30 times.

(7) 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 30 times.

(8) 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 30 times.

(9) 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 30 minutes.

(10) Prone Knee Flexion Stretch



Bring heel toward buttocks as far as possible. If this bothers your back, keep a pillow under your stomach. Repeat 30 times.

(11) 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.

(12) Knee Extension — Long Arc



**Sit with back against chair. Straighten knee.
Repeat 30 times.**

(13) 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.

(14) Ankle Dorsiflexion — Plantar Flexion



Standing, hold on to firm surface. Raise up on toes. Go back on heels.
Repeat 30 times.

(15) Hip Flexion (Marching)



Standing, march in place 30 times.

(16) Single Leg Step-Up



With foot of involved leg on step, straighten that leg. Return. Use a step or book. Height of step will depend on your strength. Start low. You may exercise good leg as well. Repeat 30 times. NOTE: PLEASE DO THESE WITH YOUR THERAPIST FIRST.

(17) 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 or book. Ask therapist how high it should be. Repeat 30 times.

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.

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 operative 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-operative leg to the floor.
3. If necessary, use a leg-lifter to lower your operative 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.

In



Out



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 operative 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 door frame.
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 operative 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.

Walker Ambulation



Stairclimbing

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

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 operative leg out straight.
4. Take your non-surgical leg out first and then the operative 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



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 high stool, 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.

You should avoid any dental procedures for three months following total knee surgery

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 101.5° 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.
- It is important to follow up with your medical doctor if your blood sugar does not return to normal within 1 week after discharge.
- You may set off security alarms at airports. Due to increased airport security and the fact that cards are not government issued, joint replacement cards are no longer distributed to patients.
- 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.



Discharge

Anticoagulation at Discharge

Anticoagulation refers to the process of slowing down the clotting process of your blood after surgery, in hopes of reducing your risk of getting a blood clot. We will discuss several measures we can take to help reduce the risk of getting a blood clot.

Warfarin (Coumadin®)

Warfarin is a commonly used blood thinner that comes in a pill form. You will typically be on Warfarin for 3-6 weeks after surgery, depending on your surgeon, history and activity levels.

- Take daily- at bedtime is preferred.
- Avoid the use of Non-Steroidal Anti-inflammatory medications; Motrin®, Ibuprofen, Naprosyn, Advil®, Aleve® etc.. You may continue taking Tylenol® while on Warfarin.
- You should limit your intake of the following foods while on Warfarin:

cauliflower	kale
scallions (green onions)	turnip greens
peas	broccoli
garbanzo beans (chick peas)	cabbage
asparagus	lettuce
green/herbal teas, coffee	brussel sprouts
soybean and canola oil	liverwurst/beef liver
spinach	

You will need blood a draw, called INR (international normalizing ratio), done twice a week while taking Warfarin.

If discharged home **without** Home Care services-

- **INR** can be done at your primary medical clinic or a local hospital. This can not be done at your Orthopedic surgeons office or outpatient physical therapy locations.
- Blood draws will typically be ordered for Monday/Thursday or Tuesday/Friday.
- The INR will be called to your orthopedic surgeon or family medical physician, they in turn will call you back if you will need to change your dose of Warfarin.

Discharge

If discharged home **with** Home Care Services

- INR will be drawn by Home Care RN twice a week and called to your orthopedic surgeon or family medical physician

If discharged to a Transitional Care Facility(Nursing Home)

- Facility will draw INR twice a week and will receive orders from your orthopedic surgeon or family medical physician.

Lovenox

Lovenox is a shot given once or twice daily, as directed by your surgeon. You or your family member will be given instructions on how to administer the shot prior to discharge. You will not need blood drawn weekly while on Lovenox, you may need a platelet check drawn if your family doctors feels it is necessary.

Aspirin

Your surgeon may order aspirin once or twice a day for six weeks.
(No lab draws are necessary.)

Miscellaneous information:

- It is suggested you avoid using a blade shaver while you are taking Warfarin or Lovenox. An electric razor is recommended.
- If you do get a cut, you may need to apply pressure to the area for a longer period of time before the cut stops bleeding while you are on anticoagulants.

Call your orthopedic surgeon or medical physician if any of the following develop

- Rectal bleeding
- Bloody urine
- Excessive bruising/bleeding
- Bloody or coffee ground appearing emesis
- Bloody nose

Total Knee Replacement Exercise Program All exercises to be performed 30 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.

Discharge

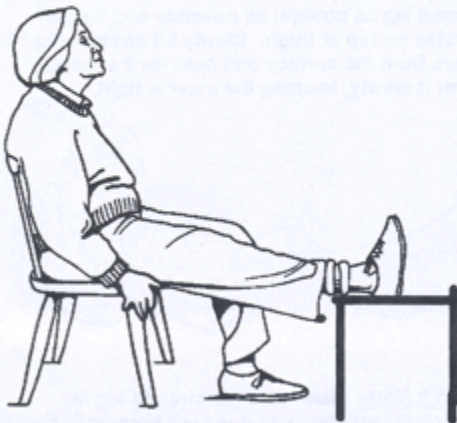
Total Knee Replacement Exercise Program (continued) All exercises to be performed 30 repetitions - SLOWLY

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

TIPS FOR PHYSICAL THERAPY AT HOME

1. CONTINUE TO PERFORM ALL EXERCISES **2 TIMES EVERY DAY.**
2. DO **ALL** EXERCISES **30 TIMES EACH.**
3. EXERCISES CAN BE PERFORMED LYING IN BED. DO **NOT** LAY ON THE FLOOR.
 - * YOU DO **NOT** HAVE TO LAY FLAT. YOU CAN PROP YOUR HEAD UP WITH PILLOWS.
 - * FOR AN EXERCISE BOARD, YOU CAN USE ANY OF THE FOLLOWING:
 - FLAT COOKIE SHEET**
 - CUTTING BOARD**
 - PLASTIC BAG**
 - * JUST PLACE UNDER YOUR SURGICAL LEG FOR THE EXERCISES THAT YOU SLIDE OUT TO THE SIDE(HIP ABDUCTION) OR UP AND DOWN (HEELSLIDES).
4. TO MAKE A ROLL FOR EXERCISES USE ANY OF THE FOLLOWING:
 - ROLLED UP OR FOLDED PILLOW**
 - 1 LARGE TOWEL ROLLED UP AND SECURED WITH TAPE**
 - 2 SMALLER TOWELS ROLLED UP AND SECURED WITH TAPE**
 - EMPTY COFFEE CAN WITH TOWEL AROUND IT**

*** THE DIAMETER OF THE ROLL SHOULD BE APPROXIMATELY 6 INCHES.
5. IF UNABLE TO LIFT YOUR SURGICAL LEG FOR EXERCISES YOU CAN LOOP A BELT OR TOWEL AROUND THE BOTTOM OF YOUR FOOT.
 - *** IF ABLE TO PERFORM THESE EXERCISES WITHOUT ASSIST THEN DO NOT USE A BELT OR TOWEL. THE SOONER YOU CAN DO THE EXERCISES INDEPENDENTLY THE STRONGER YOUR SURGICAL LEG WILL GET, EVEN IF IT IS A LITTLE MORE PAINFUL.

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.

Blood Transfusions

Know your options

What are the sources of blood? When a transfusion is needed, patients receive either blood they have donated for themselves or blood donated by the community. Being transfused with your own blood is generally the safest option, but some people are unable to provide their own blood and must rely on other blood sources.

Being your own blood donor

The blood that offers you the most safety and the best match is the blood you donate for yourself. This is called autologous donation. If you are able to be your own blood donor, the blood collection process will probably begin about three weeks before your surgery. However, the last donation must be made at least three days before surgery. Many patients anticipating surgery donate blood for themselves without problems. Your doctor will make the final decision, depending on your condition.

Benefits

Your own blood provides the best match. Transfusion of your own blood eliminates the risk of getting a viral infection, such as hepatitis or AIDS, from the transfusion. By giving blood to meet your own needs, you also help conserve the community blood supply for people who need blood in an emergency or who cannot be their own donors.

Possible risks

Your blood iron level will decrease after donation. For this reason, your doctor may prescribe iron supplements.

If you have questions regarding blood transfusion, please contact The Memorial Blood Centers phone number 651-332-7000 or you can refer to their web site at www.memorialbloodcenters.org.

Anesthesia

Who are the anesthesiologists?

The Operating Room, Post Anesthesia Care Unit (PACU) and Intensive Care Units 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?

At North Memorial, Anesthesiology, P.A. has a vast experience with lower extremity joint replacement surgery. At the present time, 80% of our patients receive a regional anesthetic for surgery. IV medications are also administered for sedation and relaxation. This approach typically provides excellent preoperative pain medication while minimizing adverse side effects. Furthermore, we are continually evaluating new techniques that would improve your overall experience. Your anesthesiologist will fully discuss your options after reviewing your medical history the day of surgery.

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.

Anesthesia (continued)

You will also meet your surgical nurses. Intravenous (IV) fluids will be started and pre operative 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 Joint Center Coordinator.

During surgery, what does my anesthesiologist do?

Anesthesiologist at North Memorial are responsible for medically directing your anesthetic experience. We utilize the anesthesia care team, in collaboration with highly trained nurse anesthetists, in providing your care.

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.

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.

Phone Directory

NAME	PHONE
North Memorial Medical Center	763-520-5200
Joint Replacement Center	763-581-8780
Joint Center Coordinator	763-581-7712
North Memorial Home Care	763-581-9350
Twin Cities Orthopedics	763-520-7870
Outpatient Physical Therapy	
Twin Cities Orthopedics Therapy	763-520-7870
Institute for Athletic Medicine	612-672-7100
NovaCare Therapy	1-866-290-6682
Commonly Used Nursing Homes	
North Ridge Care Center-New Hope	763-592-3000
St. Therese Care Center-New Hope	763-531-5000
Ambassador Care Center-New Hope	763-544-4171
Maranatha Care Center-Brooklyn Center	763-549-9608
Golden Living Hillcrest-Wayzata	952-473-5466
Guardian Angels Care Center-Elk River	763-441-1213
Colonial Acres-Golden Valley	763-544-1555
Benedictine Care Center- New Brighton	651-633-1686
Crystal Care Center	763-535-6260
New Brighton Care Center	651-633-7000
New Brighton Health and Rehab	651-633-7875
St. Therese Oxbow- Brooklyn Park	763-493-7000
St. Anthony Health Center	612-788-9673
Robbinsdale Good Samaritan	612-673-6260

Calendar

SUN	MON	TUES	WED	THURS	FRI	SAT

Calendar

SUN	MON	TUES	WED	THURS	FRI	SAT

Calendar

SUN	MON	TUES	WED	THURS	FRI	SAT

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