

Guidebook for Knees



St Peter's Hospital
Joint Replacement Center

ST PETER'S HEALTH PARTNERS

A Member of Trinity Health

TABLE OF CONTENTS

SECTION ONE: General Information	1
Welcome	1
Using the Guidebook.....	1
Overview of the St. Peter's Hospital	
Joint Replacement Center	2
Your Joint Replacement Team.....	2
Introduction to Total Knee Replacement.....	3
SECTION TWO: Getting Ready for Surgery	4
Your Pre-Surgery Joint Education Class	4
Your Coach and Support Team	4
Pre-Admission Testing.....	5
Medical and Anesthesia Evaluations	6
Medications.....	6
Personal Medication List.....	7
Diet and Nutrition	8
Flu/Pneumonia Vaccines	8
Smoking.....	8
Weight.....	8
Diabetes.....	8
Alcohol/Drug Use	8
Advance Directives.....	9
Planning for Leaving the Hospital.....	9
- Preparing Your Home for Your Return From the Hospital	9
Exercising Before Surgery.....	10
Pre-Surgery Instructions.....	10
- 7 Days Before Surgery	11
- 5 Days Before Surgery	11
- 3 Days Before Surgery	11
- The Day Before Surgery	11
- The Night Before Surgery	12
- The Day of Surgery (Before Your Arrival)	12
What to Bring to the Hospital.....	13
SECTION THREE: At the Hospital	14
Day of Surgery.....	14
Activity.....	14
Breathing Exercises.....	15
Circulation.....	15
Discomfort.....	16
Food/Fluids.....	16
Going to the Bathroom.....	16
- Preventing Falls	17
Wound Care.....	17
Discharge	17
- Going Home.....	17
- Going to a Short-Term Rehabilitation Facility	18

TABLE OF CONTENTS *(continued)*

SECTION FOUR: Living With Your Joint Replacement	19
Caring for Yourself at Home	19
- Changes in Your Body	19
- Compression Stockings	19
- Caring for Your Incision	20
Recognizing and Preventing Potential Complications	20
- Infection	20
- Blood Clots in the Legs	20
- Pulmonary Embolus	21
After Surgery Activity Goals	21
- Day of Surgery to 2 Weeks After Surgery	21
- Weeks 2 to 4 After Surgery	22
- Weeks 4 to 6 After Surgery	22
- Weeks 6 to 12 After Surgery	22
Activities of Daily Living	22
- Standing	22
- Walking	23
- Stair Climbing	23
- Bed Transfers	24
- Bathing and Showering	25
- Dressing Activities	27
- Car Transfers	28
Around the House	29
- Saving Energy and Protecting Your Joints	29
Dos and Don'ts for the Rest of Your Life	30
- The Importance of Lifetime Follow-Up Visits	30
SECTION FIVE: Exercises	31
Range of Motion and Strengthening Exercises	31
Advanced Exercises	33
Advanced Stair Exercises	35
SECTION SIX: Frequently Asked Questions (FAQs)	37
General FAQs	37
Understanding Anesthesia	40
SECTION SEVEN: Helpful Resources	42
Chlorhexidine Gluconate Soap	42
Preparing for Surgery: Patient Tracking Sheet	44
Outpatient Therapy Services	45
Short-Term Rehabilitation	46
Patient's Timeline Checklist to Prepare for Surgery	47
Coach's Checklist	48
Directions and Parking	49
Notes	50

SECTION ONE:

General Information

Welcome

We are pleased you have chosen the St. Peter's Hospital Joint Replacement Center.

Each year, more than one million people in the United States make the decision to undergo joint replacement surgery. Your decision to have elective joint replacement surgery is the first step toward a healthier lifestyle. Our program is designed to return you to an active lifestyle as quickly as possible.

Your health care is a cooperative effort among you, your doctor, and the hospital staff. Your team includes physicians, physician assistants, patient care technicians, nurses, clinical care coordinators, and physical and occupational therapists specially trained in total joint care.



A comprehensive course of treatment has been planned for you. We believe you play a key role in promoting a successful recovery. The long-term benefit of your surgery depends very much on the success of your continued rehabilitation at home. Therefore, we hope that you will continue to practice what the team has taught you long after you return home.

Using the Guidebook

The information in this guidebook is designed to help you through your surgery and recovery process by teaching you:

- How to be prepared for your surgery and hospital experience
- What you will need to do during your recovery
- How to live with a joint replacement and be as independent as possible

Please bring this book to the hospital with you. You should refer to this guide while you are in therapy and during your hospital stay. The information in the guidebook covers many details, so it may look overwhelming. You and your support team should carefully read this entire book at a comfortable pace for you. Refer to it as needed throughout your recovery process. You should keep your guidebook as a handy reference for at least the first year after your surgery.

Your physician, physician assistant, nurse, or therapist may add to or change any of the recommendations in this guidebook. Always use their recommendations first and ask questions if you are unsure of any information.

Overview of the St. Peter's Hospital Joint Replacement Center

We offer a unique program. Each step is designed to encourage the best results after surgery. Features of the program include:

- Dedicated nurses and therapists trained to work with joint patients
- Casual clothes (no drafty gowns)
- Private and semi-private rooms
- Focus on group activities
- Family and friends participating as "coaches" in the recovery process
- A comprehensive patient guide
- Brochures and education seminars about pain management
- A class to prepare you for surgery



Your Joint Replacement Team

Orthopedic Surgeon – The orthopedic surgeon is the specially trained doctor who will perform the procedure to repair your damaged joint.

Physician Assistant (PA) – The PA works with your doctor to prescribe, diagnose, and treat health care problems. Physician assistants often see you before, during or after joint replacement surgery.

Registered Nurse (RN) – The RN is a professional nurse who is responsible for managing your nursing care following your surgery while using the surgeon's instructions to guide your care. RNs offer educational information to you and your family about health and safety needs – before and after surgery. RNs also provide care and education in your surgeon's office.

Clinical Care Coordinator (C3) – This registered nurse works closely with your surgeon and the other team members to understand your needs, plan for your care in the hospital, and help you prepare for discharge. Your plan may include outpatient therapy, home equipment, and/or any skilled nursing care, if needed.

Physical Therapist (PT) – The physical therapist will guide your return to functional daily activities. Your PT will train you and your coach in safe transfer techniques and teach exercises designed to regain your strength and motion after surgery.

Occupational Therapist (OT) – The occupational therapist will teach you about performing daily tasks such as bathing and dressing with your new joint. Your OT will also teach you how to use special equipment that can assist you with such tasks after you receive your replacement.



Introduction to Total Knee Replacement

The “term total knee replacement” is misleading. The knee itself is not replaced, as is commonly thought, but rather an implant is used to re-cap the worn bone ends. This is done with a metal alloy on the femur and a plastic spacer on the tibia and patella (kneecap). This creates a new, smooth cushion and a functional joint that can reduce or eliminate pain.



A. Normal Knee



B. Arthritic Knee



C. Knee Replacement

SECTION TWO:

Getting Ready for Surgery

The information in this section explains everything you need to know and do before you arrive at the hospital for your surgery.

Your Pre-Surgery Joint Education Class

To prepare you for your joint surgery, we will ask you attend a special class for patients scheduled for surgery. You will need to register to attend an in-person educational class to better prepare you and your coach for your surgery. For those unable to attend this class in person, we do have a video available for patients physically unable to attend the scheduled class (sphp.com/find-a-service-or-specialty/joint-replacement/patient-education). It is strongly suggested that your family member/ friend that will act as your coach, attends the class with you. The coach's role will be explained in the class presentation. You can call (518) 525-2227 to schedule your Pre-Surgery Joint Education Class. Please have your coaches name available when you call.

The class outline is as follows:

- Meet the Joint Care Team
- Welcome and overview
- Getting ready for surgery
- Reviewing your exercises
- What to expect at the hospital
- Anesthesia and pain control
- Rehabilitation
- Discharge Planning/Insurance/Obtaining Equipment

Your Coach and Support Team

Your friends and family who are involved in your daily life are important to you. Choosing a family member or friend to act as a coach will help you through your surgery and recovery process. This person will be with you from making preparations for surgery through your stay in the hospital to your discharge to home. Your coach will attend pre-surgery class, give support during exercise classes and keep you focused on healing. He or she will encourage you to continue exercising when you return home and ensure that home remains safe during your recovery. A coach's checklist is located on Page 48.



NYS Caregiver Advise, Record and Enable (CARE) Act

The CARE Act allows a hospital patient to list a family caregiver in his or her medical records. This designated caregiver is someone who will help you take care of yourself after you go home. He or she must be given information before you are discharged including instructions for tasks you may need. For more information, ask your nurse.

Pre-Admission Testing (PAT)

The PAT process is an important part of getting you ready for your procedure. PAT works with anesthesia and your surgeon to evaluate your health prior to procedure. Our Pre-Admission Testing (PAT) staff will assist you through this process.

They will help you prepare for surgery by:

- Acting as a liaison for the coordination of your pre-surgery care between the doctor's office, the hospital, and the testing facilities, if necessary
- Confirming your appointments for medical testing
- Confirming that you have made an appointment, if necessary, with your medical doctor and/or cardiologist and have obtained the pre-surgery tests your doctor has ordered
- Answering questions and directing you to specific resources within the hospital

After your surgeon's office has scheduled you for joint surgery, all communication with PAT is done by telephone. **WE WILL CALL YOU.**

To make this process easy for you, it is especially important to answer your phone when we call. Your caller ID may NOT have the hospital name on it, and we realize this is difficult. It may say SPAM, unknown or Albany. Please be sure to check your messages and be sure your voicemail box is kept empty. If you have not been called within 3 days before your procedure, please call us at (518) 525-1545 and press Option #4 for an RN (Registered Nurse).

What are the PAT appointment calls for?

- First call: This call is meant to evaluate what you may need done for your procedure. The RN will schedule your PAT appointment, COVID test, nursing interview and enroll you in MyChart. **This call can take up to 20 minutes.**
- Interview: An RN will ask about your health, current medications, and give you information about getting ready for your procedure (eating/showering/arrival/where to go). **This call can take up to 45 minutes.**
- The PAT appointment: If you need one (this is based on current health and the procedure being done) it may include: blood testing, chest x-ray, EKG, and urine testing. PAT Appointments and COVID testing are ALL DONE at *Albany Memorial Campus, 600 Northern Blvd, Albany, Valet Park and Enter Main Entrance – Go To 4th Floor* even though your procedure is at St Peter's. **This appointment may take 15-45 minutes depending on what was ordered.**

THIS TELEPHONE INTERVIEW IS A VERY IMPORTANT PART OF THE PREPARATION FOR YOUR SURGERY.

The nurse will review your medical and surgical history, inform you of the things you will need to do in preparation for your surgery (such as fasting), and tell you which medications to take (or **NOT** take) the morning of surgery.

Please have the following information ready for this telephone interview:

- A list of medications, vitamins, and herbal supplements you are taking (both prescription and over-the-counter), including the dose and spelling of each medication (See Page 7 for a place to write down your medications.)
- Your neck size (This information is needed to complete the pre-anesthesia assessment. Please measure around the base of your neck.)
- The name and phone number of your primary care doctor and any other physician specialist you routinely visit
- The name and phone number of your pharmacy

To help us be sure we have all the reports required for your medical record, please tell the PAT staff if you have had any blood work, electrocardiograms (EKG) or pre-surgical evaluations within the last 30 days. Please note your doctor **must have completed** a history and physical exam within 30 days prior to your surgery and faxed that form to (518) 944-2505.

If you have any questions, call (518) 525-1545 press option 4, between the hours of 7 am and 7 pm. Please use the space provided to record your appointment times.

Telephone Pre-Admission Testing Interview Appointment

Date _____ Time _____

Pre-Surgery Education Class

Date _____ Time _____

Medical Pre-Surgery Evaluation

Date _____ Time _____

Cardiac Pre-Surgery Evaluation

Date _____ Time _____

For information about confirming your surgery, see Page 11.

Medical and Anesthesia Evaluations

When you were scheduled for surgery, you should have received a medical evaluation letter from your surgeon. The letter will tell you whether you need to see your primary care doctor and/or a specialist.

Please follow the instructions in the letter. If you need to see your primary care doctor, it will be for medical evaluation before surgery. (This is in addition to seeing your surgeon before surgery.) The PAT team may order additional physician consults after discussing your medical history with the anesthesiologist.

Medications

Discuss which medications should be stopped and when with your surgeon. This includes Plavix®, Coumadin®, Pradaxa®, Eliquis®, Xarelto®, and pain medications. Medications that are often stopped prior to surgery include:

- Aspirin
- Some anti-inflammatory medicines (like Motrin®, Aleve®, etc.)
- Some vitamins
- Fish oils
- Herbal supplements (such as ginseng, ginkgo biloba and garlic pills)
- Herbal teas
- Fortified cereals that contain vitamin E
- Pain medications that contain aspirin

Personal Medication List

[illegible]

Doctor Name: _____

Phone Number: _____

Pharmacy Name:

Phone Number:

Emergency Contact Name:

Phone Number:

Some over-the-counter and prescription pain medications can continue until the time of surgery.

Please be honest about your drug and alcohol use. It is important to know as it can relate to your anesthesia and pain management.

Diet and Nutrition

A healthy diet is important before and after surgery. A balanced diet includes lean meats, fruit, vegetables, healthy fats, and low sugar. Improving your nutritional health can lessen your risk of wound infection and improve healing after surgery.

Flu/Pneumonia/COVID Vaccines

When scheduling joint replacement surgery, it is important to choose the right time to be vaccinated. **Your surgeon requests you receive either vaccine 2 to 3 weeks before or 2 to 3 weeks after your surgery.** Low grade fever and flu-like symptoms are common after vaccination. Your surgeon would like to decrease these symptoms during your surgery period.

Smoking

It is recommended to stop smoking 4 weeks before surgery. Your anesthesiologist requires no smoking beginning at 6 pm on the evening prior to surgery. (To learn more about an anesthesiologist, see Page 40.) Smoking raises your blood pressure and heart rate. It delays your healing process by limiting the size of your blood vessels and the amount of oxygen circulated in your blood. Smoking can also increase blood clotting which can cause problems with your heart, brain, and lungs.

If you quit smoking before you have surgery, you will improve your ability to heal. If you need help quitting, St. Peter's Health Partners offers excellent programming for smoking cessation. For more information, contact our Smoking Cessation program, "The Butt Stops Here," at (518) 459-2550 or visit www.healthprograms.org/about/the-butt-stops-here. You may also contact the New York State Smoker's Quitline at 1 (866) NY-QUITS (697-8487).

Weight

Maintain a healthy weight. If you are overweight, losing weight will lessen stress on your joint and your risk for problems with your surgery. If you are too heavy, your surgeon may delay your surgery and ask you to lose weight. If your weight is normal, keep it that way.

Diabetes

Patients with diabetes have a higher risk of problems with surgery, including infection, following joint replacement. The A1C is a blood test that shows your average blood sugar over the past 3 months. If your A1C is greater than 8, your surgeon may delay your surgery and ask you to see a doctor who specializes in treating diabetes. If you do not know your hemoglobin A1C level, ask your doctor.

Alcohol/Drug Use

Research shows that stopping use of alcohol or illegal drugs 2 weeks prior to surgery will improve your ability to heal. Your anesthesiologist requires that you do not use alcohol or illegal drugs after 6 pm on the evening before surgery.

Advance Directives

An advance directive is a written or verbal statement that explains your wishes about your health care. If you become unable to express your wishes to the doctor, family or hospital staff, an advance directive can help ensure that your wishes are followed.

There are different types of advance directives. You may wish to talk to your attorney or your doctor about which is the most appropriate for you.

- **Living Wills** are written instructions that explain your wishes for health care if you are unable to speak for yourself. Although they are not legal documents in New York state, they do provide what the court calls “clear and convincing” proof of your wishes about your health care.
- A **Health Care Proxy** is a form which names a person (your agent) to make medical decisions for you, if you become unable to do so. This person’s role is to represent your wishes for care and treatment if you cannot speak for yourself. In New York state, your agent must know your wishes about artificial nutrition and hydration (tube fluids and feedings) in order to be allowed to make those decisions.
- **Do Not Resuscitate (DNR)** forms are used to explain that you do not wish to be resuscitated (brought back to life) if your heart stops or if your breathing stops.
- **Medical Orders for Life-Sustaining Treatment (MOLST)** are intended for use with people who are at the end of their lives or dealing with life-threatening illnesses. These forms may include your decisions about resuscitation, breathing assistance,

hydration and nutrition, and use of pain medications. These orders are in place as soon as they are signed by a doctor.

During your pre-admission testing process and on admission to the hospital, you will be asked if you have an advance directive. If you do, please bring copies of the documents with you so they can become a part of your medical record. Advance directives are not a requirement for hospital admission.

Planning for Leaving the Hospital

Understanding your plan for discharge from the Joint Replacement Center is an important task in the recovery process. You can expect help from your joint care team to develop a plan that meets your particular needs. You should expect to be able to go directly home to recover in the privacy and comfort of your home.

Preparing Your Home for Your Return from the Hospital

It is important to have your house ready for your arrival back home. Use this checklist as you complete each task.

- ☐ Put things you use often (like an iron or coffee pot) on a shelf or surface that is easy to reach.
- ☐ Check railings to make sure they are not loose.
- ☐ Clean your home.
- ☐ Do the laundry and put it away.
- ☐ Put clean linens on the bed.
- ☐ Prepare meals and freeze them in single serving containers.

Checklist continues on next page.

- ☐ 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 possible dangers from walkways.
- ☐ Install night-lights in bathrooms, bedrooms, and hallways.
- ☐ Install grab bars in the shower/bathtub. Put adhesive slip strips in the tub.
- ☐ Arrange to have someone collect your mail and take care of pets.

Exercising Before Surgery

Many patients with arthritis favor the painful leg. As a result, the muscles become weaker making recovery slower and more difficult. It is important to be as flexible and strong as possible before undergoing a total knee replacement. Exercising before surgery can make recovery faster and easier.

There are 11 basic exercises your doctor may instruct you to begin before surgery and continue until your procedure (see list). You should be able to do them in 15 to 20 minutes, and it is typically recommended that you do all of them twice a day. Consider this a minimum amount of “training” prior to your surgery. Always consult your orthopedic doctor before starting your exercise plan before surgery.

Remember that you need to strengthen your entire body, not just your legs. Strengthen your arms by doing chair pushups. (See Page 33 for details on armchair pushups.)

You will be relying on your arm strength to support you when walking with the walker or crutches. Your arm strength will also help you get in and out of beds and chairs, as well as on and off the toilet. You should also exercise your heart and lungs by performing light activities such as walking for 10 to 15 minutes each day.

Range of motion and strengthening exercises are:

(See Page 31)

1. Ankle Pumps
2. Quad Sets
3. Gluteal Sets
4. Abduction and Adduction
5. Straight Leg Raises
6. Heel Slides
7. Short Arc Quads
8. Knee Extension Stretch
9. Knee Extension - Long Arc Quads
10. Armchair Pushups
11. Seated Knee Flexion

Do NOT do any exercise that is too painful.

Pre-Surgery Instructions

Keeping you safe and free from infection is important to our staff. You can play a very important role in your health by preparing your body for surgery before you arrive at the hospital. To do this you will need chlorhexidine gluconate (CHG) soap. Studies show that using this product can lessen your risk for an infection after surgery.

7 Days Before Surgery

DO NOT shave or remove hair below the neck for seven days before surgery.

3 Days Before Surgery

Shower Prep Before Surgery

At this time you should have obtained a 4-ounce bottle of antibacterial soap. Please follow instructions on obtaining this soap issued during your pre-surgery class. Studies have shown that using an antibacterial soap (chlorhexidine gluconate) for four showers before surgery reduces the risk of infections. Ask for chlorhexidine gluconate 2 percent at your local pharmacy. A 4-ounce bottle is enough.

Because skin is not sterile, we need to be sure your skin is as clean as possible. Your skin will be prepared with antiseptic before your surgery, but the antiseptic can work better if your skin is clean.

See Page 43 to follow the directions for your showers.

2 Days Before Surgery

Perform the second shower using the chlorhexidine gluconate (CHG) soap after shampooing and cleaning with your normal soap, to lessen your risk of infection after surgery.

The Day Before Surgery

Confirming Your Surgery Arrival Time

PAT will call you to inform you when to arrive and where to report the day of surgery. PAT will leave a message if we are unable to reach you. **If your surgery is on a Monday, you will receive a call from Pre-Admission Testing on the Friday before the surgery.**

If have not received a call by 3 pm please call the pre-admission testing office at (518) 525-1545 between 3 and 7 pm.

Plan to arrive to the hospital on time. Your surgery time could be moved to an earlier time with little notice. 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.

The Night Before Surgery

Perform the third shower using the chlorhexidine gluconate (CHG) soap after shampooing and cleaning with your normal soap. DO NOT apply any products after washing such as hairspray, gel or mousse.

DO NOT use lotion, powder, deodorant, makeup, or perfumes/colognes after your shower the night before and morning of surgery.

Use clean bed linen.

Stop Eating at Midnight

It is necessary to have an empty stomach so that you do not vomit during anesthesia. Vomiting during anesthesia may cause food to enter the lungs and increase your chances of developing pneumonia.

- **DO NOT eat anything (including milk, coffee creamer, chewing gum, candies, lifesavers, etc.) after midnight the night before your surgery.**
- It is encouraged to drink clear liquids up until 2 hours before your scheduled time to report to the hospital. Some examples of clear liquids include water or clear carbonated beverages, transparent fruit juice with no pulp, clear tea (no cream/ no sugar/ no honey) and black coffee (no cream/ no sugar).
- If your pre-admission testing nurse told you to take certain medications with a small amount of water during your fasting time, it is OK to do so.
- **DO NOT smoke tobacco products, drink any alcoholic beverages or use illegal drugs after 6 pm the night before surgery.**

Your surgery will be cancelled if the fasting instructions are not followed. Please call the pre-admission testing office at (518) 525-1545 between the hours of 7 am and 7 pm if you have any questions about what medications to take the morning of surgery.

The Day of Surgery (Before Your Arrival)

- Take any medications your physician or nurse told you to take before surgery.
- Remove makeup, and fingernail and toenail polish.
- Take the fourth and final shower with the antibacterial CHG soap as instructed. Be sure to wear clean clothes following this shower.
- You will be asked to arrive two to three hours before your surgery. However, if your surgery is at 7:30 am, please report at 5:45 am unless told otherwise.
- **Special note for patients with insulin-dependent diabetes:** Report to the hospital no later than 8 am. DO NOT take your insulin the morning of surgery unless otherwise directed by your doctor.

For Your Information

You will be asked to remove the following on day of the surgery:

- All jewelry, eyeglasses, hearing aids, wigs, and toupees (This helps to avoid loss or damage while in the operating room.)
- Contact lenses (This will prevent damage to your eyes while under anesthesia.)
- Dentures (This helps prevent damage to the teeth.)
- Tampons (It is best to wear a sanitary napkin.)

What to Bring to the Hospital

Use the following list to help you pack for your hospital stay.

Clothing

- ☐ **Loose** pajamas or short nightgown and short robe, if desired
- ☐ Underwear or incontinence briefs, if used before admission
- ☐ **Loose** shorts, jogging suit, sweats, tops
- ☐ Slippers with backs and rubberized sole or walking sneakers/shoes with Velcro® closures or elastic shoe laces
- ☐ Socks (thin)

Personal Care Items

- ☐ Toiletries (toothbrush, toothpaste, denture cleanser/cup, deodorant, electric or other razor, shaving cream and comb; avoid powders)
- ☐ Eyeglasses
- ☐ Make-up or hand mirror, if desired
- ☐ Hearing aid and batteries
- ☐ CPAP machine settings, tubing, and machine
- ☐ Insulin pump, supplies

Important Papers

- ☐ Your most current list of medications and supplements, noting which ones have been stopped and when
- ☐ Driver's license or photo ID, insurance card, Medicare/Medicaid card
- ☐ Copy of your advance health care directive
- ☐ If insured through workers' compensation, bring all paperwork, case number, date of injury and your caseworker's name and phone number
- ☐ Important telephone numbers (include the person bringing you home)
- ☐ Your guidebook

Other Items

- ☐ Cell phone and charger
- ☐ Hard candy or gum
- ☐ Reading material or music (You will need to bring your own headphones and personal music player.)
- ☐ Small amount of cash and a credit card to purchase phone and television service, and to buy any needed equipment

What NOT to Bring to the Hospital

- DO NOT bring valuables (jewelry, laptops, personal handheld devices, etc.) with you the day of surgery. Any personal belongings you bring, including wedding bands, should be left with a family member until you have a permanent room assignment.
- DO NOT bring electrical appliances (radio, hair dryer, portable TV). Battery-operated appliances may be used. Men may use electric razors to shave their faces.

SECTION THREE:

At the Hospital

Day of Surgery

After you arrive to the hospital, you will be registered. You will then be taken to the pre-surgery area where nurses will prepare you for surgery. You will put on a hospital gown and sign consent forms. Your support team may be with you on the day of surgery; however, we ask that there be no more than two visitors at your bedside. Please do not bring small children.

There may be times where visitors are asked to leave you while the joint care team is working with you. We appreciate your patience and cooperation at these times.

Your leg will be cleaned with a CHG wipe in the holding area prior to surgery.

Intravenous (IV) infusion will be started by putting a needle in your hand or arm. You will receive fluids, nourishment, and medications through the IV. You will discuss your anesthesia with an anesthesiologist or nurse anesthetist. You may be given medication to relax. You will then be taken to the operating room for your surgery.

Before and after surgery, we will monitor your blood glucose level by giving you a finger stick blood test. Based on your glucose level, insulin may be needed. Studies have shown that controlling your glucose level after surgery can lessen your risk for infection.

After you are taken into surgery, your loved ones will need to go to the surgical waiting area. A surgeon will update your family at the end of your surgery. One family member should be in the waiting area at all times to receive an update from the surgeon.

You will receive medicine to help relieve any pain and your vital signs will be monitored. If you experience any symptoms, talk to your nurse. Nurses will monitor you closely until you are stable and then move you to a hospital room on the orthopedic unit. Your surgeon will talk with your family.

When your surgery has ended, you will be taken to the Post-Anesthesia Care Unit (PACU). It is normal to feel a little “hazy” when you wake up from anesthesia. A nurse will give you some oxygen either through your nose or through a face mask. The usual length of stay in the PACU is 1 to 2 hours.

Activity

It is very important you begin the ankle pumps exercise on the 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 (see Page 15).

A nurse or therapist will help you in and out of bed and give you instructions on walking after surgery. It is important to get out of bed and walk as soon as possible **with staff** because it helps the healing process. You will be asked to sit up in a special chair for meals and throughout the day.

Therapists will teach you movements you need to avoid, exercises to strengthen your muscles and how to walk safely. Each day your activity level will increase to improve your strength and mobility. You will walk further each day and progress toward independence with bathing and dressing. You will perform exercises several times per day. Your rehabilitation program will continue after you go home.

EQUIPMENT

After surgery, you may need special equipment to help you walk and care for yourself. This equipment is available through Northeast Home Medical Equipment (a member of St. Peter's Health Partners) and other local vendors. Your therapist can answer any questions you have about the equipment. He or she can also help you order equipment through Northeast Home Medical Equipment before you are discharged from the hospital (see Page 45 for contact information). Equipment costs may be covered by insurance or you may have to pay out-of-pocket.

Breathing Exercises

You will do deep breathing and coughing exercises for several days after surgery. You will be asked to use a breathing device called an incentive spirometer. This is done to expand your lungs and help get oxygen to your tissues. Techniques such as deep breathing and coughing may also help you recover more quickly.

DEEP BREATHING

- To deep breathe, you must use the muscles of your abdomen and chest.

- Breathe in through your nose as deep as you can.
- Hold your breath for 5 to 10 seconds.
- Breathe out slowly through your mouth. As you breathe out, do it slowly and completely. Breathe out as if you were blowing out a candle (this is called "pursed lip breathing"). When you do this correctly, you should notice your stomach going in. Breathe out for 10 to 20 seconds.
- Take a break and then repeat the exercise 10 times.

COUGHING

To help you cough:

- Take a slow deep breath. Breathe in through your nose and focus on filling your lungs completely.
- Breathe out through your mouth and focus on your chest emptying completely.
- Repeat with another breath in the same way.
- Take another breath, but hold your breath and then cough hard. When you cough, focus on emptying your lungs.
- Repeat all steps twice.

Circulation

It is important to perform the leg exercises taught by your therapists to help your blood circulate. Sometimes snug stockings and/or sleeves wrapped around your legs or feet can help the blood flow in your legs. If present, the sleeves fill with air and then relax. The foot of your bed will be flat. It is okay to have a pillow under both ankles, but not under your operated knee.

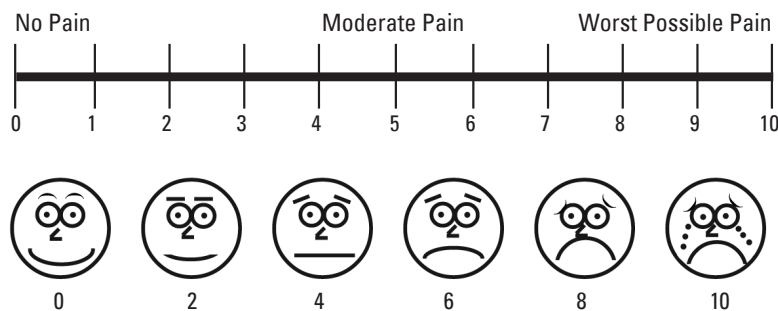
You will be given medication to reduce the chance of a blood clot. These medications are known as blood thinners (anticoagulants).

Discomfort

We will partner with you to manage your pain. The goal is to manage your pain so you can rest and take part in therapy. Ask your nurse for pain medication when your pain is a 3 to 4 out of 10. **DO NOT WAIT.** You may receive pain medication through your IV and/or you may be given pain pills. An ice pack is used to lessen pain and swelling. If you need more help with your pain management, talk to your nurse.

PAIN SCALE

Using a number to rate your pain can help the joint care team understand the severity of your pain and help them make the best decision to help manage it.



Food/Fluids

You will have fluids going through your IV.

Your nurse will help you decide when you can eat solid food. Increasing food slowly can help to avoid nausea that sometimes happens after anesthesia or use of pain medication. You may not be very hungry for some time. It is important that you eat as best you can in order to heal well.

Going to the Bathroom

You may have a tube to drain the urine from your bladder. This catheter will be removed after surgery. Your team will then help get you out of bed and go to the bathroom. It may take a day or more to have a bowel movement. Anesthesia and pain medication can cause constipation. Drink plenty of fluids and eat whole grains, fruits and vegetables. A stool softener or laxative can help normal bowel function to return.

Preventing Falls

DO NOT get up without help from staff. Ask for help going to the bathroom or walking around the room or in hallways.



You are at a higher risk of falling when you try to get out of bed either to go to the bathroom or walk around the room by yourself. Follow the tips below to prevent falling in the hospital:

- **Use your call button to ask for help getting out of bed.**
- Wear your glasses, if needed for seeing to walk.

- Use canes, walkers, or other equipment as needed.
- Wear non-slip slippers/socks or shoes when walking.
- Avoid areas with spills or clutter.
- Tell us if your medicine is making you sleepy, light-headed, sluggish, or confused.

You will need to wear a yellow wrist band and yellow socks. This identifies your risk for falling to the staff.

Wound Care

You may have a big dressing on your knee. You may have a tube connected to a container coming out of your knee. That drain will likely be removed when your dressing is changed the first time. Your incision may have sutures, staples, steri-strips, or surgical glue.

Discharge

A clinical care coordinator (C3) may meet with you to help you plan for going home. Your discharge date is based on several factors including the recommendations of your therapists. Patients are typically discharged home the day of or the day after their surgery. You will need to have someone present who will be responsible for driving you home.

Your discharge is contingent on physical and occupational therapy evaluation. It is important to your coach or whomever will be with you at discharge to be present for

these treatments. **We ask that your coach be present at the hospital by 8 AM on the morning following your surgery to participate in these treatments.**

You will receive written discharge instructions concerning medications, physical therapy, activity, etc. Your therapist will arrange for any needed equipment. Be sure to keep your guidebook with you.

Going Home

Most patients go directly home and soon begin therapy at an outpatient physical therapy facility. If you are going home, you must arrange for someone to drive you home from the hospital.

You will be discharged with a prescription for outpatient physical therapy. Before coming to the hospital for surgery, you should call to schedule your outpatient therapy appointment. **Please schedule your physical therapy to begin 2 to 3 days after your expected discharge date.** You should also arrange for someone to drive you to and from an outpatient therapy facility after your discharge.

For information about outpatient therapy services available with St. Peter's Health Partners, see Page 45.

Your need for home health services will be determined by your joint care team. If you are going home needing these services, please be aware that these services are provided based on your insurance coverage. If these services are needed, your C3 will make arrangements for you.

Going to a Short-Term Rehabilitation Facility

Although uncommon, if you have a medically complex case, your therapist may recommend you have inpatient rehabilitation before going home. (This is also known as short-term rehabilitation.) If you need this type of care, your C3 will help you choose a facility based on your insurance coverage. It is best to have a few options in case your first or second choice is not available.

Most patients need transportation to inpatient rehabilitation. If you do not have anyone to drive you from the hospital, you may pay privately for a wheelchair van or stretcher service. The C3 will help you determine the best way to get to the inpatient rehabilitation facility, if necessary.

Please note that the majority of our patients do so well that they do not meet the guidelines to qualify for inpatient rehabilitation. Also be aware insurance companies do not become involved in social issues, such as lack of support at home, lack of transportation and the physical set-up of your home. These are issues you will have to address before your surgery.

Some insurance companies may not cover inpatient rehabilitation or may charge a co-pay. It may be a good idea to check on your coverage before surgery. We recommend that you call your insurance company to verify benefits and co-pays regarding outpatient physical therapy, home physical therapy and inpatient rehabilitation.

For information about short-term rehabilitation available with St. Peter's Health Partners, see Page 46.



SECTION FOUR:

Living with Your Joint Replacement

The information in this section will help you be more comfortable and safe during your recovery at home.

Caring for Yourself at Home

For Comfort

- Take your pain medicine at least 30 minutes before physical therapy.
- Gradually wean yourself from prescription medication to a non-prescription pain reliever as directed by your doctor.
- Change your position every 45 minutes.
- Use ice for pain control. Applying ice to your operated joint will lessen discomfort. It is recommended to use ice for at least 20 minutes each hour. You can use ice after your exercise program. A bag of frozen peas wrapped in a kitchen towel works well because the bag will easily mold to the shape of your knee. Mark the bag of peas and return them to the freezer so they can be used again later.

For Rest

Try not to nap too much. While you are recovering, try not to nap during the day so you sleep better at night.

Changes in Your Body

- Your appetite may be poor. Drink plenty of fluids to keep from getting dehydrated. Your desire for solid food will return.
- Your energy level will be lower for at least the first month.
- Narcotic pain medication can lead to constipation. Use stool softeners or laxatives as directed.
- You may have difficulty sleeping for up to 2 months after your surgery.

Compression Stockings

You may be asked to wear special stockings. These stockings are used to help compress the veins in your legs. Follow the instructions provided to you at discharge.

If swelling in the operated 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. Call your doctor if you notice increased pain or swelling in either leg.

Caring for Your Incision

Follow your surgeon's instructions for caring for your incision. In general:

- Keep your incision dry.
- Usually your incision is covered with a waterproof dressing.
- The dressing will be removed at your first appointment with your surgeon after your operation.
- You may shower immediately after you are discharged home. Important note: **No** baths or soaking.

Recognizing and Preventing Potential Complications

Infection

Signs of Infection (notify your surgeon when the signs are present):

- Increased drainage, redness, pain, odor, or heat around the incision
- Increased pain in knee
- Fever greater than 100.5 degrees (Take your temperature if you feel warm or sick.)

To Prevent Infection:

- Take proper care of your incision as explained.
- Notify your doctor(s) and dentist that you have a joint replacement.
- You will need to take special antibiotics when having dental work or other potentially contaminating procedures.

Blood Clots in the Legs

Surgery may cause the blood to slow and pool in the veins of your legs, creating a blood clot. This is why you have been given a prescription for a blood thinner (anticoagulant) medication after surgery. Blood thinners help to prevent clots from forming in the blood. If a clot occurs, you may need to be admitted to the hospital to receive intravenous blood thinners.

Taking Blood Thinners

- Blood thinners may be in pill or shot form (a tiny needle that goes into the abdomen).
- You may also need lab work done to make sure your medication is working properly.
- Take this medication for as long as directed by your doctor.
- Usually you will take this medication for 3 to 6 weeks after your knee replacement.



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.

To Help Prevent Blood Clots:

- Perform ankle pumps.
- Walk several times a day.
- Wear your compression stockings, if directed.
- Take your blood thinners as directed.

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

To Prevent Pulmonary Embolus:

- Prevent blood clot in legs.
- Recognize if a blood clot forms in your leg and call your surgeon quickly.

After Surgery Activity Goals

Exercise is very important after a total knee replacement. Exercise will help you strengthen your knee and other muscles. Continue with your walking program and challenge yourself to go farther every day. The more you are active and exercise, the more mobile you will become.

Day of Surgery to 2 Weeks After Surgery

- Continue with walker or two crutches unless otherwise instructed.
- Walk at least 300 feet with support.
- Go up and down a flight of stairs (12 to 14 steps) with a rail, as needed.
- Actively bend your knee at least 90 degrees.
- Straighten your knee completely.
- Independently sponge bath or shower and dress.
- Carefully return to homemaking tasks such as meal preparation and cleaning as directed by your doctor.
- Do 20 minutes of home exercises three times a day, with or without the therapist, from the program given to you.

Weeks 2 to 4 After Surgery

- Achieve goals from weeks 1 to 2 after surgery.
- Move from full support to a cane or single crutch as instructed.
- Walk at least one-quarter ($\frac{1}{4}$) mile.
- Go up and down a flight of stairs (12 to 14 steps) as needed.
- Bend your knee more than 90 degrees.
- Straighten your knee completely.
- Independently shower and dress.
- Do 20 minutes of home exercises three times a day with or without the therapist.

Weeks 5 to 6 After Surgery

- Achieve goals from weeks 1 to 4 after surgery.
- Walk with a cane or single crutch.
- Walk one-quarter ($\frac{1}{4}$) to one-half ($\frac{1}{2}$) mile.
- Begin progressing on a stair from one foot at a time to regular stair climbing (foot over foot).
- Actively bend knee 110 degrees.
- Straighten your knee completely.
- Drive a car.
- Continue with home exercise program three times a day.

Weeks 6 to 12 After Surgery

- Achieve goals from day of surgery to week 6 after surgery.
- Walk with no cane or crutch and without a limp.
- Go up and down stairs in normal fashion (foot over foot).
- Walk one-half ($\frac{1}{2}$) to one mile.
- Bend knee 120 degrees.
- Resume leisure activities such as dancing, bowling and golf.
- Continue with home exercise program three times a day.

Activities of Daily Living

Standing

Standing Up from Chair:

DO NOT pull up on the walker to stand! Sitting in an armchair is preferred. However, firm pillows may be added to a chair to make transfers easier.

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

Stand to Sit:

1. Back up to the center of the chair until you feel the chair on the back of your legs.
2. Slide out the foot of the operated knee, keeping the strong leg close to the chair for sitting.
3. Reach back for the armrest using one arm at a time.
4. Slowly lower your body to the chair, keeping the operated leg forward as you sit.

Walking

Using a Walker:

1. Push the rolling walker forward.
2. Step forward placing the foot of the operated leg in the middle of the walker area.
3. Step forward with the non-operated leg. DO NOT step past the front wheels of the walker.

NOTE: Take small steps. Keep the walker in contact with the floor, pushing it forward like a shopping cart.

If using a rolling walker, you can improve from this basic technique to a normal walking pattern. Holding onto the walker, step forward with the operated leg, pushing the walker as you go; then try to alternate with an equal step forward using the non-operated leg. Continue to push the walker forward as you would a shopping cart. When you first start, this may not be possible, but as you “loosen up” you will find this gets easier. Do not walk forward past the walker’s center or way behind the walker’s rear legs.

Stair Climbing

Using Stairs:

1. When going up the stairs, use the non-operated leg first.
2. When going down the stairs, use the operated leg first.
3. Always hold onto the railing, if it is available.



Bed Transfers

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 operated leg, you may use a cane, a rolled bed sheet, a belt or your elastic band to assist with lifting that leg into bed.)
6. Keep scooting and lift your other leg into the bed.
7. Scoot your hips toward the center of the bed.



Back up until you feel your leg on the bed.



Sit keeping your knee lower than your hip.



Scoot back on the bed, lifting the leg on the bed.

When Getting Out of Bed:

1. Scoot your hips to the edge of the bed.
2. Sit up while lowering your non-operated leg to the floor.
3. If necessary, use a leg-lifter to lower your operated 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.

Bathing and Showering

Tub seats, grab bars, long-handled bath brushes and hand-held showers make bathing easier and safer. However, these items are typically not covered by insurance.

Entering a Tub-Shower – Standing:

1. Be sure all items are readily accessible; soap, shampoo, washcloth and towel (if you plan to dry before exiting the tub).
2. Arrange to have standby assistance if needed the first time entering the tub-shower.
3. Stand sideways or parallel with your non-operated leg next to the tub.
4. Place your cane or crutch in the hand on the same side as your operated knee.
5. Supporting yourself with the cane or crutch, lean toward the operated side to bring your non-operated leg into the tub.
6. Supporting yourself with a hand inside the tub, lean through the cane or crutch on the opposite side, take a side step to make room for the operated leg to be brought into the tub.
7. Supporting yourself with the cane or crutch and maintaining balance with your non-operated leg, bring the operated leg into the tub by bending your knee with your foot behind you and bring the operated leg into the tub.
8. Place your cane or crutch within easy reach outside of the tub while you shower.

Exiting a Tub-Shower – Standing:

1. Reach for the cane/crutch outside of the tub-shower; hold the cane/crutch on the operated side.
2. Stand sideways or parallel to the tub with your operated leg next to the tub.
3. Place the cane/crutch outside of the tub, while supporting yourself with the cane/crutch and your non-operated leg, bend your operated leg with your foot behind you and lift your leg out of the tub. Be sure that there is enough room to step out with your non-operated leg.
4. While supporting yourself with the operated leg and cane/crutch, raise your non-operated leg over the tub. Make sure you do not twist on the operated leg when doing so.

Entering/Exiting a Shower Stall:

1. Enter or exit a shower stall in typical fashion as if walking with your cane or crutches.
3. Place the cane/crutch outside of the stall while showering.

Tub Transfer – Using a Tub Seat:

Tub seats come in multiple shapes/sizes. Your occupational therapist can guide you on which would work best for your situation.



Dressing Activities

Tips for Getting Dressed:

- Arrange clothing in an area that you can sit comfortably within your precautions (for example: edge of the bed, side chair or toilet/commode).
- Be sure that you have your dressing equipment nearby or have arranged for someone to assist you.
- Safety first: Remain seated to put on and remove garments over your feet and then stand to pull up/adjust clothing.
- For energy conservation purposes, put on and remove pants and undergarments and then stand only once to pull them up.

Putting on Pants and Underwear:

1. While sitting on a supportive surface, grab hold of the waistband along the operated pant leg. Lower the pants to the floor.
2. Gently raise your operated leg into the pants.
3. Pull the garment up to your knee or to where you can now reach the waistband.
4. Repeat above on the non-operated leg.
5. Once both pant legs are pulled up to your knees, stand up, secure your balance and pull the garments up to fasten.

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.
3. Lower yourself down.
4. Take your non-operated leg out first and then the operated leg.



Putting on and Removing Shoes:

1. For ease and comfort, you may want to purchase slip-on or Velcro®-adjusted shoes during your recovery process. Have someone available to tie your shoes if needed.
2. While seated on a supportive surface, grab the tongue of the shoe. Tilt the shoe at an upward angle. Then slide your toes up into the shoe.
3. Place the shoe horn at the back of your heel down into the shoe.
4. Bend your knee and place your foot flat on the floor, gently push your foot straight down into the shoe.
5. To remove shoes, reverse the above sequence.



Car Transfers

Getting Into the Car:

1. Push the car seat all the way back; recline the seat back to allow entering and exiting, but always have it in the upright position for travel.
2. Place a plastic bag on the seat to help you slide.
3. Back up to the car until you feel it touch the back of your leg.
4. Hold on to an object that does not move – car seat, dashboard and slide the operated foot out straight. **Be careful of your head** as you sit down. Slowly lower yourself to the car seat.
5. Lean back as you lift the operated leg into the car. You may use your cane, leg lifter or other device to assist.



Around the House

Saving Energy and Protecting Your Joints

In the Kitchen:

- DO NOT get down on your knees to scrub floors. Use a mop and long-handled brushes.
- Store frequently used items and heavy items such as canned goods and boxes at waist level. This eliminates unnecessary bending and reaching. For example, do not store your cutting board on the top shelf of your cupboards if you use it every day.
- Keep items like a can opener next to the canned goods, and the dishes next to the dishwasher or sink to prevent needless movement, bending and stretching.
- Store all lightly packaged foods up in your higher cupboards.
- Gather all items needed to prepare a meal or snack and place them on the counter top or table that you plan to use to prepare the food. Once this is done, sit down on a high stool or chair with elevating cushions.
- Never carry items in your hands when using a walker/crutches. An apron with pockets or a bag/basket attached to the walker will allow you to move items around the kitchen safely.

In the Bathroom:

- DO NOT get down on your knees to scrub the bathtub.
- Use a mop or other long-handled brushes for cleaning.

Safety and Avoiding Falls:

- Pick up throw rugs and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly secured 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 night lights 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. They do not provide adequate support and can lead to slips and falls.
- Sit in chairs with armrests to make it easier to get up.
- Rise slowly from either a sitting or lying position to avoid getting light-headed.
- Avoid lifting heavy objects for the first three months and then only with your surgeon's permission.

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

- Notify your doctor(s) and dentist that you have a joint replacement. You will need to take antibiotics when having dental work or other potentially contaminating procedures.
- Although the risks are very low for infections after surgery, it is important to realize the risk remains. A prosthetic joint could possibly attract the bacteria from an infection located in another part of your body. If you should 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 contact 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 you develop a fever of more than 100.5 degrees, or if the area is painful or reddened.
- When traveling, stop and change positions hourly to prevent your joint from tightening.
- See your surgeon yearly unless otherwise recommended.
- Consult with your surgeon or physical therapist about returning to specific sport activities.

The Importance of Lifetime Follow-Up Visits

Over the past several years, orthopedic surgeons have discovered that many patients are not following up with their surgeons on a regular basis. The reason for this may be that patients 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

It is important for you to continue to receive the quality care and advice you need long after your joint replacement surgery. If you are unsure how long it has been or when your next visit should be scheduled, call your doctor.

SECTION FIVE:

Exercises

Range of Motion and Strengthening Exercises

You will be asked to do the following exercises on both legs before and after surgery.

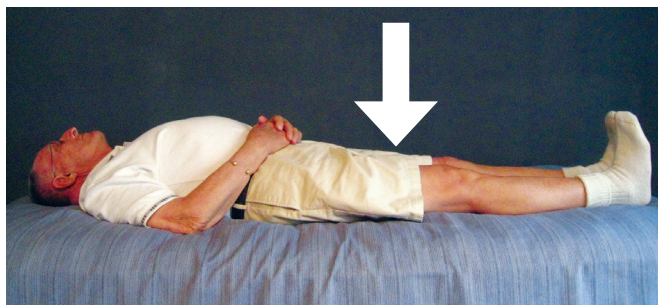
1) Ankle Pumps

Flex and point your feet. **Perform 20 times.**



2) Quad Sets (Knee Push-Downs)

Lying on back, press knees into the mat by tightening the muscles on the front of the thigh (quadriceps). Hold for a 5-second count. Do NOT hold breath. **Perform 20 times.**



3) Gluteal Sets - (Bottom Squeezes)

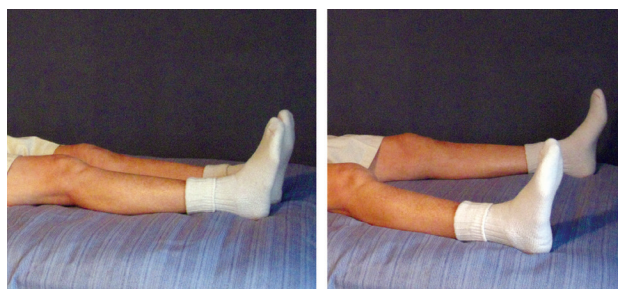
Squeeze bottom together. Hold for a 5-second count. DO NOT hold breath.

Perform 20 times.



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

Lying on back, tighten thigh muscles and slide leg out to the side. Keep kneecap and toes pointing toward ceiling. Gently bring leg back in to midline; may do both legs at the same time. **Perform 20 times.**



5) Straight Leg Raises

Lying on back with the one knee bent and foot flat, tighten the thigh muscle (quadriceps) on the straight leg and lift the leg 12 inches from the surface. Keep knee straight and toes pointed toward your head. **Perform 2 sets of 10.**



6) Heel Slides (Slide Heels Up and Down)

Lying on back, slide your heel up the surface bending your knee. After surgery your therapist may have you use a strap around the foot to assist the knee bend.

Repeat 20 times.



7) Short Arc Quads

Lying on back, place a 6- to 8-inch roll under the knee. Lift the foot from the surface, straightening the knee as far as possible. **Perform 2 sets of 10.**



8) Knee Extension Stretch

Sit on couch or bed with one leg extended and the other leg dangling off the side. Keeping the extended leg straight, gently lean forward until a slight stretch is felt in the back of your thigh. As you become more flexible, use a strap to pull up on the foot. Hold for 20 to 30 seconds. **Repeat 5 times.**



9) Knee Extension - Long Arc Quads

Sit with back against chair and thighs fully supported. Lift one leg up, straightening the knee. Hold for 5 seconds.

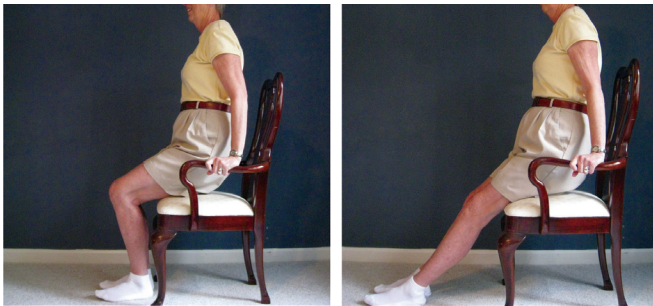
Perform 2 sets of 10.



10) Armchair Pushups

Sitting in a sturdy armchair with feet flat on the floor, scoot to the front of the seat and place your hands on the armrests. Straighten your arms raising your bottom up from seat as far as possible. Use your legs as needed to help you lift. As you get stronger, start using only your arms and the non-operated leg to perform the pushup. This will be how you will get up from a chair after surgery. DO NOT hold your breath or strain too hard.

Perform 2 sets of 10.



11) Seated Knee Flexion

Sitting in straight-back chair, bend one leg as far as possible under the chair (you can use the opposite foot to help). When your greatest amount of bend is reached, plant the foot and slide your hips forward further bending the knee. Hold for 20 to 30 seconds;

Repeat 10 times.



Advanced Exercises

Your physical therapist or doctor will instruct you to begin these exercises when you are ready.

1) Three Position Straight Leg Raises:

Perform the straight leg raise in three positions:

1. Lying on back using weights
2. Lying on the non-operated side
3. Lying on the stomach



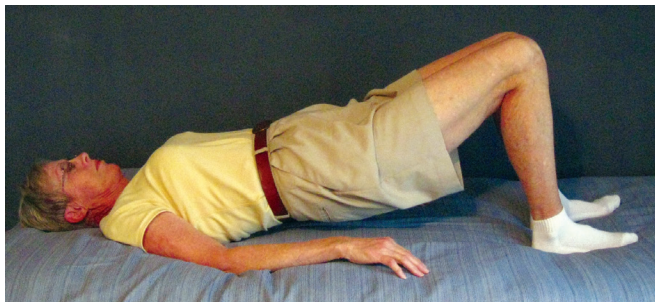
2) Mini Squat

Stand, with feet shoulder-width apart, and holding on to the kitchen sink. Keep your heels on the floor as you bend your knees to a slight squat. Return to upright position tightening your buttocks and quads. As you heal, you may go lower in the squatting position. **Perform 2 sets of 10.**



3) Bridges

Lying on back with knees bent and feet flat on the surface, tighten the buttock and lift your buttock off the floor. Hold for 20 seconds. **Repeat 5 times.**



4) Standing Heel/Toe Raises

Stand with a firm hold on the kitchen sink. Rise up on toes then back on heels. Stand as straight as possible! **Perform 2 sets of 10.**



5) Standing Terminal Knee Extension

Standing against the wall, with feet about 4 to 6 inches out. Place a 6- to 8-inch ball behind your knee. Push the ball into the wall by tightening the quadriceps muscle. **Perform 2 sets of 10.**



6) Standing Weight Shifts

Stand sideways to the kitchen sink and hold on. Keep the operated leg and heel firmly planted on the floor; step forward with holding briefly and then step back. Focus on shifting your weight to the operated side and on equal step distance. ***Perform 10 forward and 10 back.***



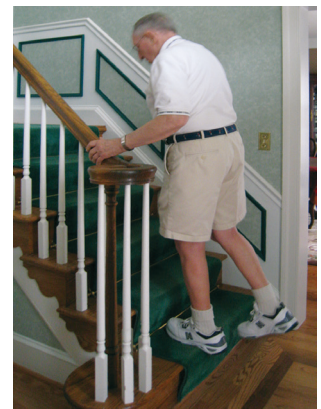
Advanced Stair Exercises

Your physical therapist or doctor will instruct you to begin these exercises when you are ready.

1) Single Leg Forward Step-Up

Hold onto the stair railing – place the operated leg on the first step. Step up on the stair with the operated leg. Return to the start position. You may need to begin with a 2- to 4-inch step (book/block) and progress to higher step as tolerated.

Perform 2 sets of 10.



2) Standing Calf Stretch

Stand, holding onto the railing, with toes on the stair and over the edge – relax and let the heels hang down. Hold for 20 seconds.

Repeat 5 times.



3) Single Leg Side Step-Up

Face the railing with the operated leg nearest the step. While holding onto the railing, place the foot on the step and slowly step up lifting the non-operated leg from the floor. Slowly lower the foot to the start position. You may need to begin with a 2- to 4-inch step and progress to the higher step as tolerated. **Perform 2 sets of 10.**



4) Knee Flexion Stretches

Stand, holding onto the railing; place the operated leg up on one or two steps (your therapists will instruct on which level to begin). Keeping your non-operated leg straight and on the floor, stretch forward, bending the operated knee. Hold for 20 seconds. **Repeat 5 times.**



5) Backward Leg Step-Up

Stand with your back to the steps and holding the railing. Place the foot of the operated leg on the step and step up backward until the other foot is on the step. Return to the start position by lowering the non-operated leg back down to the floor. You may need to begin with a 2- to 4-inch step and progress to the higher step as tolerated. **Perform 10 forward and 10 back.**



SECTION SIX:

Frequently Asked Questions (FAQs)

General FAQs

We are glad you have chosen St. Peter's Hospital Joint Replacement Center to care for your knee. People facing joint surgery often have the same questions. If there are any other questions that you need answered, please ask your surgeon or the joint care team. We are here to help.

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 known reason, the cartilage wears down, exposing the bone ends. Over time, destroyed cartilage can lead to 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.

What is total knee replacement?

The term "total knee replacement" is misleading. The knee itself is not replaced, as is commonly thought, but rather an implant is used to re-cap the worn bone ends. This is done with a metal alloy on the femur and a plastic spacer on the tibia and patella (kneecap). This creates a new, smooth cushion and a function joint that can reduce or eliminate pain.

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 instructions after surgery, there is no guarantee that your particular implant will last for any certain length of time. Your surgeon can answer any questions about future surgeries, if necessary.

What are the major risks?

Most surgeries go well without any complications. Infection and blood clots are two serious problems. To avoid these problems, your surgeon may use antibiotics and blood thinners. Surgeons also take special care in the operating room to lessen the risk of infection.

How long will I be in the hospital?

Most patients go directly home after one to two days in the hospital. There are several goals that must be met before discharge.

How do I make arrangements for surgery?

After your surgeon's office has scheduled you for joint surgery, all communication with PAT is done by telephone. **WE WILL CALL YOU.** Our Pre-Admission Testing (PAT) staff will assist you through this process.

They will help you prepare for surgery by:

- Acting as a liaison for the coordination of your pre-surgery care between the doctor's office, the hospital, and the testing facilities, if necessary
- Confirming your appointments for medical testing
- Confirming that you have made an appointment, if necessary, with your medical doctor and/or cardiologist and have obtained the pre-surgery tests your doctor has ordered
- Answering questions and directing you to specific resources within the hospital

What happens during the surgery?

Your surgery will be about one to two hours. Some of this time will be taken by the operating room staff to prepare for 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 and does not require you to be asleep. The choice is between you, your surgeon and the anesthesiologists.

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. We will partner with you to manage your pain. The goal is to manage your pain so you can rest and take part in physical therapy.

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 lasting numbness around the scar.

Will I need a walker, crutches or a cane?

Patients progress at their own rate. After your surgery, your therapist will help you determine if you need to use a walker, crutches or a cane. This assistance will only be needed for limited amount of time.

Where will I go after discharge from the hospital?

Most patients go directly home and begin therapy at an outpatient physical therapy facility. Your C3 will help you with this decision.

Will I need help at home?

Yes. For the first few days or weeks, depending on your progress, you will need someone to assist you with meal preparation and other tasks. 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?

Your joint care team will talk with you about your physical therapy needs. You may also receive a prescription for outpatient physical therapy. Before coming to the hospital for surgery, you should call to schedule your physical therapy to begin within 2 to 3 days of your expected discharge date. For information about outpatient therapy services available with St. Peter's Health Partners, see Page 45.

Will my new knee set off security sensors when traveling?

Your joint replacement is made of a metal alloy and may or may not be found when going through some security devices. Tell the security agent you have a metal implant. To share the information more privately, you can use the TSA's Notification Card available at - <http://www.tsa.gov/traveler-information/metal-implants>.

Understanding Anesthesia

Who are the anesthesiologists?

The Operating Room, Post-Anesthesia Care Unit (PACU), and Intensive Care Unit (ICU) 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 St. Peter's Hospital.

What types of anesthesia are available?

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

- **General Anesthesia** causes a temporary loss of consciousness so no pain is felt anywhere in the body.
- **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 are also given to make you relaxed and comfortable.
- An **epidural block** lessens sensation in the lower areas of the body while the patient remains conscious. It can be used for surgeries on the lower part of the body, labor and delivery, and in some cases, for pain relief after surgery. An epidural block is injected in the lower back between the vertebrae while the patient is either sitting up or lying on their side. The medication will begin working 10 to 20 minutes after the anesthetic drug has been injected. Although uncommon, a headache may occur.

- **Spinal anesthesia** is injected into the spinal canal to temporarily block pain. The numbing sensation it causes will go away slowly. As the anesthesia wears off, the patient will begin to feel sensations moving from the upper body toward the toes.
- **Local anesthetics** are injected at the surgical site to numb a small area.

Will I have any side effects?

Your anesthesiologist will discuss the risks and benefits associated with the different anesthetic options, as well as any problems 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.

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. If you would like to speak to your anesthesiologist before you are admitted to the hospital, this can be arranged through the Pre-Admission Testing department.

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, with a certified registered nurse anesthetist (the anesthesia care team), will manage vital functions including heart rate and rhythm, blood pressure, body temperature, and breathing. The anesthesia care team is also responsible for fluid and blood transfusions, 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 monitor you closely. During this period, you may be given extra oxygen while your breathing and heart functions will be observed closely.

May I choose an anesthesiologist?

Requests for specific anesthesiologists should be submitted in advance through your surgeon's office for coordination with the surgeon's availability.

SECTION SEVEN:

Helpful Resources

Chlorhexidine Gluconate Soap

What is Chlorhexidine Gluconate (CHG) soap?

Chlorhexidine gluconate soap is used to kill bacteria located on the skin.

Why is CHG soap necessary?

CHG soap is used to reduce the risk of post-surgical wound infections in surgery patients. Infections can occur when bacteria from the skin are spread to surgery-related wounds. The risk of infections is reduced when bacteria on the skin are killed using the soap before surgery.

When should CHG soap be avoided?

You should not use CHG soap if you are allergic to it. Women who are pregnant or breast-feeding should avoid using this soap as well.

How often do I use CHG soap?

Use CHG soap for four showers prior to surgery. Begin showers before surgery as follows:

- Three days before surgery, shower anytime.
- Two days before surgery, shower anytime.
- The day before surgery, shower in the evening and replace bed linens.
- Shower the morning of surgery.

(See *Preparing for Surgery: Patient Tracking Sheet* on Page 44.)

How do I use CHG soap?

Follow these steps with your CHG soap:

1. Wash your hair using your regular shampoo. Make sure you rinse the shampoo from your hair and body. Wash your face with your regular soap or cleanser.
2. Turn off the water.
3. Using a fresh, clean washcloth and $\frac{1}{4}$ of the CHG soap, wash from the neck down, including the back and groin. **Do not use on female genitalia, tip of penis or anus.**
4. Let the soap stay on your body for two minutes before rinsing. It is normal for the skin to feel sticky or dry when the soap is drying.
5. Turn the water back on and rinse your entire body thoroughly. This is also very important.
6. Use a clean, dry towel to dry your body.
7. **Do not** use lotions, powders or creams after taking your shower.
8. Dress in freshly washed clothes.

What if I miss a shower with CHG soap?

Shower as soon as you remember, unless the missed shower is within several hours of your next scheduled shower. If the missed shower is close to your next scheduled shower, skip it. Do not use extra CHG soap in your next shower to make up for the missed shower.

What should I avoid while using CHG soap?

Avoid getting the soap in your eyes, ears, nose, mouth, rectum, or vagina. If this does happen, rinse with water. Avoid using other medicines on the areas treated unless directed by your doctor.

What are the side effects?

Get medical help if you have signs of an allergic reaction such as hives; difficulty breathing; swelling of your face, lips, tongue, or throat. Stop using and call your doctor if you have severe burning, itching or redness; blistering or peeling; swelling or severe irritation of the treated skin.

How do I store CHG soap?

Store at room temperature. This product contains alcohol. Topical products with alcohol are flammable. Keep CHG soap away from flames and fire.

If you have further questions, please contact your doctor or pharmacist.

Preparing for Surgery: Patient Tracking Sheet

Use this form to keep track of your preparations for surgery. You may remove it from the book for easier use.

Chlorhexidine Gluconate (CHG) Showers Before Surgery

I completed the following showers/baths with CHG/Hibiclens® cleanser as instructed:

- ☐ 3 days before surgery
- ☐ 2 days before surgery
- ☐ 1 day before surgery (at bedtime)
- ☐ Morning of surgery

IMPORTANT: If for some reason you misplace the cleanser given to you or need more, all large pharmacies have this cleanser available. Check with your pharmacy, Walgreens®, Wal-Mart®, or CVS®.

Outpatient Therapy Services

Providing you with expert care in a location convenient to you, St. Peter's Health Partners Patient Therapies offers a variety of options for your outpatient therapy needs. Whether you need services in Albany, Rensselaer, Saratoga or Schenectady counties, St. Peter's has the services you need to help you in your recovery.

ALBANY COUNTY

Albany Memorial Hospital Rehabilitation Services

600 Northern Boulevard, Albany, NY 12204
(518) 471-3195

Albany Memorial Campus Hand Center

600 Northern Boulevard, Albany, NY 12204
(518) 427-3373

Sunnyview Therapy Services at Carman Medical Arts

3757 Carman Road, Guilderland, NY 12303
(518) 356-3139

Sunnyview Therapy Services – Delmar

5 Elm Ave.
Delmar, NY 12054
(518) 818-1888

Sunnyview Therapy Services – Latham Farms

579 Troy-Schenectady Road
Latham, NY 12110
(518) 382-4593

Sunnyview Therapy Services – Western Avenue

1450 Western Avenue, Suite 101
Albany, NY 12203
(518) 525-5588

RENSSELAER COUNTY

East Greenbush Physical Rehabilitation –

2 Empire Drive, Suite 202
Rensselaer, NY 12144
(518) 286-4990

St. Peter's Therapy Services

Massry Center, 147 Hoosick Street
Troy, NY 12180
(518) 268-5749

Sunnyview Therapy Services

75 Vandenburg Avenue
Troy, NY 12180
(518) 270-3041

SARATOGA COUNTY

Clifton Park Physical Rehabilitation –

648 Plank Road, Suite 101
Clifton Park, NY 12065
(518) 268-4800

SCHENECTADY COUNTY

Sunnyview Rehabilitation Hospital

1270 Belmont Avenue, Schenectady, NY 12308
(518) 382-4530

Sunnyview Therapy Services – Socha Plaza, Glenville

115 Saratoga Road, Glenville, NY 12302
(518) 386-3579

HOME CARE

Eddy Visiting Nurse & Rehab Association

433 River Street, Troy, NY 12180
(518) 274-6200

Eddy Health Alert

433 River Street, Troy, NY 12180
(518) 833-1040

Northeast Home Medical Equipment

60 Cohoes Avenue, Green Island, NY 12183
(518) 271-9600

Short-Term Rehabilitation

St. Peter's Health Partners offers several convenient locations for inpatient rehabilitation (also known as short-term rehabilitation). Whether staying for several days or several weeks at any of our available locations, our patient receives a personalized plan of care. This plan ensures that the appropriate medical, therapeutic and social services and discharge planning are available to each patient at every stage of the rehabilitation process.

Eddy Heritage House Nursing and Rehabilitation Center

2920 Tibbits Avenue, Troy, NY 12180
(518) 274-4125

Eddy Memorial Geriatric Center

2256 Burdett Avenue, Troy, NY 12180
(518) 274-9890

Our Lady of Mercy Life Center

2 Mercycare Lane, Guilderland, NY 12084
(518) 464-8100

Schuyler Ridge Residential Healthcare

One Abele Boulevard, Clifton Park, NY 12065
(518) 371-1400

St. Peter's Nursing and Rehabilitation Center

301 Hackett Boulevard, Albany, NY 12208
(518) 525-7600

Sunnyview Rehabilitation Hospital

1270 Belmont Avenue, Schenectady, NY 12308
(518) 386-3699



Patient's Timeline Checklist to Prepare for Surgery

2 to 4 Weeks Before

- ☐ Select coach/caregiver.
- ☐ Begin pre-surgery exercises.
- ☐ Prepare your home.
- ☐ Attend pre-surgery joint education class.
- ☐ Quit smoking.
- ☐ Quit drinking.
- ☐ Get flu shot if surgery between 9/1 to 4/1.
- ☐ Complete pre-surgery clearance appointments (primary care and/or other specialist[s]).

1 Week Before

- ☐ Stop shaving below the neck.
- ☐ No outdoor work.
- ☐ Purchase CHG soap from pharmacy, if needed.
- ☐ Make out-patient Physical Therapy (PT) appointment.
- ☐ Arrange for transportation to/from hospital.
- ☐ Arrange for transportation to/from PT appointments.

3 Days Before

- ☐ Begin to shower and log on tracking sheet (Page 44).

2 Days Before

- ☐ Continue showers.

The Day Before

- ☐ Shower in evening.
- ☐ Replace bed linens.
- ☐ Pre-Admission Testing will call you from (518) 525-1545 between 1 and 3 pm
- ☐ No smoking after 6 PM
- ☐ No eating after midnight

Day of Surgery

- ☐ Continue to not eat or smoke.
- ☐ Do not drink within 2 hours of your hospital report time.
- ☐ Shower in morning.
- ☐ Bring guidebook.
- ☐ Take any medications your physician or nurse told you to take.
- ☐ Coordinate Coach attendance at Day-after-Surgery 8 AM morning therapy session.

Coach's Checklist

A patient's coach has an important job. The person in this role will become an informed and confident caregiver to his or her loved one. As the coach, you will need to learn:

- ☐ Discharge is contingent on physical and occupational therapy evaluation. It is important to be present for these treatments. Visitation outside of hospital visiting hours is allowed for total joint replacement patient's Coach for purpose of being present for physical and occupational therapy session and subsequent discharge home. You must plan on being present at 8 AM on the morning following surgery.
- ☐ About blood thinner (anticoagulant) medication: monitoring, dosing, and precautions
- ☐ Pain medication dos and don'ts
- ☐ Signs and symptoms of infection
- ☐ Signs and symptoms of a blood clot and pulmonary embolism
- ☐ How to use the incentive spirometer and how often
- ☐ How to coach and assist the patient with transfers, if needed
- ☐ How to supervise the patient going up and down stairs
- ☐ The exercise program to follow at home
- ☐ Diet restrictions and recommendations
- ☐ Equipment use

If you have any questions or concerns, please ask a member of the team before your loved one is discharged.

Directions and Parking

DRIVING DIRECTIONS TO ST. PETER'S HOSPITAL JOINT REPLACEMENT CENTER

The center is located at: St. Peter's Hospital, 315 S. Manning Boulevard, Albany, NY.

From the North: Follow the Northway (I-87) south to Western Ave. (Rt. 20). Turn left onto Western Ave. and follow it approximately 2.8 miles to South Manning Blvd. Turn right on South Manning Blvd. and follow it approximately one mile to the St. Peter's entrance on the left.

From the South: Follow the NYS Thruway (I-87) north to exit 24. Take the far-right exit to Western Ave. (Rt. 20). Turn left onto Western Ave. and follow it approximately 2.8 miles to South Manning Blvd. Turn right on South Manning Blvd. and follow it approximately one mile to the St. Peter's entrance on the left.

From the East: Follow I-90 west to exit 4 (Rt. 85 Slingerlands). Follow Rt. 85 approximately two miles to the Krumkill Rd. exit. Turn left at the top of the ramp. Turn right at the immediate light onto Bender St./Krumkill Rd. and follow it to the next light. Turn left at the light onto New Scotland Ave. for approximately one mile. Turn right onto South Manning Blvd. St. Peter's entrance will be on the left.

From the West: Follow the NYS Thruway (I-90) east to exit 24. Take the far-right exit to Western Ave. (Rt. 20). Turn left onto Western Ave. and follow it approximately 2.8 miles to South Manning Blvd. Turn right on South Manning Blvd. and follow it approximately one mile to the St. Peter's entrance on the left.

DIRECTIONS TO AMBULATORY SURGERY UNIT

- Enter the main entrance of the hospital.
- Take Elevator L to the first floor. (This elevator is located inside the main entrance on the left.)
- Take a left off the elevator and enter Main Street.
- Continue down the hall until you reach the Pavilion elevators on your right. (You will pass the hospital gift shop on your left and the food court on your right.)
- Take the Pavilion elevators to the second floor.
- Check in with the waiting room receptionist.

PARKING

There is a flat rate fee of \$5. If valet services parks your car, the cost of parking is \$6. Valet service is available weekdays from 5:30 am to 8 pm, from 9 am to 6 pm on Saturday, and from 10 am to 6 pm on Sunday. (After hours, please contact Security at (518) 525-1522 to get your vehicle.) Tipping is not necessary. Parking discounts are available upon request.

Please note that on the day of your surgery you will receive two blue parking passes. These passes provide free parking for the person driving you on the day of your admission and the day of your discharge.

For Patients Who Have Special Needs

For those patients with special needs (difficulty walking, trouble with sight, etc.), please let us know of these needs before your arrival. (For example, you can do this when you make your appointment.) We are happy to help you.

NOTES

[illegible]



ST PETER'S HEALTH PARTNERS

315 S. Manning Boulevard
Albany, NY 12208
(518) 525-1445