YOUR KNEE REPLACEMENT

with Ben Robertson, M.D.

_____

Patient Name

_____

Surgical Procedure

_____

Surgery Date

Pre-surgery appointment with your primary care provider

_____

Provider

_____

Clinic

_____

Date Time

Table of Contents

PHONE LIST **3**
WELCOME TO ASTERA HEALTH ORTHOPEDICS **4**
HOW TO USE YOUR GUIDEBOOK **4**
GENERAL INFORMATION **5**
Joint Wellness Center 5
Joint Care Coordinator 5
MyChart 6
Prescription Opioids: What You Need to Know 7
Health Care Directive 9
Swing Bed Transitional Care 10
Personal Support Coach 11
Patient Financial Services 12
PREPARING FOR SURGERY **15**
Four Weeks Before Surgery 15
Two Weeks Before Surgery – Pre-Surgery Exam 20
Three Days Before Surgery – Preventing Complications 21
Two Days Before Surgery – CHG Liquid 21
One Day Before Surgery – CHG Liquid and Cloths 21
Pre-Surgery Checklist 23
DAY OF SURGERY **25**
When You Arrive 25
Anesthesia: What You Need to Know 26
YOUR HOSPITAL STAY **28**
GOING HOME **30**
POSSIBLE COMPLICATIONS **33**
HOME EXERCISE PROGRAM **34**
Weeks 1-2 35
Weeks 3-4 39
Weeks 5-6 43
OCCUPATIONAL THERAPY **48**
FREQUENTLY ASKED QUESTIONS **54**
EXERCISE PROGRESS REPORT **55**
MEDICATION LOG **58**
NOTES **62**

PHONE LIST

Ben Robertson, M.D. **218-632-8702**
Orthopedic surgeon
Lorinda Zigan, PA-C & Jody Rothermund, PA-C, Mary Janke, PA-C
Assists surgeon with surgery, hospital rounds and clinical visits.

Krystle Olson, RN, Joint Care Coordinator **218-632-8768**
Coordinates your joint replacement care and hosts patient education sessions.

Clinic Visits Scheduling **218-631-7579**

Physical/Occupational Therapy **218-631-7475**
Helps you adjust to your new joint, regain your mobility and navigate daily activities.

Social Services **218-631-5228**
Assists with health care directives and swing bed transitional care referrals.

Prior Authorization **218-632-8191**
Verifies with insurance company coverage for procedure/surgery.

Patient Resource Department **218-631-7498**
Assists with price estimation and Uncompensated Care Program

After Hours

Hospital Supervisor **218-631-3510**
After-hours questions/concerns

WELCOME TO ASTERA HEALTH ORTHOPEDICS

Thank you for choosing Astera Health for your joint replacement surgery.

Our dedicated team is here to guide you every step of the way from the planning stages to your transition home. During your stay with us, our goal is to ensure you receive state-of-the-art medicine combined with heartfelt care. We are committed to keeping you and your family well informed about your surgery so you can be an active partner in your health care.

HOW TO USE YOUR GUIDEBOOK

This guidebook was created to help you prepare for surgery and guide you through your recovery. The information is not meant to replace advice you receive from your healthcare team.

Inside this book, you will find information to assist you in knowing what to expect during the days and weeks leading up to your joint replacement as well as during your stay and recovery. You will find information to help make your stay with us at Astera Health more comfortable and convenient.

We will help you plan your discharge from the hospital so you can return home with peace of mind, knowing your recovery needs have been prepared. Communication between you, your providers, your nurses, and your therapy team is essential. Please ask questions and take notes as needed. Keep this guidebook as a handy reference for the first year after surgery.

Please try to read the entire book before your surgery. You may read it at your own pace and write your questions in the margins. There are also designated pages for notes at the end of the book.

Thank you again for choosing Astera Health. It is our privilege to care for you!

GENERAL INFORMATION

Joint Wellness Center

The Astera Health Joint Wellness Center, or joint camp, is a unique facility within the hospital dedicated to the care of your joints before and after surgery. The Joint Wellness Center introduces you to other total joint patients so that you can encourage one another and work toward recovery together.

Features include:

- Patient-centered, team-based care
- Private rooms
- Emphasis on group activities as well as individualized care
- Nurses and therapists who specialize in the care of joint patients
- Family or friends educated to participate as “coaches” in the recovery process
- A joint care coordinator who manages all pre-surgery care and discharge planning
- Coordinated after-care program
- Wi-Fi access

Joint Care Coordinator

Your joint care coordinator is responsible for your care needs from the time you commit to surgery during your stay with us and after you return home.

The joint care coordinator will:

- Act as your advocate and reliable contact throughout your treatment, including before surgery and after you return home
- Answer questions and coordinate your hospital care with Astera Health Orthopedics team members
- Help you find other helpful resources within the hospital
- Provide needed education before and after surgery

MyChart

MyChart is a secure and free online tool that connects patients electronically to parts of their medical record. Access to health information in MyChart is secured by a personal ID and password known only to the user.

How do I sign up?

The easiest way to sign up for MyChart is to ask your provider or a staff member at the clinic, hospital or emergency department. They will take care of everything and ensure your account is ready for you to use.

You may also go to asterahealth.org/mychart, click the blue "Sign Up Now" button and fill out a detailed form.

Key features

Once you have registered for MyChart, you will have access to the following information:

- **Stay in touch with your provider:** Communicating with your provider and clinic staff is as simple as sending an email, and it's even more secure, meaning your information stays private and documented in your medical record for future reference. Through the Messaging Center, you can:
    - Schedule, request or cancel appointments
    - Ask non-urgent medical questions

- **Track your health:** With key parts of your medical information directly at your fingertips, you can keep track of your medical conditions and more:
    - Communicate with your provider or nurse
    - View test results as soon as they become available
    - Review your immunizations, medications, allergies and medical history
    - Track conditions such as diabetes, asthma, COPD and congestive heart failure
    - View a requested copy of your medical record
    - Record daily health readings such as weight, glucose or blood pressure
- **Download the smartphone app:** When you access MyChart on a smartphone, you get instant access and convenience. Simply search "MyChart" in your mobile app store.
- **MyChart assistance:** If you have questions about your health issues, results, medications, immunizations or other general medical questions, contact your healthcare provider.

Prescription Opioids: What You Need to Know

Prescription opioids are medications that can help relieve moderate to severe pain. They are often prescribed after surgery. Though opioids can be an important part of your treatment, they also come with serious risks. It's important to work with your provider and Astera Health Orthopedics team to make sure you receive the safest, most effective care.

Minnesota Opioid Prescribing Guidelines

Using proven research and evidence-based practices, medical experts have created new guidelines for prescribing opioids. In Minnesota, these guidelines are called the Minnesota Opioid Prescribing Guidelines. They focus on controlling opioid use for pain and recovery from injuries and surgeries. Your expert providers at Astera Health use the Minnesota Opioid Prescribing Guidelines to make sure your opioid use is safe.

Prescription opioid use

If you are prescribed opioids for pain:

- Work together with your provider to discuss other non-opioid options for managing your pain and create a plan.
- Never take more than what is prescribed.
- Avoid alcohol.
- Tell your provider if you experience side effects.
- Never sell or share your opioids.
- Store your opioids in a protected place.
- Safely get rid of unused opioids using your community drug take-back program or your pharmacy mail-back program.

How to dispose of unwanted or unused medication

The best way to get rid of unwanted or unused medication is to bring it to an official medication disposal drop box. Do not flush medications down the toilet or drain. Before getting rid of medication, remove or black out your personal information on the label, but leave the name of the medication intact. Tightly seal all liquids or place in a sealed bag. If an empty bottle has a recycling number, rinse out the bottle and put it in a recycling bin.

Call your county sheriff's office, local police department or solid waste department to learn about drop box locations near you.

Visit www.cdc.gov/drugoverdose to learn more about the risks of opioid abuse and overdose.

Freedom From Smoking

Using tobacco/nicotine could affect your healing process and the longevity of your new joint, but don't worry. It's never too late to quit. No matter what age you are or how long you've been using nicotine, the effects of quitting are always beneficial.

Freedom From Smoking is a 12-week tobacco/nicotine cessation program that gives you customized weekly visits and support by your provider, a nicotine treatment specialist and Astera Health's care coordination team.

Why quit?

- Lower risk of disease and death
- Financial savings
- Healthier family
- Better role model for children in your life

When you quit, you get:

- Clearer skin, hearing and sight
- Lowered blood pressure, heart rate and cholesterol
- Decreased risk of heart disease
- Improved lung function
- Reduced risk of cancer and diabetes
- Stronger immune system, muscles and bones

Helpful hints:

- Set a quit date
- Get rid of triggers like ashtrays and spit bottles
- Change your routine to replace tobacco use with another task or hobby

If you are interested in Freedom from Smoking or if you have questions, contact your provider.

Health Care Directive

A health care directive is a written document that tells others about your health care wishes. It allows you to name a person or "agent" to make decisions for you if you are unable to do so. Under Minnesota law, anyone 18 or older can make a health care directive.

How do I prepare a health care directive?

Fill out a form, create your own or have an attorney prepare one. Your directive must:

- Be in writing and dated
- Include your name
- Be signed by you (or someone authorized to sign for you) when you still can understand and communicate your health care wishes
- Have your signature verified by a notary public or two witnesses
- Appoint an agent and/or instructions about the health care choices you want to make
- If you want help completing your health care directive or if you have questions, please contact Medical Social Services at 218-631-5228.

What should I include in my health care directive?

Your health care directive may contain many health-related items, including:

- The name of your designated agent, alternate agents or joint agents
- Your goals, values and preferences about health care
- The type of medical treatment you want or do not want
- How you want your agent(s) to make decisions
- Your desire to donate organs, tissues or body parts
- Your funeral arrangements; you may be as specific or general as you wish

What are the limits on my health care directive?

- Your agent must be at least 18 years of age
- Your agent cannot be your provider, unless the provider is a family member or you give a reason why your agent is your provider
- You cannot request health care treatment that is beyond reasonable medical practice
- You cannot request suicide assistance

How do I change my health care directive?

Your health care directive lasts until you change or cancel it. To cancel it, you can:

- Write a statement saying you want to cancel it
- Destroy it
- Tell at least two people you want to cancel it
- Write a new health care directive

Swing Bed Transitional Care

At Astera Health, we know you may need extra care to recover from your surgery. Our swing bed transitional care is an option you can consider for a short-term solution. It offers assistance in gaining personal safety, strength, coping and support. To ensure insurance coverage for your stay in swing bed transitional care, we will discuss your care needs with your provider.

The services we provide include:

- 24-hour nursing care
- On-site providers
- Physical, occupational and speech therapies
- Certified wound care nurse
- Medical Social Services
- Room service with fresh, nutritional meals
- Medication monitoring
- Referrals to community resources

What are the benefits?

You receive support and personalized care to help with your healing and recovery. A team of professionals works with you to design a care plan that best fits your needs and addresses your specific condition and reason for admission. Additionally, swing bed transitional care at Astera Health allows you to stay close to your home, your family and friends, and your provider.

Length of stay

The amount of time you spend in swing bed transitional care depends on the reason for your stay, your goals, provider recommendations and how well you heal.

Other information

Medicare covers swing bed transitional care. If you have private insurance, we can help you research the benefits of your plan. Typically, a hospitalization of three nights is required before a swing bed stay. The need for swing bed transitional care is determined by a team that includes your provider, physical and occupational therapists, etc. Prior authorization works with your insurance company to determine whether or not swing bed is a benefit covered by your insurance.

For more information, contact Medical Social Services at 218-631-5228.

Personal Support Coach

You are encouraged to choose a family member/close friend to be your personal support coach. He or she will support and encourage you to meet milestones during your recovery. We do recommend that your coach be available to stay with you and help care for you for at least 1-2 weeks after your surgery.
Recommended qualities in a coach:

C – Caring and compassionate cheerleader
O – Offers comfort and support during your recovery
A – Available to actively participate and help with your rehabilitation
C – Communicates with you and your healthcare team
H – Helps, listens and encourages your return to normal activity

Your personal support coach may also:

- Attend pre-surgery education class with you
- Be available during your hospital stay
- Go to therapy sessions with you
- Be with you as you receive your discharge instructions
- Be available to help you in your recovery after you leave the hospital

The coach's duties while you're in the hospital include:

1. Unpack the bags and pick out the first-day outfit.
2. Unpack the knee replacement guidebook and make sure it is nearby for reference and education sessions.
3. Remind you to use gel packs to help decrease your pain and swelling.
4. Attend and participate in therapy if possible.
5. Be involved in patient care to better prepare to assist at home (e.g., practice putting Ted stocking on non-surgery leg, help with exercises, etc.).

Patient Financial Services

Prior authorization

Prior authorization is a process used by insurance companies to determine if they will cover a recommended procedure, service or medication. Our prior authorization department will contact your insurance company for you to determine eligibility for your procedure. Prior authorization does not start this process until about 2-3 weeks prior to your procedure. This process may take up to 14 days. For more questions, feel free to contact prior authorization at 218-632-8191.

Price estimate

Astera Health's price estimating tool gives you accurate and complete procedure price estimates. This helps you make informed decisions about your care and limit surprises when you get your bill.
We do our very best to ensure our estimates are as comprehensive as possible, meaning they include all related costs. Our estimates include all services billed by Astera Health such as professional fees, any technical charges, supplies, anesthesia, etc. We can provide price estimates for surgical procedures, clinic visits, lab and radiology.

For an estimate, call our patient resource department at 218-631-7498 or visit us at our Wadena campus.

Uncompensated Care Program

We know that medical expenses are often unexpected and unplanned and may cause financial hardship for your family. If you are having trouble paying your bill, Astera Health's Uncompensated Care Program may be an option for you. This program provides services without charge or at a reduced rate for patients who have financial need.

You may stop in for individualized assistance or contact us at 218-631-7498. No patient is refused emergency care or is discouraged from using Emergency Medical Services, regardless of ability to pay.

Nutrition Therapy: By the Academy of Nutrition and Dietetics

Fiber and fluid may help you feel less bloated and can help ease constipation after surgery. Increase fiber slowly over the course of a few weeks, which will keep your symptoms from getting worse.

- You may choose any foods but try to find foods with whole grains.
- Slowly increase the amount of fiber you eat to 25 to 35 grams per day.
- Eat whole grain breads and cereals. Look for choices with 100 percent whole grains.
- Have brown or wild rice instead of white rice or potatoes.
- Enjoy a variety of grains such as barley, oats, farro, kamut and quinoa.
- Bake with whole wheat flour.
- Choose fresh fruits and vegetables instead of juices.
- Eat fruits and vegetables with peels or skins on.
- Drink at least 8 cups of water per day.
- If you are taking calcium or iron supplements, check with your doctor or registered dietitian. You may be able to take smaller amounts several times a day.

High-Fiber Foods	Amount	Total Fiber (g)
Bran cereal	1/3 cup	8.6
Cooked kidney beans	1/2 cup	7.9
Cooked lentils	1/2 cup	7.8
Cooked black beans	1/2 cup	7.6
Canned chickpeas	1/2 cup	5.3
Baked beans	1/2 cup	5.2
Pear	1	5.1
Soybeans	1/2 cup	5.1
Quinoa	1/2 cup	5
Baked sweet potato, with skin	1 medium	4.8
Baked potato, with skin	1 medium	4.4
Cooked frozen green peas	1/2 cup	4.4
Cooked frozen mixed vegetables	1/2 cup	4
Raspberries	1/2 cup	4
Blackberries	1/2 cup	3.8
Almonds	1 oz.	3.5
Cooked frozen spinach	1/2 cup	3.5
Vegetable or soy patty	1 each	3.4
Apple	1 medium	3.3
Dried dates	5 pieces	3.3

Your body needs protein to heal after surgery. If you are deficient in protein, you are less likely to heal as fast after surgery because your body does not have the nutrients it needs. If you do not have the best appetite after surgery, which is common, we recommend drinking a protein shake supplement such as Ensure or Boost.

High-Protein Foods	Amount	Protein (g)
Sirloin Steak	4 oz.	34.2
Chicken Breast	3 oz.	26.7
Cooked Ground Turkey	3 oz.	22.4
Cooked Ground Beef	3 oz.	22.0
Tuna, Drained	3 oz.	21.7
Salmon	3 oz.	18.8
Cottage Cheese	4 oz.	14.0
Tofu	3 oz.	12.8
Milk, Skim	8 fl. oz.	8.7
Lima Bean	1/2 cup	7.3
Cheddar Cheese	1 oz.	7.0
String Cheese	1 each	7.0
Kidney Bean	1/2 cup	6.7
Large Egg	1 each	6.3
Low-fat Yogurt	4 oz.	4.9
Almonds	1 oz.	3.5

Iron-rich foods fall into two categories:

Best Sources (Heme Iron) absorbed more easily by the body	**Plant-Based Sources (Non-Heme Iron)**
Beef, Lamb, and Pork	Lentils
Liver and other organ meats	Beans (kidney, black, navy, chickpeas)
Chicken and Turkey (especially dark meat)	Tofu and Tempeh
Fish (tuna, sardines, salmon)	Spinach and other dark leafy greens
Shellfish (oysters, clams, mussels, shrimp)	Quinoa
	Pumpkin Seeds and Sesame Seeds
	Cashews and Almonds
	Fortified Breakfast Cereals
	Oatmeal
	Dried Fruits (apricots, raisins, prunes)

Tips to increase iron absorption

Eat iron-rich foods with vitamin C-rich foods such as citrus fruits, strawberries, bell peppers, tomatoes, broccoli. Example: Add lemon juice to spinach salad or have an orange with iron-fortified cereal.

Foods that can reduce iron absorption

Try not to consume these at the same time as iron-rich meals: tea and coffee, calcium supplements.

PREPARING FOR SURGERY

Four Weeks Before Surgery

You might notice that you've been less active because of your knee joint discomfort. When muscles are not used, they become weak and do not perform well in supporting and moving your body.

Having your knee surgery will correct the joint problems, but you will need a regular exercise program to strengthen and stretch your muscles to support your new joint.

Also, remember that you need to strengthen your entire body, not just your leg. It is important that you strengthen your arms by doing chair push-ups (exercise No. 9) because you will rely on your arms to help you get in and out of bed, in and out of chairs, walk and to do your exercises after surgery.

Beginning an exercise program before surgery can greatly help your recovery.

The following pages list several exercises for you to work on before your surgery. Because everyone responds to exercise differently, you need to be the judge of how much exercise you can do each day. **If an exercise causes an increase in discomfort, stop doing that exercise**.

You should try to exercise one to two times a day, every day, before surgery. Work up to doing 10 to 20 repetitions of each exercise. It may be helpful to do these exercises on both legs.

For the most comfort, do the exercises lying down. Your bed is an excellent place to do your exercises.

Pre-surgery knee exercises

(See the following pages for descriptions)

1. Ankle pumps	20 reps	2 times/day
2. Thigh squeezes	20 reps	2 times/day
3. Leg slides	20 reps	2 times/day
4. Heel slides	20 reps	2 times/day
5. Lying kicks	20 reps	2 times/day
6. Straight leg raises	20 reps	2 times/day
7. Knee stretch	20 reps	2 times/day
8. Knee bend stretch	20 reps	2 times/day
9. Chair push-ups	10 reps	2 times/day

Knee Exercises – Before Surgery

1. Ankle pumps – Pull your feet toward you, then push them away from you. After completing 20 pumps, you may make circles clockwise and counterclockwise with your feet if you wish.

2. Thigh squeezes – Place a towel roll under your knee. Tighten your thigh muscle by pushing the back of your knee down into the bed. **Hold for 5 seconds and relax.**

3. Leg slides – Slide your surgical leg to the side, keeping your knee pointed toward the ceiling. Slide your leg back to the starting position. Use a plastic bag or flat, smooth object to help it slide.

4. Heel slides – Slide your surgical heel toward you, keeping your heel on the bed and knee pointed toward the ceiling. Slide your heel back to the starting position and relax. Use a plastic bag or flat, smooth object to help it slide.

5. Lying kicks – Place a blanket roll or towel (at least 6 inches in diameter) under your surgical knee. Lift your leg. **Hold for 5 seconds**. Lower your leg and relax. Your knee should stay in contact with the blanket or towel.

6. Straight leg raises – Bend your healthy leg with your foot flat on the bed. Lift your surgical leg about 12 inches, keeping your knee straight and ankle bent toward you. **Work up to holding for 5 seconds.** Slowly lower your leg and relax. You may start with 2 sets of 10 reps, but should work up to doing 20 reps as able.

7. Knee stretch – Sit down with your surgical leg resting on a chair in front of you. Add a towel roll under your ankle to increase the stretch. **Hold for 30-60 seconds. Stretch 2-3 times.**

---

8. Knee bend stretch – Sit down on a chair and bend your surgical leg as far as you can without causing pain. Minimal discomfort is acceptable. If desired, use your non-surgical leg to press on your surgical leg to increase the stretch. **Hold for 30-60 seconds. Stretch 2-3 times.**

9. Chair push-ups – Sit on a sturdy chair with armrests. Holding the armrests, push down and straighten your elbows to raise off the seat a few inches. **Work up to holding for 5 seconds.** Slowly lower yourself back onto the chair. If your arms are weak, use your legs to help lift.

Notes:

Two Weeks Before Surgery – Pre-Surgery Exam

The purpose of a pre-surgery exam is to evaluate and/or determine other testing to prepare patients who may be at higher risk for complications after surgery. A pre-surgery exam can help the surgical team identify risk factors that might complicate your recovery.

Your exam should be scheduled with your primary care provider's office 10-14 days before your surgery. Your surgeon will send orders to your provider for blood work, and EKG. These tests should be completed with the pre-surgery appointment. If you are on Coumadin (warfarin), Plavix or aspirin, your provider will tell you about the need to stop taking these medications before surgery. Depending on your provider's findings, you might be required to consult with other providers such as a cardiologist. Please stop taking over the counter blood thinner medications such as Aspirin, Ibuprofen, Advil, Motrin, Aleve, and Naproxen 1 week prior to surgery.

Gather supplies

We ask that you gather in advance the needed supplies for after surgery. This will allow you to have all your supplies readily available during your recovery.

- ☐ Walker with wheels (bring with you to the hospital)
- ☐ Sterile surgical dressings, 8"x10" ABD pads (approx. 14 pads)
- ☐ Press and seal plastic wrap (located in the grocery store by the saran wrap)
- ☐ Hand sanitizer
- ☐ Gel Ice Packs
- ☐ Cane (optional)
- ☐ Raised toilet seat (optional)
- ☐ Shower chair (optional)
- ☐ Sock aid (optional)

Notify surgeon of any pre-surgery illness or infection

If you develop a minor illness such as a cold, flu, sore throat, fever, etc., please contact the surgery coordinator at your surgeon's office.

One Week Before Surgery

Prepare your home for your return. Remove all throw rugs from your kitchen and dining rooms. Some patients find it helpful to prepare meals in advance and freeze them or arrange for a family member or coach to prepare meals for you. Make arrangements for your mail pickup and pets while you are hospitalized.

Three Days Before Surgery – Preventing Complications

Before surgery, your skin should be as bacteria-free as possible to prevent infections after your procedure. Follow the instructions below regarding the use of Chlorhexidine Gluconate (CHG) solution and scrub.

1. Shower normally using your soaps and shampoos. Rinse off thoroughly.
2. Apply one-third of the bottle of CHG to a wet washcloth and scrub your entire body. Avoid scrubbing your face or genital areas.
3. Let the CHG soak on your skin for at least one minute. Then rinse thoroughly.
4. Showers are the preferred method for a CHG wash, but you may take a bath if you do not have access to a shower. Take a bath normally, then drain the tub. Wash with the CHG soap using the directions above, let sit for one minute, and then draw a new bath to rinse.

Two Days Before Surgery – CHG Liquid

Repeat the instructions above for washing with CHG soap.

One Day Before Surgery – CHG Liquid and Cloths

Liquid

Repeat the instructions above for washing with CHG soap. Wait one hour after your shower before using the cloths if you shower in the evening.

Cloths

The surgeon's office will give you a packet of 2-percent CHG cloths. Use CHG cloths in the evening before you go to bed.

1. Gently scrub the surgical area with one cloth for three minutes. You should also scrub halfway down your lower leg (front and back) and halfway up your thigh (front and back). Do not rinse your knee.
2. Repeat the process with a second cloth. Scrub for an additional three minutes. Do not rinse.
3. Wash your hands thoroughly after scrubbing and avoid touching your eyes.

Note: Your skin might feel tacky after scrubbing. This will go away when your skin dries.

You may shower the morning of your surgery if you wish.

Important notes when using the scrub

- Do not shave your leg for two days prior to scrubbing with CHG because it can irritate newly shaved skin.
- Scrub the surgical area gently to avoid irritating the skin.
- You might notice a faint odor on your skin after washing with CHG. This is normal. It means that it is working and killing bacteria.
- If you develop a rash, immediately stop using CHG. However, you must complete the pre-surgery wash with the CHG cloths the night before your surgery.

Why is CHG important?

- CHG soap reduces potentially harmful bacteria on your body to protect from infection.
- CHG cloths kill germs on contact and continue killing micro-organisms after use.

48-72 Hours Prior to Surgery

You may be contacted by the joint care coordinator to schedule a final blood test prior to surgery called a Type and Screen. This blood test cannot be done at your preoperative appointment as it needs to be done within 72 hours of your surgery. This blood test determines your blood type and screens for any antibodies. This is done so that we have the information in the event you need a blood transfusion during your surgery or hospitalization. This is not a fasting blood test.

Find out Your Arrival Time – Two Business Days Before Surgery

The joint care coordinator will call two days before (or the Thursday before if you have a Monday surgery) to tell you the scheduled arrival time. You should come to the hospital 1 1/2 hours before the scheduled surgery to give the nursing staff enough time to start IVs, prep and answer questions. It is important that you arrive on time in case the surgical time is moved up at the last minute. If you are late, it might 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.

If you have questions about your arrival time, call the joint care coordinator at 218-632-8768 during business hours. On weekends or after hours, call 218-631-3510 and ask for the nursing supervisor.

Pre-Surgery Checklist

4 weeks before surgery:

- ☐ Attend joint education with your coach.
- ☐ Give FMLA/LOA employment forms to your surgeon.
- ☐ Inspect your chairs at home. Make sure you have a comfortable but firm armchair to use. Low couches/chairs are not acceptable as they may be difficult for you to get out of.
- ☐ Assess your stairs at home. Stairs can be a potential hazard. Rehab staff will teach you how to safely negotiate a single step and to use the stairs with a railing and a cane. If you have stairs at your home with more than one step and no railing, now is the time to install a railing for safety.

2 weeks before surgery:

- ☐ Collect the supplies and equipment from the shopping list that you'll need at home.
- ☐ Now is the time to see your primary care provider (and cardiologist if applicable) for a pre-surgery exam. Review all medications and supplements at that time. Blood thinners may need to be stopped as directed by your provider.

1 week before surgery:

- ☐ Get your house ready for when you return home.
- ☐ Plan your ride home from the hospital. A minivan or SUV is preferred for ease. For cloth seat vehicles, place a trash bag in the glove box so it is available to place on the seat to aid you in sliding into and out of the vehicle.
- ☐ Set up your after-surgery physical therapy appointments at the rehabilitation office of your choice.
- ☐ Three days before surgery, begin the daily shower/bath routine with 4-percent Chlorhexidine Gluconate (CHG) soap according to the instructions on Page 23.

Two days before your surgery:

- ☐ The joint care coordinator will call to tell you when you should arrive at Astera Health.

Day before your surgery:

- ☐ Pack your suitcase. Remember to bring your knee replacement guidebook.
- ☐ On the evening before surgery, use the 2-percent CHG no-rinse cloths on your surgical joint according to the instructions on Page 23.
- ☐ Do not eat or drink anything after midnight.
- ☐ Clean your walker with bleach wipes or solution and bring it with you to the hospital.

Hospital Packing Checklist

DO bring:

- ☐ One day's worth of comfortable, loose clothes that are easy to put on and take off, mesh shorts or sweatpants
- ☐ Your insurance card and expected payment
- ☐ Your health care directive, if you have one (see Page 11 for more information)
- ☐ CPAP machine, if you use one at home
- ☐ Glasses/contacts, hearing aids or dentures, including a storage container for these items with your name on it
- ☐ Personal hygiene items such as toothbrush, comb, skin care products, deodorant (all of these items are optional; the hospital can provide most of them)
- ☐ An electric razor if you want to shave while here
- ☐ The walker you currently use or bought for after surgery
- ☐ Any adaptive devices you need
- ☐ Flat, supportive, non-slip shoes, such as walking or athletic shoes, with room for feet that will be swollen. Please bring shoes that have a back on them. Slip-on shoes or boots are not ideal.
- ☐ **Remember this guidebook**

Do NOT bring:

- Good clothing as it may become soiled
- Robes or slippers
- Medications, unless specifically told to do so
- Jewelry and money

DAY OF SURGERY

When You Arrive

- Park in the south patient lot and enter through the emergency entrance.
- Check in with patient registration/admitting. You will be escorted to your room.
- A nurse will complete an admission assessment, start your IV and clean the surgical area.
- You will wash one more time with a CHG cloth and learn how to use Nozin (Page 34), a nasal sanitizer, to reduce your risk of infection.
- You will be asked to sign a consent form for surgery if you have not already done so.
- A member of your surgical team will talk with you about the surgery and verify which joint is to be replaced.
- A certified registered nurse anesthetist will review your medical history and help you decide which type of anesthesia you will receive.
- Please ask questions.

Anesthesia: What You Need to Know

Anesthesia is a combination of medicines that blocks the feeling of pain and lowers your awareness during surgery. The type of anesthesia used depends on your surgery, medical and surgical history, and physical condition. Before your surgery, a certified registered nurse anesthetist (CRNA) will help you decide which anesthesia is best for you. You will receive other medicine to give you pain relief during and after surgery.

Who are the anesthetists?

The operating room and post anesthesia care unit at the hospital are staffed by CRNAs. Each CRNA is an individualized practitioner with privileges to practice at this hospital.

What types of anesthesia are available?

The type of anesthesia for your knee surgery will be tailored to you based on your individual needs. The CRNA will discuss the anesthesia care plan before your surgery. The most common anesthesia is a combination of heavy intravenous (IV) sedation along with local anesthesia. The IV sedation helps you stay very comfortable during the surgery. Most commonly, the local anesthetic technique is in the form of a spinal anesthetic. However, an epidural is occasionally used. The spinal anesthetic is also enhanced with other nerve blocks to further help in your after-surgery comfort.

During surgery, what does my anesthetist do?

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

Types of Anesthesia

Type	Definition	Benefits	Side Effects
Spinal peripheral nerve block (catheter) or one-time shot	A numbing medicine (local anesthesia) blocks the pain in your knee. You'll receive a mild sedative and a shot of local anesthesia by the nerves on the front of the knee. The catheter may be placed near the groin or halfway down the thigh.	• Fewer pain medications after surgery • Improved pain relief • Improved physical therapy results	• Numbness near the surgery area • Weakness in surgical leg Ask for help walking to avoid injury after surgery.
Regional anesthesia	Regional anesthesia blocks sensations to a limited area of your body. A light sedation relieves anxiety while anesthesia is given by a shot. An injection between your vertebrae, called spinal anesthesia, numbs the lower half of your body for three to four hours. Epidural anesthesia lets you receive pain medicine after surgery through a thin plastic tube (catheter) inserted into your spine.	• Faster wake-up time • Less chance of nausea • Less stress on your heart and lungs • Pain relief after surgery	• Headache • Itching • Trouble urinating Side effects typically fade in a few days. Inform a member of your health care team if you experience side effects.
General anesthesia	General anesthesia puts you to sleep during surgery and is given by shot or inhalant. A breathing tube will be used to help you breathe during the anesthesia.	• Better for longer or more involved surgeries • Keeps you comfortable during surgery	• Sore throat • Headache • Hoarseness • Nausea • Drowsiness Side effects typically fade in one day. Tell a member of your health care team if you experience side effects.

Post Anesthesia Care Unit (PACU)

- After surgery, you will be taken to the recovery room or post anesthesia care unit (PACU).
- Most people stay about one hour in the PACU. Your time in the PACU will depend on your surgery and how fast you recover from anesthesia.
- A nurse will monitor your vital signs and help if you have side effects from anesthesia.
- You might have discomfort and pain when you wake up. Your nurse will work with you to make you as comfortable as possible.
- An X-ray may be taken of your new joint in the PACU.

YOUR HOSPITAL STAY

You will stay in a private room while here at Astera. The Astera Health nursing team consists of professional registered nurses (RN) and certified nursing assistants (CNA). Their main focus is to help you recover as quickly and as comfortably as possible. The team will provide encouragement and support as you make steps toward recovery.

You will feel some discomfort, which is normal after surgery. You will be provided with pain medication to help lower the amount of discomfort you experience. **Some pain will continue despite the use of pain medications.** Remember that everyone experiences pain at different levels and intensities. Your health care team recognizes that managing your pain appropriately will help in your recovery and healing process. The staff will refer to a pain scale of 0 to 10 (0 being no pain and 10 is the worst pain you could imagine) and will ask you to rate your pain. **Please let your nurse know as soon as you feel the first sign of pain because your pain is easier to manage at a low level.**

Safety at the Hospital

- You will be asked for your name and date of birth many times.
- Always use the call light when you want to get out of bed. You will be attached to many pieces of equipment that will need to be disconnected to allow you out of bed safely.
- Always use slip-resistant socks provided to you by the hospital when up and walking. Don't get out of bed with only compression stockings on.
- Please ask questions.

What Can You Expect While Hospitalized?

- Frequent checks by the nurse
- Pain management
- Bruising and swelling (increases 7-10 days after surgery)
- Physical and occupational therapy
- Increasing activity each day
- Stockings/devices on your legs to promote circulation
- Laboratory tests

What to Expect Each Day

(The length of your hospital stay depends on progress and health status)

Day of surgery:

- Frequent vital sign checks and assessments
- Receiving oxygen as needed
- Incision covered with a dressing
- Oral pain medication will be started
- Lovenox injection (blood clot prevention medicine)
- Clear liquid diet, advancing to regular diet as tolerated
- Infusion of fluids through an intravenous (IV) catheter
- Nozin nasal sanitizer administered
- Cold therapy with gel ice packs
- Sitting on edge of bed, walking to bathroom, walking in hallways by evening
- Physical therapy evaluation in the afternoon
- Discharge planning and questions for health care team

Day after surgery:

- Morning blood draw
- Assistance with getting dressed in comfortable clothes
- Incision still covered; surgical dressing may be changed
- Lovenox injection (blood clot prevention medicine)
- Cold therapy with gel ice packs
- Assistance with walking in the hall and sitting up in chair, progressing to walking independently several times a day in the halls
- Group physical therapy session in morning and afternoon; occupational therapy in morning
- Learning to do exercises independently
- Expected discharge

Patients who can complete the following may return home as soon as the day after surgery:

- Adequate pain control
- Minimal assistance with dressing and walking
- Understanding of infection and blood clot prevention

GOING HOME

Discharge Instructions

1. Use your walker for all walking until you see your provider.
2. Walk every day, but don't overdo it.
3. Wear your TED stockings (Page 50) for two weeks or until seen by your provider. You may remove them for one to two hours twice a day to wash the stockings and bathe your legs.
4. Continue your assigned physical therapy exercises (Page 37).
5. Avoid any activity that requires kneeling until your provider allows.
6. You may shower at home but be sure to keep the surgical area covered and dry by using press and seal plastic wrap.
7. Change your dressing daily until your 2 week follow up appointment. Use the 8"x10" ABD pad held in place by your TED stockings. Do not touch your incision.
8. Report any of the following to your doctor:
   a. Increased uncontrolled pain
   b. Drainage or redness at the incision site (there should be no drainage after five days)
   c. Fever higher than 101 degrees
   d. Numbness or tingling in your leg
   e. Injury to your leg
9. Refrain from dental work including cleanings or procedures for 12 weeks after surgery. You will need to notify your surgeon's office for antibiotic treatment prior to your visit to the dentist for one year after your surgery. This is to prevent an infection in your new joint.
10. Apply gel ice pack to knee while at rest. Use gel ice pack during the day, up to 20 minutes at a time. Place a protective layer (thin cloth) between the skin and sleeve. Take at least a 20-minute break in-between icing. Do not leave the ice pack on overnight. Most patients will use gel packs for several weeks after surgery.
11. Use Nozin (Page 34) twice a day (morning and evening) for eight days after surgery.
12. You may alternate taking 600 mg Ibuprofen with 650 mg Acetaminophen every 3-4 hours as needed for pain control. You may also take your prescribed pain medication as directed.
13. For medication refills or if the bottle shows you have 0 refills, please contact your surgeon's office directly. This will expedite your refill request.

Medications Prescribed for Home Use

Pain Medication (Oxycodone or Hydrocodone)

You will be prescribed one of the above opioid pain medications to take at home. Take this medication as prescribed for moderate to severe pain. This medicine can impair judgement and decision making, make you drowsy, nauseated and/or dizzy. Drink plenty of water and eat lots of fiber as opioid induced constipation is a common side effect from this medication.

Hydroxyzine HCL (Atarax) or Hydroxyzine Pamoate (Vistaril)

This is a broad medication used for nausea, itching, anxiety, and **muscle spasms or muscle pain**. Hydroxyzine may cause drowsiness so it may be best to take this medication at a time where you can rest and/or at bedtime.

Acetaminophen (Tylenol)

Acetaminophen can help provide pain control after surgery. You may take up to 650mg of Acetaminophen per dose. You may alternate Acetaminophen with Ibuprofen every 3-4 hours, or you may alternate Acetaminophen with your opioid pain medication.

* If you are prescribed Hydrocodone for pain medication after surgery, do NOT take 650mg of Acetaminophen. Hydrocodone already has Acetaminophen in it so only take 325mg of Acetaminophen per dose if you are alternating it with Hydrocodone.

Ibuprofen (i.e., Advil, Aleve, Motrin)

Helps control mild to moderate pain after surgery. You may take up to 600 mg of Ibuprofen per dose. You may alternate Ibuprofen with Tylenol every 3-4 hours, or you may alternate Ibuprofen with your pain medication.

*Do NOT take Ibuprofen if you are on a blood thinner or have other contraindications to NSAIDS.

Sennosides-docusate sodium (Sennakot-S/Senna Plus)

Senna Plus is a laxative that can help with constipation after surgery. As you wean off your opioid pain medications, you can also wean off the Senna Plus.

Aspirin

Aspirin (325 mg) is taken daily for 30 days to decrease the risk of developing blood clots in your legs and/or lungs. It is important that you take your aspirin daily if it is prescribed to you.

Nozin®
NASAL SANITIZER®
NOZASEPTIN® FORMULA ADVANCED ANTISEPTIC

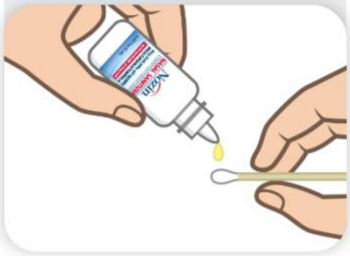
Quick Reference Guide - Multidose 12mL Bottle

Preparation
Clean nostrils with a tissue.

1 Shake

Shake bottle well, remove cap

2 Saturate



Apply four (4) drops of solution onto cotton swab tip

You will use Nozin twice a day (morning and evening) for ONLY eight (8) days after your surgery.

Application
Right nostril

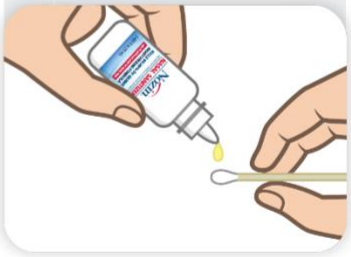
1 Swab*

Ensure swab rotation covers all surfaces, including the **inside tip of the nostril**

2 Swab

Rotations per nostril: 16

3 Resaturate



Re-saturate the swab tip by applying two (2) drops of solution

4 **Repeat Application Steps** in left nostril. Discard swab after use.

***Do not extend swab into nose beyond swab tip.**
Caution: Do not use if the patient has an allergy to orange oil or any of the ingredients, a history of nasal bleeding or irritation.

Scan for video instructions

Intended Use: Nozin® Nasal Sanitizer® is a topical antiseptic used to decrease bacteria on the nasal vestibule skin.
Active Ingredient: Alcohol 62% **Inactive Ingredients:** jojoba, water, orange oil, lauric acid, benzalkonium chloride, vitamin E
Please read entire product package prior to use. Apply to skin only.
Advanced Antiseptic for daily decolonization. 12mL Bottle. SKU: NNS11212

Read all Drug Facts and Directions on packaging before use. Do not use if you have allergies to any of the ingredients.
Questions? Call: 1-877-669-4648 Online: Nozin.com ©2024 Global Life Technologies Corp. All rights reserved. Made in USA. Nozin®, Nasal Sanitizer®, Popswab®, Nozaseptin® are trademarks of Global Life Technologies Corp.
Nozin® Nasal Sanitizer® antiseptic is an OTC topical antiseptic drug intended to decrease bacteria on nasal vestibule skin. No claim is made that it has an effect on any specific disease. Patent Nos.: nozin.com/patents.

4QRG0828

You will use Nozin twice a day (morning and night) for <u>only</u> eight (8) days after surgery.

POSSIBLE COMPLICATIONS

Blood Clots

Patients who have surgery are at risk for a complication known as deep vein thrombosis (DVT). It happens when a blood clot forms deep inside a vein, most commonly in the thigh or calf. It can happen after any major surgery, not just total joint replacements, and those who have surgery on their legs or hips are at a higher risk.

Warning signs of blood clots:

- Pain in your leg or calf that is unrelated to your surgical incision
- Redness or tenderness around your knee
- Swelling in your thigh, ankle, calf or foot

If you experience these symptoms, immediately contact your surgeon.

Pulmonary Embolism

Another risk for after-surgery patients is pulmonary embolism, which happens when a blood clot breaks free and moves through the veins. It is possible for this clot to reach the lungs and heart and block the blood flow, which could lead to death.

Warning signs of pulmonary embolism:

- Shortness of breath that comes on suddenly
- Chest pain, especially when breathing

If you experience any of these symptoms, immediately call 911.

Preventing Complications

Your Astera Health Orthopedics team is committed to preventing complications after your surgery. This plan may include elevating your legs, lower leg exercises, support stockings and medication. Follow all instructions to reduce your risk for blood clots in the first several weeks of recovery.

- Follow your therapy program.
- Take Aspirin or other prescribed medications every day for 30 days.
- Wear TED stockings.
- Be as active as possible.

Infections

- Wash hands.
- Avoid lotion/creams for one month.
- Change bandage daily.
- Report increased pain, redness, drainage or odor immediately.

HOME EXERCISE PROGRAM

Your leg muscles may feel weak after surgery because you did not use them much when you suffered from knee problems. Surgery corrected this problem. Your home exercise program will include activities to reduce swelling and increase your knee motion and strength. This will help you move more easily and get back to doing the activities you enjoy.

Your success with rehabilitation largely depends on your commitment to following the home exercise program (beginning on the next page) developed by your therapists.

Swelling:

It is important to keep swelling down after surgery. You can do this by:

- Putting a cold pack on your knee
- Exercising your muscles using ankle pumps
- Balancing activity with rest
- Lying flat with your leg at or above the level of your heart

Range of motion:

It is important to work on your knee motion (bending and straightening) after knee replacement surgery. This will help you walk without a limp and get up and down easier from a chair, toilet or bed. You can do this by:

- Doing knee bending and straightening stretches as directed by your therapist
- Sitting with your knees bent during mealtimes
- Not resting with your knee bent over a pillow

Walking:

It is important to walk often throughout the day. This will help you get back to walking outside and in the community. You can do this by:

- Walking around your home using a front-wheel walker, crutches or a cane your therapist instructed you to use
- Walking with the “heel-toe” pattern that your therapist taught you (to keep you from walking with a limp)
- Gradually increasing the distance, you walk

Follow any additional instructions given to you by your health care provider or therapist.

Total knee replacement after-surgery exercises and goals – activity guidelines

Exercising is important to get the best results from total knee surgery. You may receive exercises from a therapist at an outpatient facility or at home. In either case, you need to participate in an ongoing home exercise program. After each therapy session, ask your therapist to mark the exercises in your guidebook. These goals and guidelines are listed on the following pages.

Weeks 1-2

During Weeks 1-2 of your recovery, your goals are to:

- Continue using your walker unless otherwise instructed
- Walk at least 300 feet with support
- Bend your knee at least 90 degrees
- Completely straighten your knee
- Slowly resume everyday tasks
- **Complete 20 reps each of home exercises twice daily**

*Track your progress using the table on Page 57.

1. Ankle pumps – Pull your feet toward you, then push them away from you. After completing 20 pumps, you may make circles clockwise and counterclockwise with your feet if you wish.

---

2. Thigh squeezes – Place a towel roll under your knee. Tighten your thigh muscle by pushing the back of your knee down into the bed. **Hold for 5 seconds and relax.**

3. Leg slides – Slide your surgical leg to the side, keeping your knee pointed toward the ceiling. Slide your leg back to the starting position. Use a plastic bag or flat, smooth object to help it slide.

---

4. Heel slides – Slide your surgical heel toward you, keeping your heel on the bed and knee pointed toward the ceiling. Slide your heel back to the starting position and relax. Use a plastic bag or flat, smooth object to help it slide.

---

5. Lying kicks – Place a blanket roll or towel (at least 6 inches in diameter) under your surgical knee. Lift your leg. **Hold for 5 seconds.** Slowly lower your leg and relax. Your knee should stay in contact with the blanket or towel.

6. Straight leg raises – Bend your healthy leg with your foot flat on the bed. Lift your surgical leg about 12 inches, keeping your knee straight and ankle bent toward you. **Work up to holding for 5 seconds**. Slowly lower your leg and relax. You may start with 2 sets of 10 reps but should work up to doing 20 reps as able.

---

7. Knee stretch – Sit down with your surgical leg resting on a chair in front of you. Add a towel roll under your ankle to increase the stretch. Place an ice pack over the knee. Add a 5-pound soft weight on your knee, working up to 10 pounds. **Hold for 30-60 seconds. Stretch 2-3 times.**

---

8. Knee bend stretch – Sit down on a chair and bend your surgical leg as far as you can without causing pain or discomfort. If desired, use your non-surgical leg to press on your surgical leg to increase the stretch. **Hold for 30-60 seconds. Stretch 2-3 times.**

9. Chair push-ups – Sit on a sturdy chair with armrests. Holding the armrests, push down and straighten your elbows to raise off the seat a few inches. **Work up to holding for 5 seconds.** Slowly lower yourself back onto the chair. If your arms are weak, use your legs to help lift.

Notes:

Weeks 3-4

During Weeks 3-4, you will regain more independence. Even if you receive outpatient therapy, you will need to be faithful to your home exercise program to achieve the best outcome. Your goals for this period are to:

- Achieve the goals set during Weeks 1-2
- Transition from full support to a single crutch or cane as instructed
- Walk at least a quarter mile every day
- Walk up and down a flight of stairs (12-14 steps) more than once daily, one foot at a time
- Bend your knee more than 90 degrees
- Completely straighten your knee
- Independently shower and dress, using support if needed
- Resume all homemaking activities
- If you wish to drive, you must get permission from your orthopedic surgeon
- **Complete 20 reps each of home exercises twice daily**

*Track your progress using the table on Page 58.

1. Wall quarter squat – With your feet shoulder-width apart and back to a wall, slide down the wall as far as you are comfortable. Return to upright position. Do this with your therapist first. **Do not bend your knees enough to cause pain.**

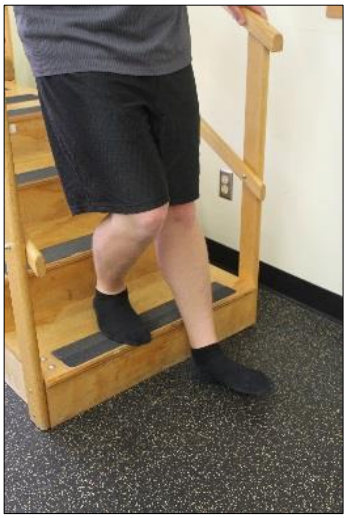
2. Ankle dorsiflexion/plantar flexion – While standing, hold on to a firm surface. Raise up on toes. Go back on heels.

3. Quarter squat/hip flexion – While standing, hold on to a firm surface and march in place.

4. Forward step-up – Step forward onto a step with your surgical leg, then the other. Step off. The height of the step will depend on your strength. **Start low, about 2 to 4 inches.** You may exercise non-surgical leg as well. **Please do this with your therapist first.**

---

5. Retro step-up – Step backward onto a step with one foot, then the other. Step off. Do this with your therapist first. Ask the therapist how high the step should be. **Start low, about 2 to 4 inches.**



6. Prone knee bend stretch – Lying on your stomach, bring your surgical heel toward your buttocks as far as possible. Have someone help you complete this stretch by gently pressing on your leg. If this bothers your back, place a pillow under your stomach. **Hold for 30-60 seconds. Stretch 2-3 times.**

Scar Massage

Start scar massage four weeks after surgery. Do this by placing the pad of your fingertip on your scar area. Apply steady downward pressure while moving in a circular fashion. Use another finger on top to assist. Repeat until entire scar has been worked/massaged. Do this 2-3 times throughout the day. You may use vitamin E oil, Palmer's cocoa butter formula, or other lotions and skin moisturizers if you wish.

Notes:

_____

_____

_____

_____

_____

_____

Weeks 5-6

Weeks 5-6 will see much more recovery to full independence. Your home exercise program will be even more important as you receive less supervised therapy. During this period, you will transition to home physical therapy or using the wellness center on your own. Your therapist can instruct you on how to appropriately use the equipment at the wellness center. Your goals for this time period are to:

- Achieve the goals set during Weeks 1-4
- Walk using a cane or single crutch
- Walk a quarter to a half mile daily
- Progress from one foot at a time on stairs to foot-over-foot climbing
- Bend your knee 110 degrees
- Completely straighten your knee
- Drive a car
- Begin exercises in warm-water therapy pool
- After Week 6, return to work periodically
- **Complete 20 reps each of home exercises twice daily**

*Track your progress using the table on Page 59.

It is common to experience aching and soreness even six weeks after surgery. This is normal as your activity level increases. Relaxation techniques such as deep breathing, reading before bed and using ice packs can help to ease discomfort and give you better rest and relief.

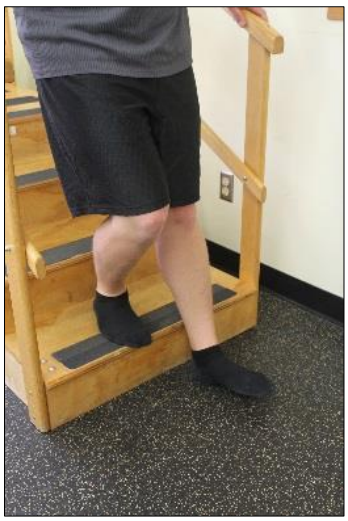
1. Wall quarter squat – With your feet shoulder-width apart and back to a wall, slide down the wall as far as you are comfortable. Return to upright position. Do this with your therapist first. **Do not bend your knees enough to cause pain.**

2. Deep squat – Stand with your feet shoulder-width apart and lower as far as you are comfortable. Return to upright position. Do this with your therapist first.

---

3. Forward step-up – Step forward onto a step with your surgical leg, then the other. Step off. **Increase step height to 6 to 8 inches.** You may exercise your non-surgical leg as well.

4. Retro step-up – Step backward onto a step with one foot, then the other. Step off. **Increase step height to 6 to 8 inches.**



---

5. Side step-up – Step sideways onto a step with your surgical leg, then the other. Step off. **Increase step height to 6 to 8 inches.**

6. Lunges – Holding on to a firm surface, step forward with your surgical leg and lower until your knee is bent 30 to 45 degrees. Return to upright position. Do this with your therapist first.

7. Lateral lunges – Stretch your non-surgical leg out to the side and bend your surgical leg until your knee is bent 30 to 45 degrees. Do this with your therapist first.

Weeks 7-12

During Weeks 7-12, you should be able to begin resuming all of your activities. Start resuming your normal activities slowly and increase as tolerated. It may take several weeks until you feel you have resumed your normal activities. Your goals for this time period are to:

- Achieve goals set during Weeks 1-6
- Walk independently without limping
- Normally climb and descend stairs (foot over foot)
- Walk a half to one mile daily
- You may begin to bike 1-2 miles a day
- Bend your knee to 120 degrees
- Completely straighten your knee
- Increase your strength to 80 percent
- Resume all activities

OCCUPATIONAL THERAPY

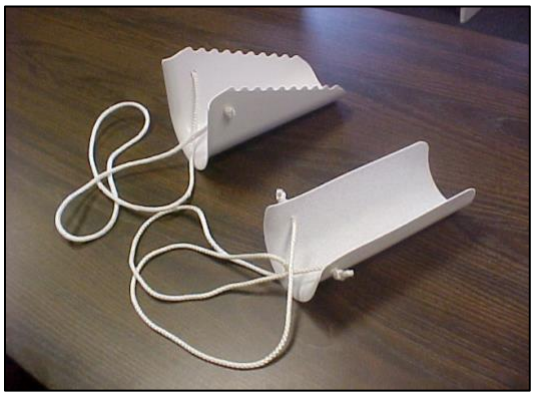
Stockings

You will be asked to wear special TED stockings. These stockings squeeze the veins in your leg to keep swelling down and reduce the chance for blood clots.

- If swelling in the surgical leg creates discomfort, elevate the leg for short periods throughout the day. It is best to lie down and raise your leg above heart level.
- You may need assistance putting on or removing TED stockings or may need to use a sock aid.
- Wear the stockings continuously, removing for one to two hours twice a day.
- Tell your provider if you notice increased pain or swelling in either leg.
- Ask your surgeon when you can stop wearing the stockings. Usually this will be done 2 weeks after surgery.
- TED stockings can be washed with a small amount of dish soap and warm water in a sink. Create suds in your hands and wash stockings, rinsing thoroughly. TED stockings will air dry within a few hours.

How to use a sock aid:

1. Slide the sock all the way onto the sock aid. Use gloves to improve grip.
2. Hold the cord and drop the sock aid on the floor 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 downward and pull the sock on. Keep tugging until the sock aid pulls out.



Daily Living Activities

Your occupational therapist will help you determine if you need special equipment for lower body dressing. You are encouraged to dress as independently as possible because it encourages active knee motion.

Using a Reacher

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

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 waistband over your foot.
3. Using the reacher, 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/pants down to your knees.
3. Lower yourself onto the chair or bed, keeping your surgical leg out straight.
4. Take your non-surgical leg out first and then the surgical leg.

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. Match the curve of the shoehorn to the curve of your shoe.
3. Lean back, if necessary, as you lift your leg and place your toes in your shoe.
4. Step into your shoe, sliding your heel down the shoehorn.

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

Transfer – Toilet:

You may need a raised toilet seat or a three-in-one bedside commode over your toilet for 12 weeks after surgery.

Sitting down on the toilet:

1. Take small steps and turn until your back is to the toilet. Never pivot.
2. Back up to the toilet until it touches your legs.
3. If you have a commode with armrests, use them to lower yourself onto the toilet.
4. Keep your surgical leg extended when sitting down.
5. If using a raised toilet seat without armrests, keep one hand on the walker or counter while reaching back for the toilet seat with the other.

Getting up from the toilet:

1. Slide your surgical leg out in front of you.
2. If using a commode with armrests, use them to push yourself up. If without armrests, place one hand on the walker or counter and push off the toilet seat with the other.
3. Balance yourself before grabbing the walker.

NOTE: Your occupational therapist may recommend a toilet seat riser, toilet seat frame, or commode with grab bars.

Transfer – Tub:

Getting into the tub using a tub transfer bench:

1. Place the tub transfer bench facing the faucet.
2. Back up to the bench until you feel it on the back of your knees.
3. Reach back with one hand for the bench. Keep the other hand on the walker.
4. Slowly lower yourself onto the bench, 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 or Thera-Band for the surgical leg.

- Although tub transfer benches, grab bars, long-handled bath sponges, and hand-held showers make bathing easier and safer, they are typically not covered by insurance.
- ALWAYS use a rubber mat or non-skid adhesive on the bottom of the tub or shower.

- To keep soap within easy reach, make a soap-on-a-rope by placing a bar of soap in the toe of a pair of pantyhose and attach it to the tub transfer bench.
- Be sure the tub transfer bench is a good height for you.

Getting out of the tub using a tub transfer bench:

1. Lift your legs over the outside of the tub.
2. Scoot to the edge of the bench.
3. Push up with one hand on the back of the bench while holding onto the center of the walker with the other hand. Keep the surgical leg out straight.
4. Balance yourself before grabbing the walker.

Getting in and out of a walk-in shower:

1. Getting into the shower:
   - Step into the shower with your non-surgical leg first.
   - Then step into the shower with your surgical leg.
   - If a shower chair is available, reach for the seat and slowly lower yourself into a sitting position.
2. Getting out of the shower:
   - If using a shower chair, push up from the seat and slowly stand.
   - Step out of the shower with your surgical leg first.
   - Then step out of the shower with your non-surgical leg.

NOTE: If you cannot maintain your activity restrictions, it is not safe to use a walk-in shower at this time.

Reaching, bending and carrying:

1. Set frequently used items on countertops so that you can avoid bending to reach in low cupboards.
2. A reacher can help reduce the strain on your back when picking up objects from the floor.
3. Do not carry or hold anything in your hands while using a walker or crutches. Use pockets in an apron, tool apron, clothing, fanny pack or backpack.
4. Do not reach too far when you slide objects across a countertop.
5. Try using a rolling cart to move heavy, hot or breakable items.

Mobility and Activity Techniques for Daily Living

After knee surgery, you may need to move differently until your knee heals. Practice the following techniques before surgery so you know what to do right after surgery.

Getting in and out of bed:

1. Back up until you feel the bed against the back of your legs.
2. Place your surgical leg forward.
3. Reach back for the bed surface, lowering yourself slowly to the edge.
4. Scoot back on the bed in a diagonal direction until your knees feel supported.
5. As you turn your body to get into bed, you may need to use a leg lifter or someone to help lift your surgical leg.
6. When getting out of bed, sit up.
7. As you turn your body, you may need to use a leg lifter or someone to help move your surgical leg.
8. Lean back as you use your hands to move your body forward until you are sitting at the edge of the bed.
9. Place your surgical leg forward.
10. Push up from the bed and stand up.
11. Do not reach for a walking device until your balance is secure.

Getting on and off a chair with arms:

1. To sit down, back up until you feel the chair against the back of your legs.
2. Place your surgical leg forward.
3. Reach back for the arms of the chair with both hands and sit down on the edge of the seat, then slide back.
4. To get off the chair, slide to its edge.
5. Place your surgical leg forward.
6. Push up with both arms and your non-surgical leg.
7. Do not reach for a walking device until your balance is secure.

NOTE: Do not use a walker to pull yourself up from a sitting position. This could make you fall.

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 (and pillow if needed) on the seat of the car to help you slide and face forward.
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 surgical leg straight out in front of you and duck your head so that you don't hit the doorframe.
5. Turn forward, leaning back as you lift the surgical leg into the car.

Around the House

Kitchen:

1. Do NOT get down on your knees to scrub floors. Use a mop and long-handled brushes.
2. Plan ahead! Gather all your cooking supplies at one time, then sit to prepare your meal.
3. Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching, such as on a countertop.
4. To provide a better work height, use a high stool or put cushions on your chair when preparing meals.
5. Use a walker bag or basket to transport items from one area to another.

Bathroom:

1. Do NOT get down on your knees to scrub a bathtub.
2. Use a mop and long-handled brushes.

Safety and Avoiding Falls

1. 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.
2. Be aware of all floor hazards such as pets, small objects or uneven surfaces.
3. Provide good lighting throughout. Install nightlights in bathrooms, bedrooms and hallways.
4. Keep extension cords and telephone cords out of pathways. Do NOT run wires under rugs. This is a fire hazard.
5. Do NOT wear open-toed slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.
6. Replacing shoelaces with elastic laces makes shoes easier to put on and take off.
7. Rise slowly from either a sitting or lying position to avoid getting light-headed.
8. Do not lift heavy objects for the first three months and then only with your surgeon's permission.
9. If home alone, carry a portable phone with you at all times.
10. If you choose to walk outside, be aware of hazards. Stay out of the grass until you are stronger and steady. In the winter, be wary of ice and snow. Walk slowly and use supports to minimize the risk of slipping.

FREQUENTLY ASKED QUESTIONS

My knee feels numb. Should I be concerned?

After surgery, you might feel numbness on the outside of your knee. This numbness is normal because your nerve endings were affected during surgery. Over time, some patients regain the feeling, others do not. The numbness you feel does not affect the function of your knee.

How long will full recovery take?

Full recovery from knee replacement surgery may take up to one year. Your body has experienced significant changes and stress. Over time, you will notice your activity level returning to normal.

Can I still travel through airport security?

Having a joint replacement should not prevent you from traveling. Airport security technology can easily detect your knee replacement components, so we no longer need to provide wallet cards stating you've had joint replacement.

How long after my surgery will I see my surgeon?

Your surgeon wants to follow the progress of your knee for your entire lifetime! He will typically see you every other year after the first anniversary of your surgery, but he may decide you need to be seen yearly. He'll keep an eye on your joint through X-rays and exams to make sure that it is functioning properly and that there aren't any concerns.

When can I resume sexual activity?

You can resume sexual activity 8 weeks after surgery. A firm mattress is recommended. Use the missionary position or less dominant position. Visit recoversex.com for more information about resuming sexual activity after surgery.

EXERCISE PROGRESS REPORT

Weeks 1-2												
	Knee Flex. ROM		**Knee Ext. ROM**		**Ankle Pumps**	**Leg Slides**	**Heel Slides**	**Lying Kick**	**Straight Leg Raises**	**Knee Stretch**	**Knee Bend Stretch**	**Chair Push-Ups**
	A.M.	P.M.	A.M.	P.M.	Reps	Reps	Reps	Reps	Reps	Reps	Rep	Reps
Day of Surgery	**X**		**X**									
Day 1												
Day 2												
Day 3												
Day 4												
Day 5												
Day 6												
Day 7												
Day 8												
Day 9												
Day 10												
Day 11												
Day 12												
Day 13												
Day 14												

Flex. = Flexion, how far you can bend your knee
Ext. = Extension, how far you can straighten your knee
ROM = Range of motion
Day = Number of days post-surgery
Reps = Number of times you completed the exercise

EXERCISE PROGRESS REPORT

Weeks 3-4										
	Knee Flex. ROM		**Knee Ext. ROM**		**Wall Quarter Squat**	**Ankle Dorsiflexion Plantar Flexion**	**Quarter Squat Hip Flexion**	**Forward Step-Up**	**Retro Step-Up**	**Prone Knee Bend Stretch**
	A.M.	P.M.	A.M.	P.M.	Reps	Reps	Reps	Reps	Reps	Reps
Day 15										
Day 16										
Day 17										
Day 18										
Day 19										
Day 20										
Day 21										
Day 22										
Day 23										
Day 24										
Day 25										
Day 26										
Day 27										
Day 28										

Flex. = Flexion, how far you can bend your knee
Ext. = Extension, how far you can straighten your knee
ROM = Range of motion
Day = Number of days post-surgery
Reps = Number of times you completed the exercise

EXERCISE PROGRESS REPORT

Weeks 5-6											
	Knee Flex. ROM		**Knee Ext. ROM**		**Wall Quarter Squat**	**Deep Squat**	**Forward Step-Up**	**Retro Step-Up**	**Side Step-Up**	**Lunges**	**Lateral Lunges**
	A.M.	P.M.	A.M.	P.M.	Reps	Reps	Reps	Reps	Reps	Reps	Reps
Day 29											
Day 30											
Day 31											
Day 32											
Day 33											
Day 34											
Day 35											
Day 36											
Day 37											
Day 38											
Day 39											
Day 40											
Day 41											
Day 42											

Flex. = Flexion, how far you can bend your knee
Ext. = Extension, how far you can straighten your knee
ROM = Range of motion
Day = Number of days post-surgery
Reps = Number of times you completed the exercise

MEDICATION LOG

Date & Time	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:
Write the date and time you took your medication and place a check mark in the column of the medication taken.				

MEDICATON LOG

Date & Time	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:
Write the date and time you took your medication and place a check mark in the column of the medication taken.				

MEDICATON LOG

Date & Time	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:
Write the date and time you took your medication and place a check mark in the column of the medication taken.				

MEDICATON LOG

Date & Time	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:	Medication name: Dose: Frequency: Uses:
Write the date and time you took your medication and place a check mark in the column of the medication taken.				

NOTES

NOTES

Revised: 06/2026