

BRING PATIENT PASSPORT TO ALL APPOINTMENTS

Patient Passport

Total Knee Replacement

| A Resource Guide for You and Your Caregivers



Patient Notes

MEDICATIONS TO STOP

OTHER INSTRUCTIONS

DISPOSITION PLAN

Completed by provider at Decision for Surgery Visit:

- | | | | |
|---|-------------|--|---|
| <input type="checkbox"/> Home Same Day | <i>with</i> | <input type="checkbox"/> Home Health Nursing | <input type="checkbox"/> Home Health Physical Therapy |
| <input type="checkbox"/> Overnight Stay | <i>with</i> | <input type="checkbox"/> Home Health Nursing | <input type="checkbox"/> Home Health Physical Therapy |
| <input type="checkbox"/> Extended Stay | <i>with</i> | <input type="checkbox"/> SNF | <input type="checkbox"/> Home Health Care |

LOCATION OF SURGERY

The hospital preop nurse will contact you **1-2 days** prior to your surgery date with the check-in time for your procedure. If no one contacts you, please call **(425) 899-2717**.

- EvergreenHealth Medical Center** | The hospital preop nurse will contact you **1-2 days prior** to your surgery date with the check-in time for your procedure. If no one contacts you, please call **(425) 899-2717**.

Remember: Do not eat anything after midnight the night before surgery.

Future Appointments

Here is a list of your future appointments.

*PROVIDER RESPONSIBILITY

Please make a note of the dates and times:

Decision for Surgery Appointment: _____ Check in at: _____

Surgery Appointment: _____

(A nurse will call you 1-2 days prior to surgery to give you the surgery and check-in time)

10–14 day Postoperative Appointment: _____

6 week Postoperative Appointment: _____

*PATIENT RESPONSIBILITY

Please make a note of the dates and times:

Preoperative Physical Therapy Functional Assessment Appointment: _____

Postoperative Physical Therapy Appointments:

Office: _____ First Appointment (date): _____

**Please make your outpatient PT appointments as soon as you can to ensure you are starting PT in a timely fashion. We would like you to start outpatient PT 2-3 days after your surgery.

If at any time during business or after hours you have questions or concerns please call your surgeon's office.

Our Purpose

Working together to enrich the health and well-being of every life we touch.

OUR MISSION

EvergreenHealth will advance the health of the community it serves through our dedication to high quality, safe, compassionate, and cost-effective healthcare.

OUR VALUES

Compassion | Respect | Excellence | Collaboration | Accountability

DNV CERTIFIED ADVANCED HIP AND KNEE CENTER OF EXCELLENCE

Our organization is committed to absolute safety, the best quality of care and exceptional service. Achieving this certification, the first in Washington State, demonstrates our dedication to our mission.



Thank you for trusting us with your care.

We do not take for granted your decision to seek our opinion on your care. Our goal at EvergreenHealth is to provide you with world class education and treatment in a manner that is tailored to your life and needs. We promise to work with you to craft a treatment plan that puts you in charge of your wellness and health.

Total knee replacement surgery is an elective procedure available to those that suffer from bone-on-bone arthritis in an isolated compartment of the knee, have trouble walking because of pain and experience significant limitation in their quality of life and activities of daily living. Advances in total joint replacement have made it possible for many of our patients with painful knee disease to reclaim the things they liked to do prior to their arthritis.

All patients should complete a trial of conservative treatment prior to moving forward with a total joint replacement surgery. Regardless of the severity of your disease on X-rays or MRIs, patients can have significant improvement in daily function and pain levels if they are able to reduce their weight and participate in structured exercise routines and/or physical therapy. Oral and topical anti-inflammatory medications in conjunction with corticosteroid injections have been historically helpful in treating disease. Once these treatments no longer provide significant relief, then you are ready for total joint replacement.

Our use of new technology, such as computer or robotic guidance, minimally invasive surgical techniques, multimodal pain management and rapid rehabilitation protocols along with state-of-the-art nerve blocking modalities together have made this surgery less invasive, more efficient, less painful, and have provided quicker return to function.

Thank you for choosing our team to perform your total joint replacement. Your decision to proceed with surgery is a life-changing event and we promise to treat it that way. Our philosophy is to set you up for success over the short and long term. We want you to feel prepared on what to expect during the process, be educated about how you can get the most out of your total joint replacement, and make sure that the surgery improves your life in the ways most meaningful to you.

Thank You,

EvergreenHealth Total Joint Program

Total Joint Camp

PREOP PATIENT EDUCATION CLASS

Surgery & Physicians Pavilion
Tan 101, Thursdays
1:30 - 3:00 pm



Your Role In Ensuring A Successful Recovery From Joint Replacement Surgery

Also Available Online

EvergreenHealth is proud to be the first DNV-certified Hip and Knee Replacement Center of Excellence in Washington state. This certification is a result and reflection of our organizational commitment to patient experience and quality across the care spectrum. To help ensure your successful recovery, we offer this class in collaboration with your surgeon's practice. In addition to our preferred in-person class, we offer a recording online. This allows for those physically unable to attend, or for planned caregivers from afar, to have the same access to this valuable education. This free class, in both forms, will help you achieve an optimal outcome. You'll learn what to expect and how to best prepare for your surgical journey. With tips for how to care for yourself afterward, you'll feel more at ease about your upcoming surgery and be prepared to enhance your healing afterward. We invite you to join us.

What will be discussed?

- How to prepare for surgery
- Expectations during hospital stay and when first discharged home
- How to prevent post-op complications and infections
- Pain management education
- Physical therapy importance and expectations

Who should attend?

- Patients planning for a joint replacement surgery
- Friend or family member of the patient

How to Sign up for the class in-person or online:

1. Visit evergreenhealth.com
2. Scroll down and look for "Explore Health Services" on the right side, click on "Orthopedics" under this heading
3. Scroll down and in the dark grey box on the left titled "Orthopedics", click the section "Total Joint Replacement"
4. Scroll down and on the right side there is a box titled "Prepare with Total Joint Camp".
5. Click the 1st hyperlink to see in-person class dates (pre-registration required for in-person), OR the 2nd hyperlink to fill out the form to view the online video.

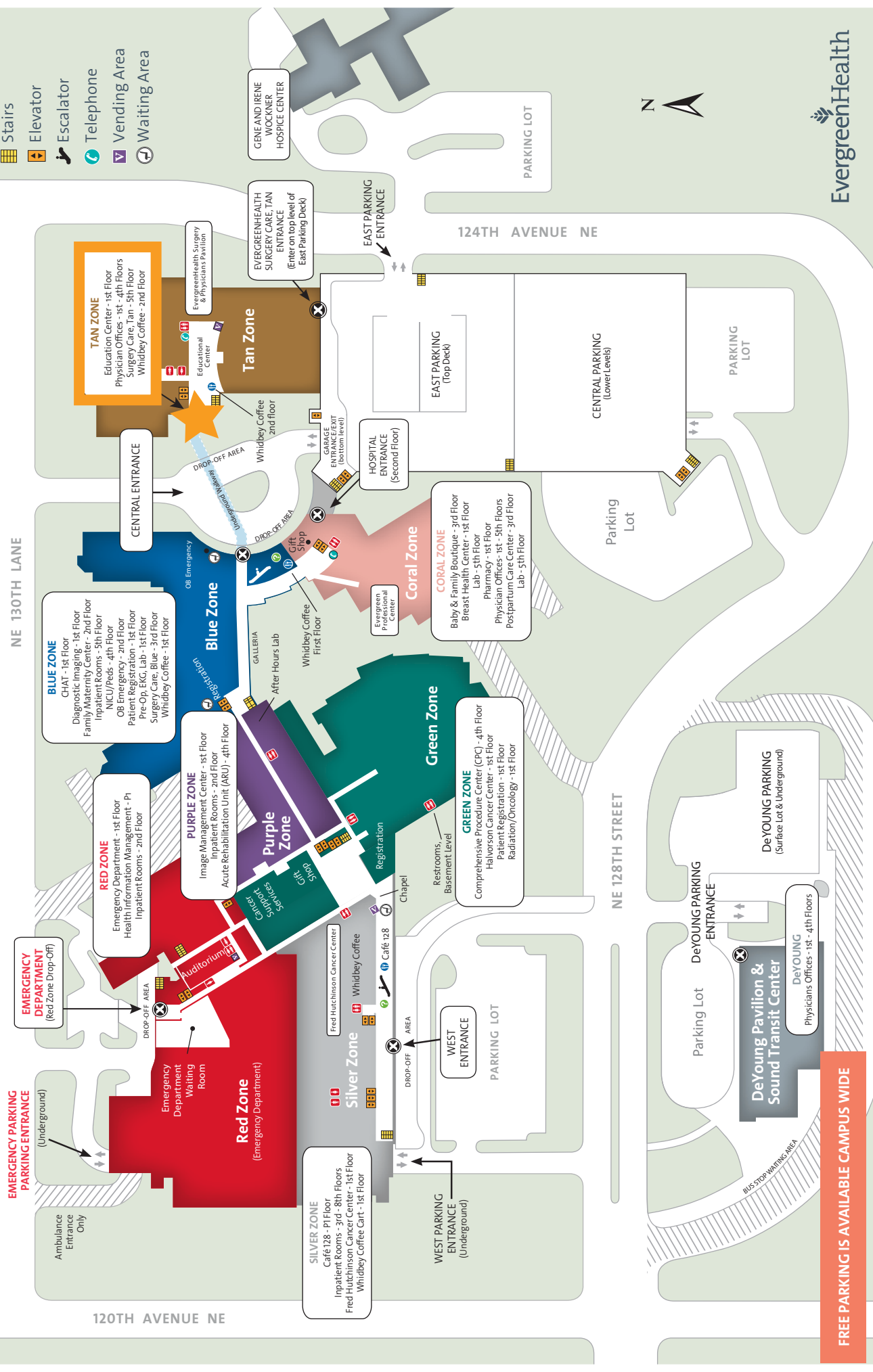


- LEGEND**
- Building Entrance
 - Information Desk
 - Cafeteria/Coffee
 - Restroom
 - Stairs
 - Elevator
 - Escalator
 - Telephone
 - Vending Area
 - Waiting Area

EvergreenHealth Medical Center Campus
 General Information: (425) 899-1000
 EvergreenHealth Nurse Navigator & Healthline: (425) 899-3000
 evergreenhealth.com

EvergreenHealth Human Resources & Technology Center

EvergreenHealth Administrative Services Building



FREE PARKING IS AVAILABLE CAMPUS WIDE

Welcome to EvergreenHealth Medical Center!

I am your Nurse Navigator



Taryn Pfeifer, BSN, RN — Orthopedic Nurse Navigator

Cell: (425) 340-0400 Office: (425) 899-6072

Email: TKPfeifer@evergreenhealth.com

Hours: Monday - Friday 8:00 am - 4:00 pm

"I found my home in orthopedics over 10 years ago. It is thrilling to see the life changing mobility improvements and dance of skilled teamwork surrounding each patient. I am passionate about educating, advocating for, and communicating with patients embarking on this journey. On my time off I love to be in nature, read, play board games/puzzles, and enjoy any social & educational outings. I am known to laugh often, share openly, and am hopelessly curious. After December 2020, my greatest joy has been spending time with my boy/girl twins and husband as we navigate the exciting the new terrain of parenthood!"

What is a Nurse Navigator?

A Nurse Navigator is a specialty trained RN who will follow your care from the time surgery is scheduled, for up to 90 days after surgery is complete. The role focuses on patient advocacy, surgery specific education, care coordination, and data management to continuously improve outcomes and enhance overall patient satisfaction.

What will a Nurse Navigator do?

- Serve as your advocate and central resource before, during, and after surgery
- Review your Care Team notes and reach out to you and/or your healthcare providers to address needs
- Discuss and help coordinate patients two additional resources in the community
- Will be available over phone and text during the surgical journey (May meet with you in the Surgeon's office before or after surgery)
- Works to ease transitions in care, improve recovery, and enhance team communication

"I am so excited to be part of your surgical experience. I personalize my involvement to your needs and am just a call away. **Please don't hesitate to contact me with questions or concerns.**"

-Taryn Pfeifer, BSN, RN

“To Do’s” Before Your Total Joint

Now that you are thinking about a total joint replacement, there are a few things to do before you decide to have surgery.

Please follow these steps to prepare for your total joint replacement. The better prepared you are before surgery the easier the transition from surgery to home is. Each step is specific to your surgery and needs to be completed before proceeding to the next step.

Surgeon:

Phone number:

Choose your caregiver(s): You will need to identify your home caregiver(s) before surgery. They will need to have a good understanding of the information in this book and on-line. You will need a ride home on the day of discharge and your care provider will need to be with you for the next 3-5 days.

Preoperative Testing: If you were notified you need to have labs and EKG done, **this should be completed as soon as possible before surgery.** If these are not done in the DeYoung Pavilion at the time you book surgery, you will need to go to the **Pre-op Clinic in Blue 1.105** or call **(425) 899-2706** to get the labs and EKG scheduled. *(See directions to Pre-Op Clinic on page 14)*

Labs done: _____ EKG done: _____ Location: Preop Clinic PCP Other _____

If you were notified you need further medical clearance, please contact your specialist for an appointment. **Medical Clearance with:** _____ **Phone Number:** _____

Complete your CT scan if having a total knee replacement with the MAKO robot.

Office will assist with scheduling* **Done: _____

Schedule your Preoperative Physical Therapy Assessment Appointment: We recommend scheduling these appointments ASAP. The Physical Therapist will review the pre-op checklist and perform a functional assessment with you noted on your Physical Therapy referral in this book. *(Page 17)*

Appointment Date/Time: _____

Enhanced Recovery Before and After Surgery (ERAS): Please obtain your preoperative and postoperative nutritional supplement drinks. *(Page 19)*

Obtain your Durable Medical Equipment (DME): There is a prescription in your Patient Passport *(Page 21)*

Front Wheeled Walker TED hose/Compression Stockings Ice pack/Ice Therapy Machine
(one pair will be given to you at the hospital) (out of pocket expense - more info on [page 24](#))

At your Decision for Surgery Visit you will receive:

Antibacterial soap Disabled Parking Permit Postoperative medications

Be Prepared with Your Pre-Op Team

Pre-Op Clinic, Outpatient EKG & Lab

12040 NE 128th St., Kirkland, WA 98034

Monday - Friday, 7 a.m. - 5 p.m. | (425) 899-2706



The Pre-Op Clinic at EvergreenHealth is your resource to help you prepare for your surgery or procedure. Here is the Pre-Op process to ensure your best possible outcomes in the weeks and days ahead of your surgery:

Your Pre-Surgery Questionnaire

The Pre-Op Clinic team is your resource once your surgery or procedure is scheduled. We are here to determine and help you plan any necessary consultations and tests you may need to complete ahead of your surgery. An important tool in this process is the Pre-Surgery Questionnaire, which tells us specific health information about you and what kind of screenings you may need depending on the type of procedure you're having. You can fill out the questionnaire during your Pre-Op Clinic visit or ahead of time via your MyChart. Additionally, you should create and bring a complete list of your current medications, including supplements and any herbal medicines you are currently taking, to your Pre-Op Clinic visit.

Your Pre-Op Clinic Visit

You should plan on visiting the Pre-Op Clinic as soon as your surgery is scheduled. During your Pre-Op Clinic visit, we'll review your Pre-Surgery Questionnaire and your medications, ensuring this information is shared with your entire care team. Using the information on the questionnaire, we'll be able to conduct any necessary screenings as well as determine if there are any additional screenings that need to take place. The Pre-Op Clinic is open for drop-in visits only Monday-Friday between 7 a.m. and 5 p.m., with the last available check-in at 4:30 p.m. The clinic is located on the first floor of the Blue area of the hospital, at the base of the escalator in Blue 1-105. (Map on next page)

Your Pre-Surgery Phone Call

Usually about 1-3 business days before your scheduled surgery, our team will reach out via phone call to give you further instructions. These may include plans for completing tests you may need before your surgery, dietary advice for prior to your surgery and directions for taking any medications you have. Following your instructions will ensure you are on track for the best possible outcomes for your surgery.

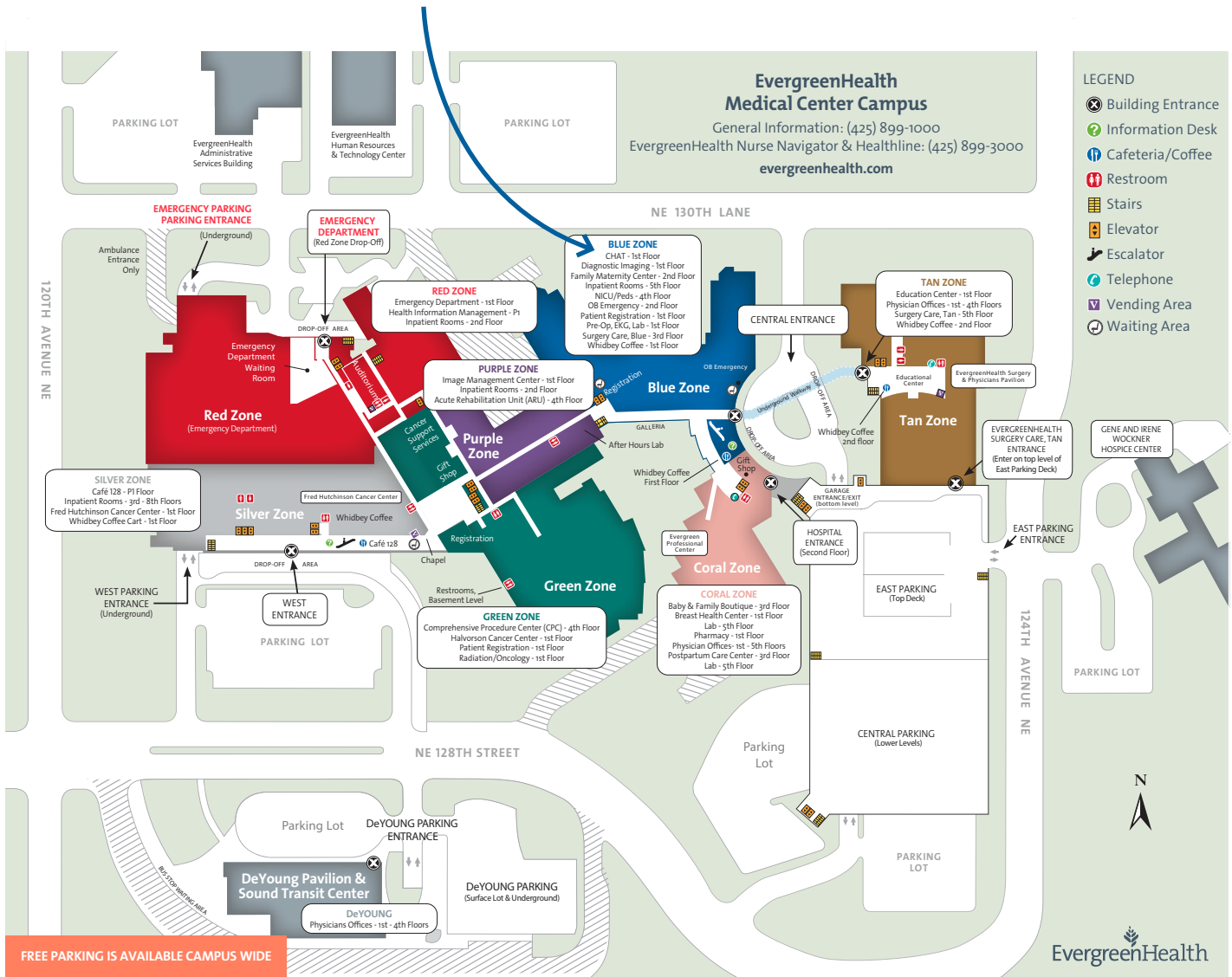
You can see more information about your Pre-Op Clinic here: evergreenhealth.com/pre-op.

Call the Pre-Op Clinic for any additional questions at (425) 899-2706.

Directions to Pre-Op Clinic, Outpatient EKG & Lab

The clinic is located on the first floor of the Blue area of the hospital, at the base of the escalator in **Blue 1.105**.

1. Park in the Central Parking Garage
2. Enter the Hospital - Blue Zone, Proceed down the escalator
3. Proceed straight into **Blue 1.105, Pre-Op Clinic**



Functional Assessment Physical Therapy Referral

Patient Name: _____ Date: _____

Diagnosis/Condition: **Osteoarthritis/Arthritis**

Condition Remarks/Precaution: **Functional limitations due to severe OA**

Type of Surgery: **Total Knee — Left / Right**

Evaluate and manage functional assessment at therapist discretion including the use of modalities: **Yes**

Rehabilitation Program: **Conservative Arthritis Management**

PROTOCOLS

- Walker use
- Ascending / Descending Stairs
- Transfers
 - In/out of bed
 - Vehicles
 - Toileting
- Initial gait training techniques—with AD
- Range of motion and strengthening exercises
- Review durable medical equipment needed (Ice Machine, Walker)

Physical Therapist's Evaluation (notes):

FUNCTIONAL ASSESSMENT

- After training was the patient able to do the following using a walker (using a walker is defined as performing the assigned task without putting full weight on operated limb)

1. Rise out of bed	Pass	Fail
2. Ascend/descend stairs	Pass	Fail
3. Ambulate 100 Feet	Pass	Fail
4. On/Off Toilet	Pass	Fail
- Patient's current knee range of motion: _____
- Patient's current quad function/strength: _____
- Does patient need to use stairs to enter/exit or move about their house? Yes No

Physical Therapist's Recommendation:

of visits Or

times/ week _____ for _____ weeks _____

(Physical Therapist Signature)

Enhanced Recovery Before & After Surgery (ERAS) Total Joint Replacement

Nutritional Supplements

- Eat a balanced diet high in protein and fruits and vegetables
- If you are able, supplement your diet with Ensure® Max Protein, Juven or other nutrient-rich nutrition shakes to build up your nutritional stores before and after surgery is ideal.
- Remember to stop any other nutritional supplements and herbs such as fish oil unless specifically directed by your doctor, due to the risk they may increase bleeding during surgery.

5 Days Before Surgery

Ensure® Protein Max

Please supplement your diet with Ensure® Max Protein or other low sugar/ carbohydrate nutrient-rich nutrition shakes to build up your nutritional stores for recovery.

Take two shakes daily for 5 days before surgery.

Gluten & Lactose free (safe for lactose free patients) - Multiple flavors available

Purchase at: Evergreen Outpatient Pharmacy (EPC): (425) 899-2790

Amazon: Online | Walmart: Online and in store



Night Before Surgery

Ensure® Pre-Surgery

This beverage is a way to help your body prepare for surgery with carbohydrates, like you might when preparing for a marathon. Having these carbohydrates available for your body to utilize has been shown to improve postoperative outcomes and reduce nausea.

Flavors available: Strawberry (pictured) and Arctic Chill

Purchase at: Evergreen Outpatient Pharmacy (EPC): (425) 899-2790

Amazon: Online | Walmart: Online and in store



After Surgery

Juven®

Please supplement your diet with Juven® to help with wound healing and recover. Juven® has HMB proteins to help protect muscle cells and preserve muscle tissue.

Take two packets daily for 14 days after surgery.

Flavors available: Orange, Fruit Punch and Unflavored

Purchase at: Evergreen Outpatient Pharmacy (EPC): (425) 899-2790

Amazon: Online | Walmart: Online and in store



Your Surgical Nutrition Plan

SURGERY DATE:

Your healthcare provider recommends the following specialized nutrition products and usage.

Use products as recommended by your healthcare provider.

- ✓ Shake Well. Best served chilled.
- ✓ Once opened, reclose, refrigerate and use within 48 hours.

5 Days Before Surgery

Ensure® Protein Max

Nutrition with 30g of protein to help build muscle and satisfy

Begin 5 days before surgery | Drink 1 shake, 2 times/day for 5 days

✓ CHECK BOXES DAILY TO KEEP TRACK OF YOUR SERVINGS

Start Date:	Days Before Surgery	5	4	3	2	1
Finish Date:	Servings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Night Before Surgery

Ensure® Pre-Surgery

Specially designed to improve general well-being both before and after surgery

NIGHT BEFORE SURGERY

- Consume 2 Ensure® Pre-Surgery drinks

Directions: Consume drink before bedtime within fasting window.

After Surgery

Juven®

Nutrition to help the body build new tissue to support surgical wound healing

Drink 1 packet of Juven, 2 times/day for 14 days.

✓ CHECK BOXES DAILY TO KEEP TRACK OF YOUR SERVINGS

Start Date:	Days After Surgery	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Finish Date:	Servings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



DME Prescription Order

This patient will be undergoing a total joint replacement and has being prescribed durable medical equipment (DME) to be used at home for safety reasons.

I certify that the above prescribed equipment is medically indicated and, in my opinion, is reasonable and customary with the standards of medical practice and treatment of this patient's medical condition.

Patient Name: _____

ICD10: [M17.9](#) DOB: _____ Diagnosis: [Knee Osteoarthritis](#)

Surgery: [Total Knee Replacement](#)

I request that the patient be provided the following durable medical equipment (DME):

- | | |
|---|--|
| <input type="checkbox"/> Front Wheeled Walker (5 inch wheels) | <input type="checkbox"/> Reacher |
| <input type="checkbox"/> Raised Toilet Seat/Commode Chair | <input type="checkbox"/> Bath Bench/Shower Chair |
| <input type="checkbox"/> Tub Transfer Bench | <input type="checkbox"/> Leg Lifter |
| <input type="checkbox"/> Other: _____ | |

Length of Need: 6 Weeks (Rent) 99+ Weeks (Buy)

Prognosis:

- Excellent Good Poor Unknown

Physician Signature:

Physician Name (Print):

NPI#

Date: _____

DME Resource List

Here is a list of local medical equipment providers for your convenience.

Medical Equipment Resource List

Vendor	Location	Hours	Phone	Fax	Website/Cost
Bellevue Healthcare	2015 152nd Ave NE Redmond, WA 98052	M-F 8a-6p Sat 9a-5p	(425) 451-2842	(425) 467-6661	bellevuehealthcare.com able to deliver to home
Apria Healthcare	14935 NE 87th St #101 Redmond, WA 98052	M-F 8a-5p Sat 8a-3p Resp Dept 10a-1p	(425) 881-8500	(425) 895-3865	apria.com
EvergreenHealth Pharmacy	Next to the Blue gift shop on the 1st floor Hospital	M-F 9a-6p Sat 9a-2:30p	(425) 899-2790	(425) 899-2795	Walker: \$45 Crutches: \$20 Single Point Cane: \$15
Quest Healthcare	4140 148th Ave NE Redmond, WA 98052	M-F 8:30a-5p	(425) 883.9784	(425) 899-2795	rotech.com
Choice Medical Supplies/Byram Healthcare	15110 NE 95th St #101 Redmond, WA 98052	M-F 8:30a-5p	(206) 329-1668 +1 (800) 456-3500	206.328.5986	byramhealthcare.com
CPO Prosthetics & Orthotics	12911 120th Ave NE #E-60 Kirkland, WA 98034	M-F 8:30a-5p	(425) 821.4276	(425) 821.4277	cpo.biz
Hanger Prosthetics & Orthotics	DeYoung Pavilion #140	M-F 8a-5p	(425) 814-3258	(425) 814.3746	hanger.com
Lincare	2454 Occidental Ave S #3C Seattle, WA 98134	M-F 8a-5p	(206) 467.8069	(206) 467.4852	lincare.com
Norco Medical	3030 Hoyt Ave Everett, WA 98201	M-F 8:30a-5p	(425) 949.4552	(877) 557.2166	norco-inc.com
Numotion	19019 36th Ave W #E Lynnwood, WA 98036	M-F 8:30a-5p	(425) 673.6191 +1 (877) 347-7361	(425) 673.6075	nutmotion.com
Sizewise Bariatric	22409 72nd Ave S Kent, WA 98032	24/7	+1 (800) 814-9389	(425) 673.6075	sizewise.net

Usually less expensive places to get Durable Medical Equipment (DME) online: Amazon.com, Costco.com, Walmart.com, Wisdomking.com, Walgreens.com

Borrowed Equipment Resources

Bridge Ministries	Bellevue	M-Th 12p-4:30p	(425) 885-1006	Minimum Donation Suggested
Northshore Senior Center	Bothell	M-Sat 8:30a-4:30p	(425) 487.2441	Minimum Donation Suggested
MS Helping Hands	Edmonds	T-Sat 10a-3p	(425) 712-1807	Minimum Donation Suggested

***You can check with your local senior center to see if they have any durable medical equipment to borrow.

Ice Therapy Machine




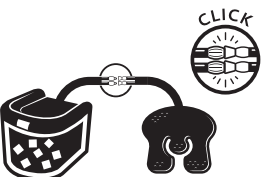
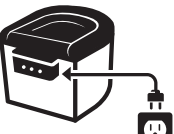
Quick Start Guide

DonJoy® IceMan® CLEAR3 Cold Therapy Unit with Universal Wrap-On Pad

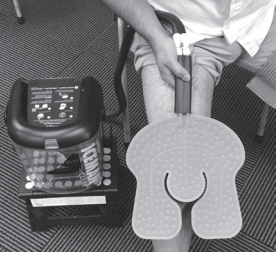
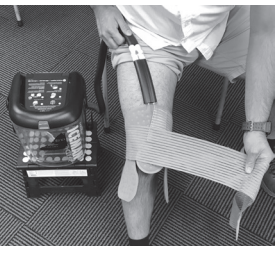

- THIS DEVICE CAN BE COLD ENOUGH TO CAUSE SERIOUS INJURY.
- DO NOT use this device without a prescription from a physician.
- READ AND UNDERSTAND ALL WARNINGS AND INSTRUCTIONS FOR USE BEFORE USING THIS DEVICE. ADDITIONAL WARNINGS APPEAR IN THE INSTRUCTIONS FOR USE.



Directions for use of the IceMan® CLEAR

1		Add ice to fill line.
2		Add cold water to fill line.
3		Place lid on device making sure the label is facing up. Secure the lid by raising the handle, which will engage the lid locking mechanism.
4		Connect cold therapy hose to cooling pad. To ensure a reliable connection, "snap" or "click" hoses together into place so that the fit is tight and snug.
5		To turn device on, insert cord into connection on the back of the device and plug power supply into the wall outlet.

Directions for use of the Wrap-On Pad

A		Place barrier on knee then place wrap-on pad on knee with tube up as shown. Place round flap on top of patella.
B		Take strap and wrap around knee from one side of pad over the patella. Wrap should be snug but not tight.
C		Secure long strap to itself to keep everything flat.

- 6
- Apply cold pad and barrier to affected area, making sure to use your prescription.
 - **WARNING!** - When applying the cold pad, DO NOT let any part of the cold pad touch your skin.
 - Always use with a barrier between your skin and the cold pad.
 - Check for moisture on the barrier between your skin and cold pad.
 - If moisture is present on the barrier, immediately discontinue use of this device.
 - Do not use this device without a prescription from a physician.

Product Support | +1.888.405.3251

WARRANTY: DJO, LLC will repair or replace all or part of the unit and its accessories for material or workmanship defects for a period of six months from the date of sale.

Individual results may vary. Neither DJO Global, Inc. nor any of its subsidiaries dispense medical advice. The contents of this sheet do not constitute medical, legal, or any other type of professional advice. Rather, please consult your healthcare professional for information on the courses of treatment, if any, which may be appropriate for you.



T 800.336.6569 D 760.727.1280 F 800.936.6569
1430 Decision Street | Vista, CA 92081-8553 | U.S.A.
DJGlobal.com/donjoy

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MKT00-7739 Rev A

Preparing for Total Joint Replacement Surgery

The Decision for Surgery

A decision for Surgery office visit will be scheduled by our surgery scheduler for approximately 2-3 weeks prior to your surgery with your surgeon or one of their Physician Assistants that is part of their joint replacement team. This appointment is usually 30-45 minutes. This is an important time to review Shared Decision Making and for further education regarding the postoperative plan along with discussing goals and expectations so please bring your Patient Passport and caregiver to participate.

RISK WITH SURGERY

While total joint replacement surgery is a very successful surgery and provides people with improved quality of life, it does have risk associated with it. EvergreenHealth and your surgical team pay strict attention to details to minimize your risk after surgery. We will often times ask you to see your specialists before surgery to help optimize any medical conditions you might have. It is important that you are aware of the risks and complications of joint replacement surgery. The risks include but not limited to:

- Infection
- Stiffness/Pain
- Blood Vessel Injury
- Blood Clot/Embolus
- Fracture
- Heart Attack or Stroke
- Nerve Injury
- Implant Failure

DENTAL HEALTH

Complete any dental work and let your dentist know you are having total joint replacement surgery. Plan to avoid dental work dental work for 6 weeks before surgery and 12 weeks after surgery. After total joint replacement, you will need to take antibiotics before dental procedures and dental cleaning after your surgery. Dental cleaning releases bacteria into your bloodstream. Antibiotics prevent those bacteria from infecting your total joint replacement.

HEART HEALTH

If you have a cardiologist or any heart conditions, we will need a note from your cardiologist stating you are in good shape and cleared for surgery. This is a requirement for not only your surgeon but your anesthesiologist as well.

SMOKING/TOBACCO/NICOTINE

No smoking or using alternative nicotine-containing products for 4 weeks prior to surgery and 6 weeks after surgery. Smoking can increase your risk of infection as well as delay and cause issues with healing.

ALCOHOL

Patients should stop drinking alcohol about 2 weeks before surgery. Alcohol along with anesthesia and the medicines we prescribe for you after your surgery can cause liver problems and effect your recovery.

BODY WEIGHT

A healthy body weight plays an important part in the effects of healing and reduces your risk of major complications. Having a BMI of 40 or less, ideally below 35, will help you achieve improved outcomes after surgery.

OPTIMIZING HEALTH

To ensure you have the best outcome, if you have any chronic medical conditions, such as heart disease, diabetes, anemia, COPD, or malnutrition, we will work with you and your doctor to make sure you are ready for your joint replacement procedure. This may involve delaying your surgery until you are as healthy as possible.

Countdown to Surgery

4 Weeks Prior to Surgery

- Pre-op Functional Assessment PT appointment - Learn your post-operative exercises and practice the at home skills you learned in your pre-surgical Functional Assessment PT appointment, which are included in your Patient Passport. This will make the transition from surgery to home much easier. You will be better prepared at home if you practice what the Physical Therapists show you.

2 Weeks Prior To Surgery

- Decision for Surgery appointment - Complete paperwork, review blood tests (non-fasting) and EKG if needed. We'll provide paperwork for a 3 month disabled parking permit, antibacterial soap and medication prescriptions at that time.
- Icing is very important after your surgery. Please plan to have either a polar ice machine (available through your surgeon's office or online) or at least 2 large gel packs on hand to use. You will want to ice frequently after surgery. You will want to ice for 20 minutes on 20 minutes off. Make sure there is a towel/barrier between your skin and the ice so you do not get frostbite.
- Your surgeon will write a note for your employer if needed. Please see return to work guidelines mentioned earlier in this handout. FMLA paperwork can be faxed to your surgeon's office or dropped off prior to your surgery. Please allow 2-3 business days for this paperwork to be completed and be sure to attach a note with your return-to-work date/plans.

7 Days Prior to Surgery

- Discontinue taking SGLT-2, Steglatro- Ertugliflozin.
- Stop aspirin, fish oil, Vitamin E, St. John's Wort, Valerian, Ginseng, Ginkgo, COQ 10, Kava Root, Turmeric, Saw Palmetto and Garlic seven days prior to surgery. If there are other supplements you have questions about please ask your surgical team.
- Stop talking GLP-1* if you take a once a week dose.

**Surgery may be cancelled if the below medications are not stopped on time.

- Trulicity (Dutaglutide)
- Victoza (Liraglutide)
- Ozempic/Wegovy/Rybelsus (Semaglutide)
- Byetta (Exenatide)

5 Days Prior to Surgery

- Remember to start your preoperative nutritional supplements. *(Page 19)*

4 Days Prior to Surgery

- Stop anti-inflammatory medications Ibuprofen, Aleve, Naproxen, Mobic, Meloxicam, Relafen, You may take Tylenol/Acetaminophen to help with pain management if you are having increased pain since stopping your anti-inflammatory.
- Discontinue taking SGLT-2, Steglatro- Ertugliflozin.
- ****Surgery may be cancelled if the above medications are not stopped on time.**
- Discontinuing your anticoagulants or blood-thinners will be specified by your care team and noted in your Patient Passport that you bring with you at your Decision for Surgery visit 2-3 weeks before surgery. These include, but are not limited to:
 - Warfarin (Coumadin, Jantoven) – Stop 5 days before surgery
 - Enoxaparin (Lovenox) or Fondaparinox (Arixtra) – Stop 24 hours before surgery
 - Clopidogrel (Plavix) – Stop 7 days before surgery
 - Dabigatran (Pradaxa), Rivaroxaban (Xarelto), Apixaban (Eliquis) – Stop 3 days before surgery
- Typically, you can expect to receive your phone call from the surgical nurse around this day, your surgical nurse will give your check in time for surgery and any additional instructions you may need for your arrival to the hospital.

3 Days Prior to Surgery

- **Discontinue taking SGLT-2, Farxiga (Dapagliflozin), Jardiance (Empagliflozin)**
****Surgery may be cancelled if the above medications are not stopped on time.**

2 Days Prior to Surgery

- Shower using the antiseptic soap (Hibiclens) provided at your Decision for Surgery appointment.
**You will take 2 more showers with this soap; use a small amount to apply from the neck down. Please pay special attention to washing the groin area and under skin folds. This helps reduce risk of infection.*
- Start your stool softeners now.

Day Before Surgery

- Stop taking GLP-1* the day before surgery if you take a daily dose.
****Surgery may be cancelled if the above medications are not stopped on time.**
 - Trulicity (Dutaglutide)
 - Victoza (Liraglutide)
 - Ozempic/Wegovy/Rybelsus (Semaglutide)
 - Byetta (Exenatide)
- Shower using the antiseptic soap (Hibiclens) provided.
- Drink your (2) Ensure® Pre-Surgery clear carbohydrate supplement the night before your surgery.
- Drink extra water or sugar-free Gatorade the night before your procedure unless you are on fluid restrictions.
- **Do not eat anything after midnight the night before your hospital visit. (No matter time of surgery)**
- **No solid food, gum, mints, candy or cough drops.**

Day of Surgery

- Shower using the antiseptic soap (Hibiclens) provided.
- Take any medicines you have been instructed to take on the day of surgery with a small sip of water at least 2 hours prior to check-in.
- After midnight, you can continue to drink water, clear sugar-free juice without pulp (such as apple, cranberry or grape juice), fat-free broth, tea, or black coffee (without milk or creamers) up to 8 oz. maximum until 2 hours before check-in. **Important: *Failure to follow these instructions may cause your surgery to be delayed or canceled.***
- Do NOT drink any carbonated beverages, or anything with milk or milk products, including coffee creamer. Stop drinking all liquids *Two Hours Before* your check in time.
- You will meet the admitting nurse who will help you change clothes, start an IV and ask a lot more questions.
- Your surgeon will see you before surgery. **Make sure you bring your Patient Passport** with you. We will review the Patient Passport again and mark the appropriate site for surgery. Please let him know if there are friends/family she needs to contact after surgery. FMLA paperwork will not be completed the day of surgery, this needs to be coordinated through the office not at the hospital.
- You will meet the anesthesiologist. Most people go to sleep during the surgery (general anesthesia), additionally many patients benefit from a spinal block that can reduce stress and blood loss. With your total knee surgery, you will be offered a block.
- In order to help with your postoperative pain we will either use an adductor canal block which causes the front of your thigh and knee to be numb after surgery.
- The goal is to do the surgery generating as little pain as possible. You will require less anesthesia and will wake up after surgery with little pain.
- Let your anesthesiologist know if you have had a problem with anesthesia in the past, if you often get motion sickness, or have experienced nausea and/or vomiting after surgery. You will get medicine to lower the risk of nausea and vomiting before, during, and after the procedure.

Total Knee Replacement Aftercare

Activity/Physical Therapy

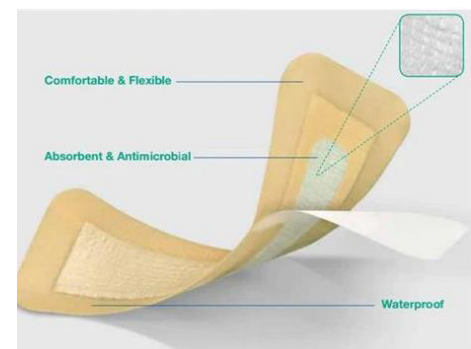
Use a front-wheeled walker for 2-3 weeks. After 2-3 weeks, you may transition to a cane as you are able to walk without a limp. A walker is a little slower, but more secure. You can put as much weight down as you can tolerate. *Use of a walker for the first 2-3 weeks allows for the muscles to heal and helps to prevent falls that could result in a fracture or other injuries that could delay healing.*

Start your walking (with your FWW walker) and home exercises on day one.

- You should start outpatient physical therapy about 7-10 days after surgery.
- Make sure to schedule these appointments early on to avoid delays in getting appointments.
- Exercises will improve your strength and flexibility. We encourage you to move your knee and improve your flexibility. Increasing your range of motion (ROM) will be a major focus during the first several weeks after surgery.
- Work on your range of motion (ROM). The goal is to reach 90 degrees by 2 weeks. *The goal is to reach 115 degrees of flexion by your 6-week post-op visit.* Your surgeon will discuss with you the long-term goals for ROM at your 6-week post-op appointment.
- Physical Therapy | 1-3 sessions per week working on ROM, strengthening, gait and balance. Work on home exercises as directed by your physical therapist.

Postoperative Expectations

- Expect improved function 4-6 weeks after surgery.
- You can plan to return to sedentary work in 3 weeks.
- You can plan to return to standing work in 6-8 weeks.
- You can plan to return to labor work in 4-5 months.
- It can take 1 year to fully recover.



Dressing/Wound | Your knee will have a waterproof dressing applied at the end of surgery. It looks like a large band aide. Keep this dressing on until your first post-op appointment in the clinic. If there are concerns with the dressing regarding drainage or leaking, rash or blisters please **call your surgeon's office**. You can shower with your dressing on after 72 hours. Do not soak/submerge incision until it is fully healed (**6 weeks** after surgery) No baths, hot tubs or pools

- Do not put any lotions or ointments on or around the incision until it is fully healed.
- Do not manipulate the incision or massage scar tissue (or allow others to manipulate and/or massage) until it is fully healed.

Medications | Continue all preoperative routine medications. ****Please reference your 'Home Care Instructions' for post-op medication (some medications are specific to your plan and may not be listed here).*

Pain | *The discomfort is highest on days 1-3 after surgery.* Normally the discomfort begins to improve 4 days after surgery. Usually, the need for narcotics is reduced to rare and occasional after one week. Tapering off your narcotics is important and should be started as soon as possible after surgery. These medications can cause constipation, nausea and drowsiness. It's important to minimize their use when possible.

Constipation Management | You should have been taking your stool softeners starting 2 days before surgery. If you are still having difficulties with constipation:

- If you have not had a bowel movement 2 days after surgery, then in addition to your primary stool softener, add in Milk of Magnesia (over the counter liquid).
- If you have still not had a bowel movement by 4 days after surgery, then we recommend either a rectal suppository for constipation, or Magnesium Citrate liquid (you can start with half a bottle first versus the entire 10oz bottle if you think you might be sensitive).
- You may contact our office or Nurse Navigator at any time if discomfort develops or your over-the-counter additions have not been effective.

Blood Clot/DVT | One concern after surgery is developing a clot in your vein known as deep vein thrombosis (DVT). You will want to call your surgeon's office if you develop any calf pain. To help prevent this, we use pumping devices on your legs while in the surgery. Also, you'll be taking a blood thinner. *Refer to Home Care Instructions for medication and directions, page 36*. Early mobility is another good way to decrease the chances of developing a blood clot after surgery, getting up every hour or two for 10-15 minutes will help with this.

SWELLING MANAGEMENT

Icing/cryotherapy | Ice often. You can ice 20 minutes on 20 minutes off. Icing several times a day will help with pain and inflammation. Remember to keep a barrier (towel) between your skin and the ice. Remember the concern for frostbite. Avoid using heat around the surgical area as that will increase swelling and bruising. *If choosing DonJoy/gel packs/ice machine, page 24.*

Elevation | To reduce postoperative swelling in the lower leg and foot, lay flat and elevate your foot above the level of your heart. When you are sitting it is a good idea to have your feet elevated in front of you on a bench, chair, coffee table etc.

Compression Stockings | You will be wearing compression (TED hose) stockings for the first 2 weeks. If your skin is tolerating the compression stockings, continue to wear them for the first 2 weeks to help with postoperative swelling.

OTHER

Driving | You are not able to drive safely until you are off narcotic pain medication and moving around more normally. Usually this will take 3-4 weeks after surgery.

Diet | Drink plenty of liquids to stay hydrated & eat healthy foods high in protein and low in sugar. Remember your nutritional supplements, Ensure® and Juven. Continue to use Juven to help with wound healing for 2 weeks after surgery.

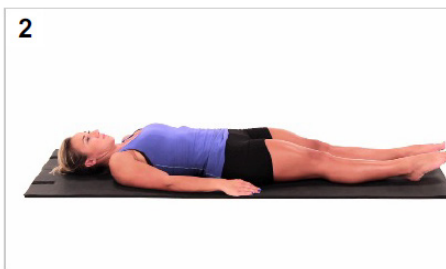
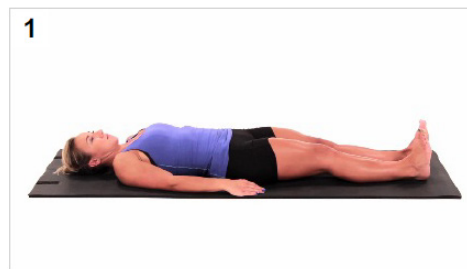
Travel | Many commonly used orthopedic implants may set off the metal detectors at the airport. Over 90% of implanted total hip and knee arthroplasty devices will set off airport metal detectors. Many implants now include ceramic and plastic materials in addition to metal, and the metal will still likely cause an alarm in the metal detector. For more information please see: hipknee.aahks.org/traveling-after-joint-replacement-surgery/

Knee Exercises

Home Exercise Program

Supine Ankle Pumps

REPS: 10	SETS: 1	DAILY: 5	WEEKLY: 7
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Setup: Begin lying on your back with your legs straight.

Movement: Slowly pump your ankles by bending and straightening them.

Tip: Try to keep the rest of your legs relaxed while you move your ankles.

Seated Heel Slide

REPS: 10	SETS: 1	DAILY: 3	WEEKLY: 7
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Setup: Begin sitting upright with your surgical leg straight forward, foot resting on the floor.

Movement: Slowly slide your heel backward, bending your knee as far as you can. Hold briefly, then return to the starting position and repeat.

Tip: Make sure to keep your foot in line with your leg and do not let your foot rotate outward or inward during the exercise.

Long Sitting Quad Set

REPS: 10	SETS: 1	HOLD: 5SEC	DAILY: 3
WEEKLY: 7			



Setup: Begin sitting upright on the floor with one leg laying straight and your other knee bent.

Movement: Straighten your leg, pushing your knee toward the floor, and hold.

Tip: Make sure to keep your back straight during the exercise.

Active Straight Leg Raise with Quad Set

REPS: 10	SETS: 1	DAILY: 3	WEEKLY: 7
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Setup: Begin lying on your back with one knee bent and your other leg straight

Movement: Squeeze the thigh muscles in your straight leg and flex your foot, then slowly lift your leg until it is

parallel with your other thigh. Lower your leg back to the starting position and repeat.

Tip: Make sure to keep your back flat against the floor during the exercise.

Seated Knee Extension Stretch with Chair

SETS: 1	HOLD: 3-5MIN	DAILY: 3	WEEKLY: 7
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Setup: Begin sitting upright with a chair directly in front of you.

Movement: Lift one leg off the ground and rest your foot on the chair, then begin to relax your leg, allowing your knee to straighten, and hold this position.

Tip: Make sure to keep your back straight during this stretch.

Step Up

REPS: 10	SETS: 1	DAILY: 1	WEEKLY: 7
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Setup: Begin standing with a small step or platform in front of you.

Movement: Step up onto the platform with one foot then follow with your other foot. Return back down to the starting position and repeat.

Tip: Make sure to maintain good posture during the exercise and do not let your knee bend forward past your toe as you step up.

Mini Squat with Counter Support

REPS: 10	SETS: 1	DAILY: 1	WEEKLY: 7
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Setup: Begin in a standing upright position with your feet shoulder width apart and your hands resting on a counter.

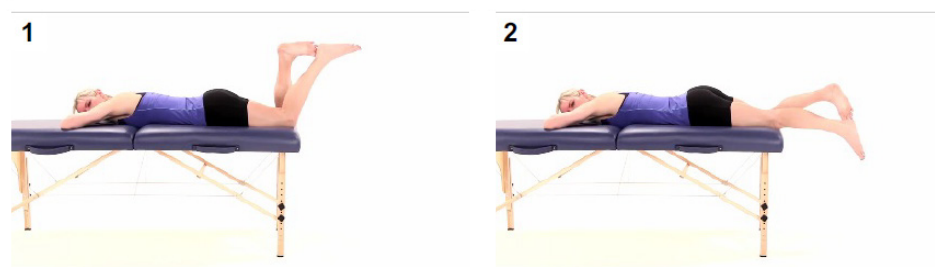
Movement: Slowly bend your knees to lower into a mini

squat position. Hold briefly, then press into your feet to return to a standing upright position and repeat.

Tip: Make sure to keep your heels on the ground and use the counter to help you balance as needed. Do not let your knees bend forward past your toes or collapse inward.

Prone Knee Extension Overpressure

SETS: 2	HOLD: 30	DAILY: 3	WEEKLY: 7
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Setup: Begin lying on your front on a table or bed with your feet hanging off the edge.

Movement: Place the toes of one foot on top of your other heel then apply a gentle downward pressure, straightening your knee.

Tip: Make sure not to arch your back during the exercise.

Seated Long Arc Quad

REPS: 10	SETS: 2	DAILY: 1	WEEKLY: 7
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1



2



Setup: Begin sitting upright in a chair.

Movement: Slowly straighten one knee so that your leg is straight out in front of you. Hold, and then return to starting position and repeat.

Tip: Make sure to keep your back straight during the exercise.

Seated Knee Flexion Stretch

REPS: 10 WEEKLY: 7	SETS: 2	HOLD: 30SEC	DAILY: 3
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1



2



3



Setup: Begin sitting in an upright position.

Movement: Move one foot backward under the chair, then slowly shift your weight forward, bending your knee further. Hold this position. Return to the starting position and repeat.

Tip: Make sure to only move in a pain free range of motion.

Home Care Instructions

(First 2 weeks post surgery) Please make a note of the dates and times.

ICING/COOLING THERAPY Icing is a very important part of your postoperative pain management. Icing is very helpful in reducing swelling and pain. You will want to ice frequently (every hour or two) throughout the day. Keep ice on the surgical leg for 20 minutes then off for 20 minutes allowing the skin to come back to room temperature. You want to avoid frostbite. Frostbite is an injury to the skin that can result in skin breakdown, infection and the need for more surgery. Do not put ice directly on your skin. Try to keep your leg elevated above the level of your heart throughout the day to help with swelling and pain. (Page 24)

POSTOP PAIN MEDICATIONS (We use both Tylenol/Acetaminophen and anti-inflammatory medications to help with pain management after surgery)

Tylenol/Acetaminophen

_____ Tylenol/Acetaminophen 500 mg – take 2 pills 3 times a day for 4 weeks

*Tylenol/Acetaminophen can cause serious liver problems. Do not take Tylenol/Acetaminophen if you have liver disease. Do not exceed 3000 mg in 24/hrs.

Anti-inflammatory/NSAID

_____ Celebrex/Celecoxib 100 mg – take 1 pill 2 times a day for 4 weeks

_____ Advil/Ibuprofen 200 mg – take 2-3 pills, 3 times a day (every 8 hours) for 4 weeks

_____ Aleve/Naproxen 220 mg – take 2 pills 2 times a day for 4 weeks

_____ Toradol (Ketorolac) 10 mg 1 pill every 6 hours for 5 days

_____ Other: _____

Opiates/Narcotics | *You can use the opiate pain medication to help manage your pain if the Tylenol/Acetaminophen and anti-inflammatory are not enough to manage your pain effectively.* Only use one opiate at a time. If you change opiate pain medication, stop the first one before starting the new opiate.

_____ Tramadol/ Ultram 50 mg

_____ Take 1 pill every 12 hours as needed for pain (severe renal/liver disease)

_____ Take 1 pill every 4 hours as needed for pain

_____ Take 1 pill every 6 hours as needed for pain

_____ Hydrocodone/Acetaminophen 5 mg/325 mg – take 1-2 pills every 4-6 hours as needed for pain. *This medicine contains Acetaminophen (brand name Tylenol). You want to make sure you keep track of the Acetaminophen amount daily and not take more than 3000 mg in a 24hr period.

_____ Oxycodone 5 mg

_____ Take 1 pill every 3-4 hours as needed for pain

_____ Take 1-2 pills every 3-4 hours as needed for pain

_____ Hydromorphone (Dilaudid) 2 mg

_____ 1-2 pills every 4 hours as needed for pain

Deep Vein Thrombosis (DVT) Prophylaxis /Blood Thinner | Efficient surgical time, early mobilization at home and medical management are the best ways to decrease the risk of DVT after your total joint. Your anticoagulation will start the day after surgery unless otherwise discussed.

- _____ Aspirin 81 mg – Take 1 pill 2 times a day for the next 4 weeks
- _____ Lovenox/Enoxaparin 40 mg – 1 subcutaneous injection a day for **10 days** then switch to Aspirin 81 mg 1 pill 2 times a day for **3 weeks**
- _____ Eliquis/Apixaban 2.5 mg – 1 pill 2 times a day for 14 days
- _____ Other _____

Constipation Prevention | Early preparation with OTC stool softeners is the most effective way to reduce the risk of constipation after surgery. Opiate/narcotic pain medication will cause constipation after your surgery. Our multimodal pain approach will reduce the need for opiate/narcotic pain medicines which further helps to reduce this risk of constipation. *You will want to start your stool softeners 2 days before surgery.*

- _____ Docusate Sodium/Colace 100 mg – take 1 pill 2 times a day
- _____ MiraLAX/Polyethylene glycol 3350 – 17 gm (one cap full) dissolved in liquid 1-2 times per day
- _____ Senakot-S/Senna – 2 tablets 2 times a day

GI Discomfort and Protection | After surgery it is common for patients to have a difficult time with their GI tract and GI discomfort. The surgery can cause some stress gastric inflammation and some of the medicines you will take after surgery can make that worse. To help prevent this from happening we would like you to take a medicine that reduces the acid in your stomach for the first two weeks after surgery.

- _____ Pantoprazole/Protonix 20 mg – take 1 pill a day for 30 days

Nausea and Vomiting Prevention | Multimodal pain management will help to reduce the need for opiate/narcotic pain medication. This will help to reduce your potential for nausea and vomiting postoperatively. Frequent small meals after surgery will help with nausea and vomiting. An empty stomach will make the nausea and vomiting worse. Constipation can worsen your nausea as well so make sure you are taking your stool softeners. If you have had problems with nausea and vomiting in the past make sure you let the anesthesiologist know before your surgery.

- _____ Zofran/Ondansetron 4 mg – take 1 pill every 8 hours as needed for postop nausea and vomiting

Urinary Retention Prevention | Patients that have difficulties with urination before surgery such as difficulties starting to urinate, poor or weak stream, sensation of not emptying your bladder and frequent urination at night are at a higher risk for postoperative urinary retention. Identifying the risk factors is helpful in preventing the problem. There are many modalities we have that can help from medicines taken before and after surgery to bladder scans and prophylaxis foley catheters for the 1st 24 hours after surgery.

- _____ Flomax/Tamsulosin 0.4 mg – take 1 pill daily
- _____ Finasteride 5 mg – take 1 pill daily
- _____ Bladder scan and foley catheter

Medication Scheduler

*Optional for patient to track medications.

*Patients please fill out medication scheduler with the medications on your Home Care Instructions on the previous page

DATE										
Tylenol 1000 mg 3 times daily	am noon pm	am noon pm	am noon pm	am noon pm	am noon pm	am noon pm	am noon pm	am noon pm	am noon pm	am noon pm
Anti-Inflammatory	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
Opiates/Narcotics	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
Blood Thinner	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
Constipation Stool Softener	Time	Time	Time	Time	Time	Time	Time	Time	Time	Time
GI Protection	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily
As Needed Medication										
Nausea/Vomiting										
Urinary Retention										
Exercises Phase 1 & 2	Set 1	Set 1	Set 1	Set 1	Set 1	Set 1	Set 1	Set 1	Set 1	Set 1
	Set 2	Set 2	Set 2	Set 2	Set 2	Set 2	Set 2	Set 2	Set 2	Set 2

Please use this schedule to keep track of medication use. Place the dates in the top row and mark an (X) or time taken for each medication in the boxes for the first 10 days after surgery.

Long Term Follow up

Many people are unaware that they should follow up with their surgeon as part of the long-term care for joint replacements. Despite most hip and knee replacements now lasting for 15-20 years, it is important to follow-up and not take your new joint for granted.

Our typical recommended post-operative follow-up schedule:

- 2 week follow-up for a wound check and new X-rays
- 6 week follow-up to evaluate your recovery
- 1 year follow-up. This is often considered the point of full recovery for a joint replacement.
- Beyond a year, we recommend you follow-up at five and ten years.
- Beyond 10 years, it is wise to follow-up every other year
- We always recommend following up if you have symptoms (worsening pain, function, swelling etc.)
Please call your surgeon's clinic with any other questions or concerns

JOINT REPLACEMENT MEANS A LIFESTYLE CHANGE

In order to get the full benefit of the implant, you must care for your hip or knee replacement – which includes follow up with your surgeon. Similar to owning and maintaining a car for a long time, your joint replacement requires regular monitoring to function optimally for as long as possible. Your age, activity level, body weight, overall health, and type of device implanted are several of the factors that determine how long your joint replacement will last.

A rule of thumb that surgeons follow is a 0.5% per year revision rate. This means that at 10 years, about 5% of patients will likely have had an additional surgery on their hip or knee replacement for any reason, and at 20 years that number would be about 10%. The flip side to this is that at 20 years, 90% of patients will still have the same joint replacement functioning well! There are many studies that suggest when you have long term follow-up with your surgeon, you will have an excellent chance of your implant lasting a long time. This is particularly true if you treat the replacement well by following your surgeon's recommendations for physical activities and sports. Long term follow-up also allows surgeons and researchers to continue to study the lifespan of today's implants.

WHAT DOES “WEARING OUT” OF THE JOINT MEAN?

If you live with a joint replacement long enough, it may eventually wear out. Those who participate in high impact activities may wear their joint replacement out sooner than others. A young, active person with a joint replacement will put a lot more wear on their implants compared to an older person who walks short distances daily. Just as brake pads wear down on a car, the liner in both hip and knee implants will typically wear down over time. For the hip, a ball moves in the socket, which contains either a plastic or ceramic liner. For the knee, the implant on the end of the thigh bone moves back and forth on the implant on top of the shin bone over the plastic liner. For more information, read this article from AAHKS, “What are hip and knee replacement implants made of?” <https://hipknee.aahks.org/what-are-hip-andknee-replacement-implants-made-of/>

Most of the time, the wearing out of the joint replacement doesn't cause an obvious problem. You may notice minimal pain, mild grinding or develop a slight limp. However, the only detectable sign may be subtle findings on new x-rays. If caught early, the required surgery could include just exchanging the plastic liner which has an easy recovery compared to a full revision surgery.

Sometimes when symptoms of increasing pain or worsening grinding occur from a hip or knee replacement, it may be too late to just replace the plastic liner. This type of revision surgery may include exchanging the metal parts in addition to the plastic liner. Good communication with your physician is critical when you start to notice small changes in your joint replacement or if you haven't seen your surgeon in a while. The younger you are at the time of your initial replacement, the more likely you will need a change of the metal, plastic or ceramic parts of your implant in the future.

If you move to another area, you can request to have your x-rays placed on a disc or a portable drive so that you can follow-up with your new physician. It is important to get your records and operative reports to bring with you in case a future surgery is required. We often have colleagues we can refer you to in your new location. We doctors are all on the same team and want the best for you - wherever you may land!

SPORTS AND EXERCISE

Continue to do the exercises prescribed by your physical therapist for at least 2 months after surgery. If you have access to a stationary bicycle, use it to help maintain muscle tone and keep your joints flexible. As soon as your doctor gives you the go-ahead, you can return to many of the sports activities you enjoyed before your hip or knee replacement:

- Walk as much as you would like, but remember that walking is no substitute for the exercises prescribed by your doctor and physical therapist.
- Swimming is an excellent low-impact activity after a total joint replacement; you can begin swimming as soon as the wound is sufficiently healed.
- In general, lower impact fitness activities such as golfing, bicycling, and light tennis, put less stress on your joints and are preferable to high-impact activities such as jogging, racquetball and skiing.
- Authorized recommended sports include walking, stationary bicycle, soft gymnastics, golf, swimming, dance, bowling, and gardening.
- Authorized sports with experience: road biking, hiking, skiing, and doubles tennis, sailing, working out, rowing, and canoeing.
- Unauthorized sports: Football, basketball, soccer, handball, volleyball, jogging, singles tennis, racquetball, bouldering, gymnastics.
- High-intensity sports must be advised against, although evidence of increased injury risks or mechanical complications (early damage, loosening, and periprosthetic fracture) is unclear.

METAL DETECTORS

Many commonly used orthopedic implants may set off the metal detectors at the airport. Over 90% of implanted total hip and knee arthroplasty devices will set off airport metal detectors. Many implants now include ceramic and plastic materials in addition to metal, and the metal will still likely cause an alarm in the metal detector.

A card or note from your physician is not needed for identification of these type of implants. If you or a family member has a metal implant, simply inform the Transportation Security Administration (TSA) officer before screening begins that you've had a hip or knee replacement. Point to the location on your leg where you have the implant. Passengers can use the TSA's Notification Card to communicate discreetly with security officers if they prefer.

Telling the TSA officer or showing this card will not exempt a passenger from the screening. Instead, you'll be instructed to go through the body scan machine. Many people prefer to be screened by the body scan to reduce the likelihood of a pat-down being necessary. If you prefer not to go through the body scan machine, you can opt for the pat-down. Even if you go through the body scan machine, the TSA officer may still need to pat the area around your joint. We recommend allowing additional time for airport screening when traveling with a joint replacement to help ensure a more pleasant travel experience.

DENTAL WORK

Dental cleanings and other dental work can release bacteria into your bloodstream. This bacteria can, in rare cases, cause an infection in your replaced joint. You will need to take antibiotics prior to dental work for at least 2 years after your surgery to prevent infection. If you have an upcoming appointment please call the office and a prescription will be sent your pharmacy.

Having a total joint replacement does put some responsibility on you as the patient, and it is important to care for your replacement even after you are fully healed!

MOVING?

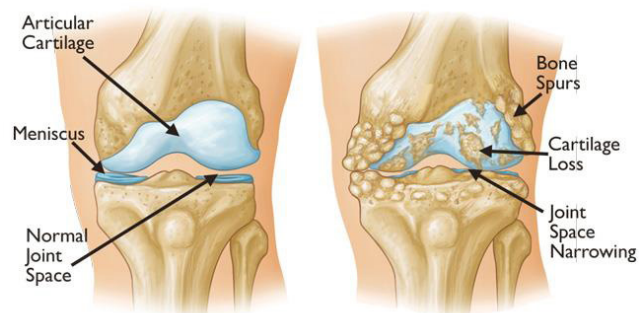
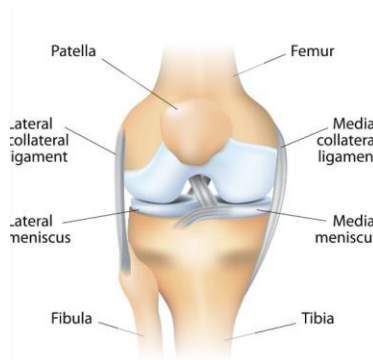
If you move to another area, you can request to have your x-rays placed on a disc or a portable drive so that you can follow-up with your new physician. It is important to get your records and operative reports to bring with you in case a future surgery is required. We often have colleagues we can refer you to in your new location. We doctors are all on the same team and want the best for you - wherever you may land!

What is Osteoarthritis of the Knee

Arthritis is an inflammatory process of your joints. It is a degenerative “wear and tear” of the cartilage and bones of the joint.

As the cartilage wears and frays the protected space between the bones decreases which results in a “bone on bone” rubbing which causes pain and inflammation. Osteoarthritis develops and progresses over time. The causes of osteoarthritis of the knee are not known, but factors that may contribute include joint injury, increasing age, and being overweight. However, osteoarthritis can sometimes be caused by other factors such as the joint may not have formed properly or there may be genetic (inherited) defects in the cartilage. Knee arthritis can make everyday activities such as walking, climbing stairs, and kneeling difficult and painful. The knee joint has three compartments inside, outside and the knee cap.

ANATOMY



The knee joint is made up of the femur, tibia and patella. Each bone is covered with articular cartilage which is a smooth surface that protects the bones from injury and acts as a cushion for your joints. There are 2 wedge shaped pieces of cartilage called the meniscus that act as “shock absorbers” between the femur and tibia. The knee joint is encapsulated by a membrane that releases a fluid that helps lubricate the cartilage and reduces friction.

SYMPTOMS

Pain, swelling, and stiffness are the most common symptoms of arthritis. Symptoms develop gradually over time, although sudden onset is also possible.

- The joint may feel stiff and swollen making it difficult to bend or straighten.
- Pain and stiffness may be worse in the morning or after prolonged sitting.
- Increased activities may worsen symptoms
- There may be locking, popping, buckling, or catching sensations.

Treatment Options

NONSURGICAL TREATMENT | A range of treatment options are available with the goal to relieve the pain and disability that arthritis can cause.

Lifestyle modifications

- Minimize aggravating activities
- Low impact conditioning such as cycling, swimming, or elliptical
- Weight loss can reduce stress on the joint resulting in less pain and increased function

Physical therapy

- A tailored exercise program can increase range of motion and flexibility as well as strengthen core muscle groups

Assistive devices

- Canes, shock absorbing shoes or inserts may increase stability and function
- Unloader braces and hinged knee braces can be used to help with support

Medications

- Over-the-counter (OTC) oral or topical pain relievers and anti-inflammatories: Naproxen (Naprosyn[®], Aleve[®]), Ibuprofen (Motrin[®], Advil[®], Motrin IB[®]), Meloxicam (Mobic[®])
- Acetaminophen (Tylenol[®])

Injections

- Cortisone injections: a powerful anti-inflammatory agent that is injected into the joint. These injections reduce pain and inflammation. The effects of pain relief and length of benefit vary from person to person.
- Viscosupplementation: A “gel” like injection into the knee that contains hyaluronic acid, which helps lubricate the joint and decrease inflammation.
- Platelet Rich Plasma (PRP): A blood draw is performed and platelets are taken from your plasma to help promote your body’s natural healing processes. The effects can vary from person to person.
- Stem Cells: Researchers hope stem cells will one day be effective in the treatment of many medical conditions and diseases. To date stem cell treatments are unproven and not covered by insurance. Stem cell injections can be very costly with no proven benefits.

Other remedies | There are many other therapies such as applying ice or heat, massage and/or acupuncture benefits of which are not proven, but may be helpful to try for symptom management

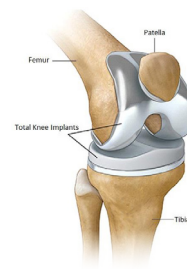
SURGICAL TREATMENT

Arthroscopy | Arthroscopy is not a curative treatment for arthritis but may be used if there is a torn meniscus or other damage to cartilage that is not severe.

- An outpatient surgery where small incisions are made on the knee. A camera and small instruments are placed in the knee to clean up any cartilage damage or meniscal tears.

Total or partial knee replacements | The damaged cartilage and bone is removed and a new metal on plastic surface is placed to help restore function of the knee and decrease pain.

Total Knee Replacement Guide



Advances in knee replacement have made it possible for many people with knee arthritis to reclaim the things they like to do prior to their arthritis.

New technology using computer guidance or robotics along with minimally invasive techniques have made the surgery smaller, quicker, and less painful.

WE USE

- A multidisciplinary team approach
- Multimodal pain management (Including Nerve block and Oral Pain Meds)
- Minimally invasive surgical methods
- Robotically assisted surgery

RESULT

- Greater Precision
- Less Pain
- Quicker Recovery
- Improved outcome and patient satisfaction

MAKO Robotic-Arm Assisted Technology and Real Intelligence CORI Robotic Platform

Our team is one of the few sites in the country that offers expertise in utilizing the industry-leading Stryker Mako and Smith & Nephew CORI robotics systems. These technologies facilitate total knee replacement surgery, increasing accuracy in overall limb alignment, component positioning and sizing that leads to better outcomes and longevity. The MAKO process begins with a CT scan of the patient's knee joint which is used to generate a 3D virtual model of the patient's anatomy. This model is then uploaded on to the MAKO system software and is used to create a pre-operative plan, specific to that patient. Your doctor uses this model to evaluate your bone structure, disease severity, joint alignment and even the surrounding bone and tissue, so they can determine the optimal size, placement, and alignment of your implant.

The CORI Robotic Platform does not use a CT scan, rather it uses intraoperative registration of the patient's anatomy to map out the knee, the long limb alignment and soft tissue balancing. The enhanced robotic software provides the surgeon with real-time surgical planning for bone defects, soft tissue contractures and ligament laxity allowing them to optimize gap balancing and alignment.

During surgery, the orthopedic surgeon guides either robotic-arm and is in control of it at all times. After diseased bone and cartilage are removed from the affected compartment, the orthopedic surgeon places the implant in the knee. During the procedure, the surgeon can make any necessary adjustments while guiding the robotic arm. Throughout your procedure, the robotic system provides real-time data to your surgeon. This allows them to continuously assess the movement and tension of your new joint and adjust your surgical plan if desired.

Robotic technology for total knee replacement helps surgeons improve accuracy over traditional surgery and adjust for muscular and soft tissue alignment. The result allows patients to typically experience:

- A better and longer-performing joint
- Restoration of a natural range of motion in the knee

TOTAL KNEE REPLACEMENT MATERIALS (4 PARTS)

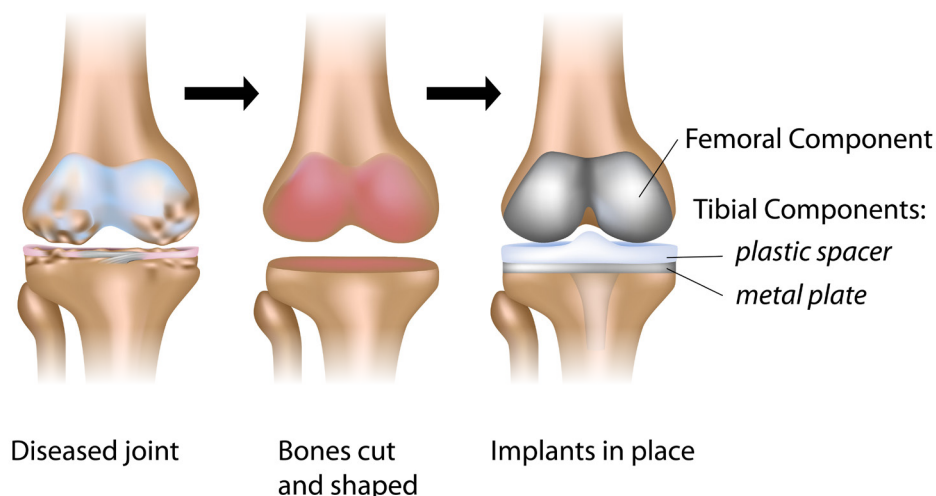
Femur (*thigh*)—top part, Tibia—(*shin*) bottom piece, Liner—serves as your new cartilage, Patella (*kneecap*)—this is an optional part of the surgery and some physicians do not use this as part of the procedure.

Femur Typically made from cobalt-chromium as this material is scratch resistant and safe for use in total knee replacements. The majority of total knee femoral components are made out of cobalt-chromium with excellent long-term success rates. Titanium is often too soft (scratches easily) to be a femoral component in the knee. *For patients that have nickle allergies, alternative surfaces can be used like Oxinium.*

Tibia Made from either titanium or cobalt-chromium with excellent results for each. This portion of the replacement is meant to hold the plastic liner.

Polyethylene (plastic) liner This essentially is your new cartilage and fills the space between the two metal pieces. As with the total hip replacement, this is the “weak link” and is what will possibly wear out with time.

The Patella “button” The under surface of the patella (knee cap) is resurfaced and will be covered with a piece of plastic.



Total Knee Replacement Preoperative and Surgical Education

*This form has been reviewed and e-signed prior to surgery - Please keep as a reference for your records

I have been through the preoperative education for my upcoming total knee replacement and have had my questions regarding the procedure, its risks, and benefits, as well as other surgical and non-surgical treatment options, answered to my satisfaction. I understand that the procedure may not alleviate my pain or return my range of motion. I also understand that there are risks associated with the surgery including, but not limited to, infection, dislocation, instability (“giving out of the knee”), differences in leg length/angulation/rotation, fracture of the bones, loosening or failure of implants, hematoma (blood within the knee joint) which require surgical evacuation, blood clots, pulmonary embolism, nerve injury (foot drop), and blood vessel injury. I realize that the implants may need to be removed or replaced if they wear out. I understand that scarring along the incision is normal and that there may be numbness or tenderness around the incision. I understand that blood loss can occur during or after the surgery which may require transfusion and that with this there is the risk of transfusion-associated diseases.

I understand that with robotic/computer-assisted surgery, additional incisions may be located on the leg separate from the main incision. I also understand that fractures of the bone can occur from placement of pins utilized in robotic/computer-assisted surgery.

I understand that infection of a joint replacement is an unusual but significant problem. If infection of the total knee replacement occurs, further surgery will be necessary including removal of the prosthesis and insertion of a spacer. This may be followed by reimplantation of a new prosthesis in most cases. More serious complications can also occur because of infection including the need for plastic surgery, fusion, or loss of limb (amputation). These more serious cases may not allow for reimplantation of a new prosthesis.

The rehabilitation program has been explained and I realize the restrictions on activity during the rehabilitation period and for the life of the implant. I understand that bracing may be necessary to protect the joint. I can, and will, comply with all recommendations regarding my activity.

I understand that anesthesia involves additional risks and hazards, but I request the use of anesthetics for relief and protection from pain during the procedure(s). I realize the anesthesia may have to be changed, possibly without explanation.

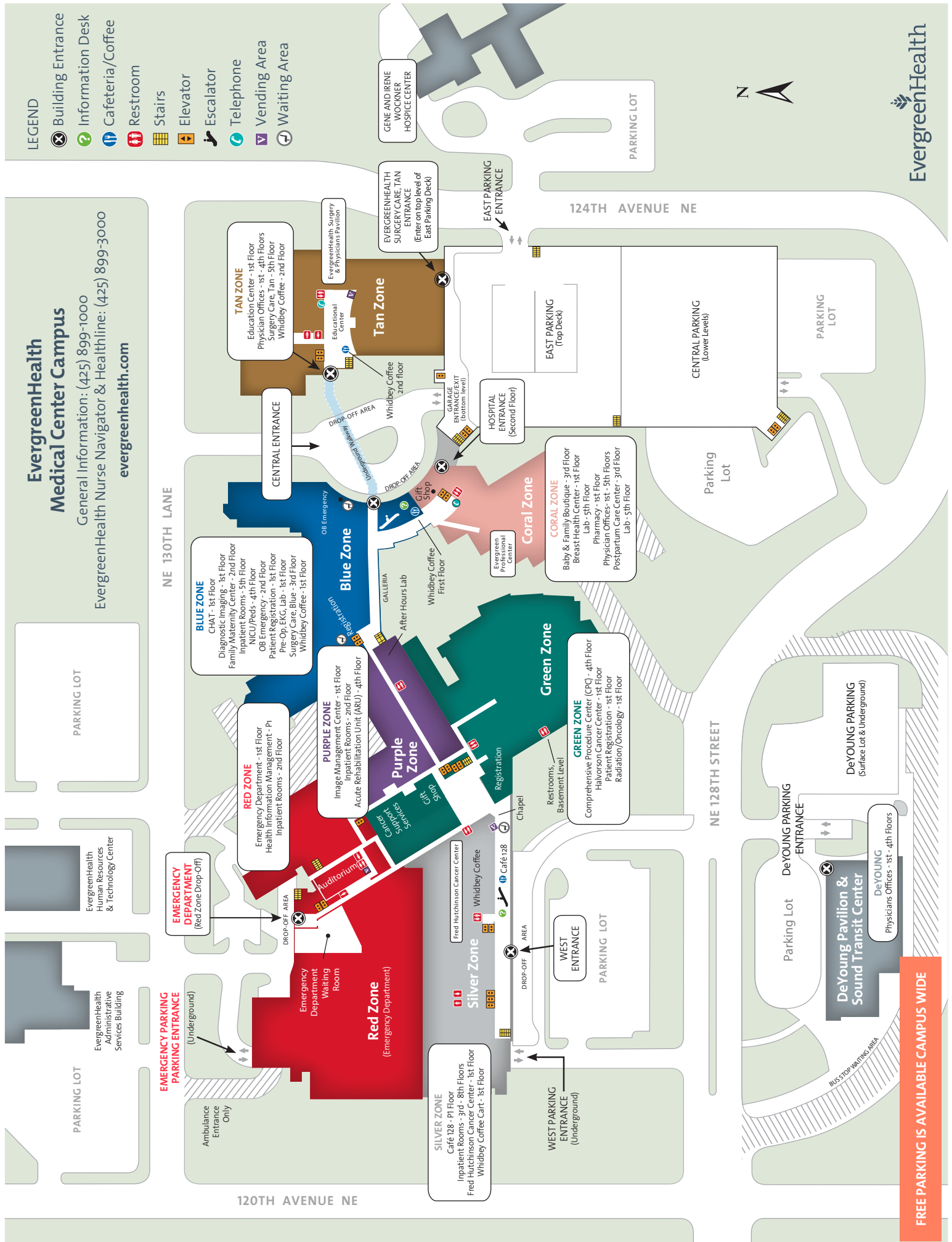
I understand that certain rare complications may result from the use of any anesthesia, including respiratory problems, drug reactions, paralysis, brain damage, or even death. Other risks and hazards which may result from the use of general anesthetics range from minor discomfort to injury to vocal cords, teeth, or eyes. I understand that other risks and hazards from regional anesthetics (spinal anesthesia, epidural anesthesia, and nerve blocks) may include headache, chronic pain, nerve injury, and infection.

The anesthesiologist will review the risks, benefits, and alternatives of anesthesia prior to the procedure and make the best medical judgment regarding the plan for anesthesia.

EvergreenHealth Medical Center Campus

General Information: (425) 899-1000
EvergreenHealth Nurse Navigator & Healthline: (425) 899-3000
evergreenhealth.com

- LEGEND**
- Building Entrance
 - Information Desk
 - Cafeteria/Coffee
 - Restroom
 - Stairs
 - Elevator
 - Escalator
 - Telephone
 - Vending Area
 - Waiting Area



FREE PARKING IS AVAILABLE CAMPUS WIDE

