Date Of Surgery: _____

Location:

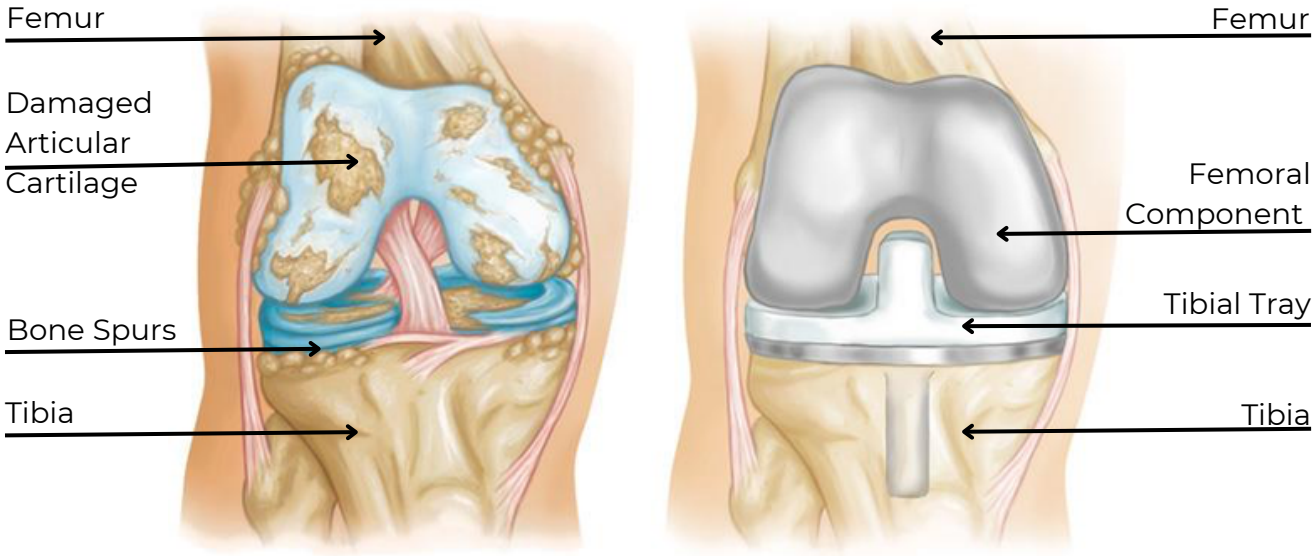
OrthoColorado Hospital	Centennial Hospital	South Denver Surgery Center
11650 W 2nd Place, Lakewood	14200 E Arapahoe Rd, Centennial	300 E Mineral Ave. Unit 9, Littleton

Facility will call you directly to inform you of arrival time and start time of surgery

Post Op Appointment: _____

Highlands Ranch Office	Centennial Office
640 Plaza Dr #300, Highlands Ranch	14000 E Arapahoe Rd #290, Centennial

Your Knee Replacement with Dr. Jesse Chrastil



An Osteoarthritic Knee

A Knee After Knee Replacement

PANORAMA
Orthopedics & Spine Center

FEEL BETTER. DO MORE.

Table of Contents

PLEASE READ ENTIRE BOOKLET

Use this table of contents to quickly refer back to the book for guidance during your knee replacement process.

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Your Arthroplasty Team



Your Surgeon:

Jesse Chrastil, MD

Dr. Chrastil has been performing Knee and Hip Replacements since 2014 and is specially trained in minimally invasive approaches. He also has extensive experience with outpatient surgery and extended recovery to meet the specific needs of each patient. Dr. Chrastil operates at 3 different surgical facilities and sees patients at the Highlands Ranch and Centennial Clinics.



Your Physician Assistant:

Jessica Wieczorek, PA-C

Jess supports Dr. Chrastil as both a surgical and clinical PA, so she may be assisting in your surgery or you may be seeing her in clinic on Tuesdays and Thursday's in Highlands Ranch, or on occasional Friday's in Centennial. She has worked within the Total Joint Replacement specialty since 2018.



Your Physician Assistant:

Rebecca Grosh, PA-C

Becky supports Dr. Chrastil as a clinical PA, so you may see Becky in clinic on Monday's in Highlands Ranch. She has worked within the Total Joint Replacement specialty since 2014.

<u>Please note:</u> Dr. Chrastil, Jessica, and Rebecca are <u>not</u> readily available for phone calls, therefore Chaelyn and Kate are your direct contacts for questions. Please see next page for contact information.

Your Arthroplasty Team

Clinic Line: 720-497-6191 | Fax: 720-497-6704
Email: drchrastilpc@panoramaortho.com



Your Surgical Care Coordinator:
Kate Taylor, CMA

Kate handles surgery scheduling and perioperative optimization for Dr. Chrastil, Jess, and Becky. You will also see Kate for your initial 2 week post-op appointment.

Kate has worked closley with Dr. Chrastil and his PA's since 2022 and see's post-op patients at the Highlands Ranch clinic Mondays and Wednesdays.



Your Clinical Medical Assistant:
Chaelyn Sipres, CNA

Chaelyn handles medical and clinical concerns, and assists with prescription refills. She works in clinic with Dr. Chrastil, Jess, and Becky as a liaison between clinical needs and questions via MyChart and phone call.

Chae has worked with Dr. Chrastil and his team since 2026 and travels with the care team to respective locations.

<u>Please Note:</u>
Since Kate and Chaelyn are often in clinic seeing patients or assisting with clinical operations, they may not be readily available to answer questions via phone, therefore you will be prompted to leave a message for the team. Rest assured, we will answer your phone call promptly.

Any calls relating to billing, authorizations, or scheduling follow-up or physical therapy appointments may be forwarded to the corresponding department to handle.

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Principle Care Management (PCM) Services

At Panorama Orthopedics and Spine Center, we are committed to providing you with high-quality, personalized care - especially as you prepare for your joint replacement surgery.

As part of your care, your surgeon will develop a customized treatment plan tailored to your specific needs. This process includes:

- *Gaining a thorough understanding of your health history.*
- *Gathering important information from your primary care physician and any specialists involved in your care.*
- *Reviewing your pre-operative testing and laboratory results.*
- *Designing a surgical plan based on your imaging studies.*
- *Selecting the most appropriate facility for your procedure.*
- *Creating a comprehensive plan for your care before, during, and after surgery.*

These proactive steps are part of a service called **Principle Care Management (PCM)**. PCM helps ensure that every aspect of your care is carefully coordinated and designed to support the best possible outcome.

Insurance and Billing Information:

Principle Care Management is a billable service that is submitted to your insurance. Depending on your specific coverage, this may result in a cost-sharing responsibility such as copayments, coinsurance, or deductibles.

If you have any questions about this service or your financial responsibility, please don't hesitate to contact our office. We are here to support you every step of the way.

Surgery Locations and Contact Info

OrthoColorado Hospital

Main Line: (720) 321-5450

Pre-Operative Total Joint Class: (720) 321-5618

Pre-Admission Testing: (720) 321-5450

11650 w 2nd Pl, Lakewood, CO 80228

Cross streets: Union Boulevard and West 2nd Place- Located in St. Anthonys Medical Plaza

Centennial Hospital

Main Line: (303) 699-3000

Pre-Admission Testing: (303) 695-2764

14200 E Arapahoe Rd, Centennial, CO 80112

Cross streets: Arapahoe Road and Jordan; I-25 and Arapahoe Road

South Denver Surgery Center

Main Line: (720) 360-3400

300 E Mineral Ave #9, Littleton, CO 80122

Cross streets: *Broadway and Mineral- across the street from Littleton Adventist Hospital*

This facility is outpatient only

Important Phone Numbers

For any questions for Dr. Chrastil, Jessica Wieczorek, or Rebecca Grosh, or questions regarding surgery or medical questions, please reach out to our medical assistant's, Kate and Chaelyn.

After Hours Line:

URGENT Medical Questions or concerns to be addressed after hours and on weekends.

303-233-1223- You will be directed to on-call provider.

Prescription Refills:

Please call the number below for prescription refills- Monday- Friday; 7am-3pm. Refills called in over the weekend will be addressed the next business day.

720-497-6191

Please allow 24 hours for refills to be addressed

Clinic Appointment Scheduling Line:

Please call this number for scheduling an appointment with Dr. Chrastil or his team.

303-233-1223; Option 2 then Option 1

Physical Therapy Scheduling:

This number will direct you to our physical therapy appointment schedulers who can assist in getting visits set up at a location close to you.

303-274-7330

Billing Office:

Please direct any billing questions to the number below. Our billing team can help with costs following surgery.

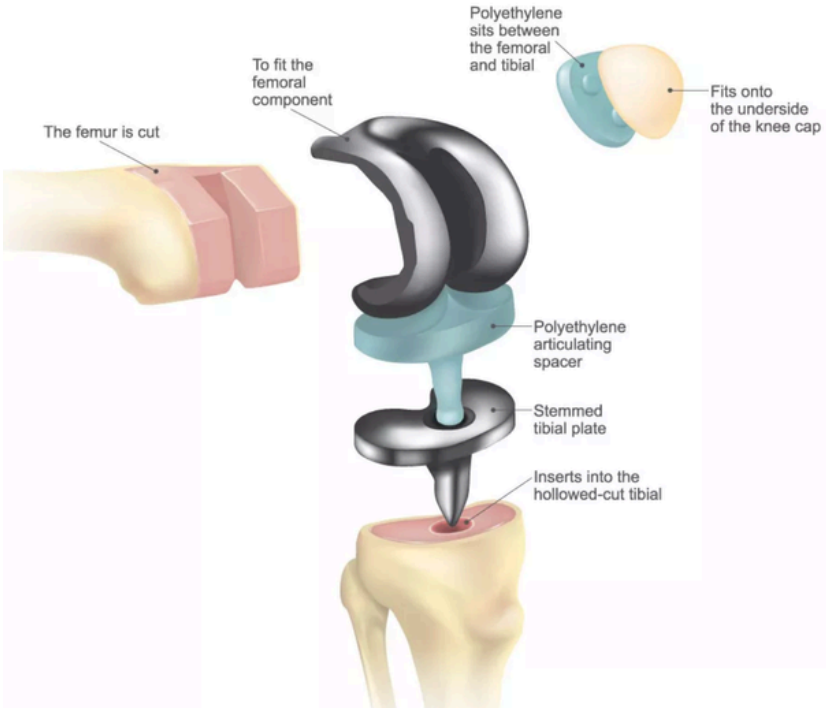
720-497-6637 or customerserviceteam@panoramaortho.com

Total Knee Replacement Surgery Overview

The wording of total knee replacement surgery is a bit of a misnomer. It is much more of a "knee resurfacing" procedure than a true "replacement". Very little bone is removed during the procedure and only the damaged, arthritic bone is removed. It is only the bony surfaces that are replaced with metal and plastic, not the entire joint.

To find out more, watch Dr. Chrastils videos at:
https://www.panoramaortho.com/find-a-doctor/jesse-chrastil/

Or an animation for the American Academy of Orthopedic Surgeons:
https://orthoinfo.aaos.org/en/treatment/total-knee-replacement-animation/



Overview

After you have decided with Dr. Chrastil it is time to proceed with knee replacement, you will be given this booklet of information. **Please read it in its entirety, as it has important information regarding your upcoming procedure.**

Overview of What to Expect:

- First, surgical date and facility will be selected, insurance approval will be obtained.
- You then will need pre-operative medical clearance from your primary care provider (PCP).
- Surgery itself takes about 60-90 minutes.
- Typically surgery is performed under a spinal anesthetic to minimize the amount of sedating medications required (but yes, you are still sleeping through the surgery).
- Following the procedure you will wake up in the recovery room.
- You will work with physical therapy (PT) at the facility and will be able to place as much weight as you would like on the knee.
- Outpatient physical therapy will start 4-7 days after your surgery.
- You will follow up with Dr. Chrastil's physician assistant or medical assistant, Jessica Wieczorek or Kate Taylor, at 2 weeks and 6 weeks from surgery.

Surgery at OrthoColorado and Centennial Hospital:

- Plan for same day discharge home verses overnight stay in the hospital will be discussed prior to procedure with our nurse navigation team. Our goal is for same-day discharge, however, we always recommend being prepared to stay the night if indicated medically.

Surgery at South Denver Surgery Center:

- This an entirely outpatient facility with the benefit being it will be planned for you to discharge home same day. Knee replacement in a surgery center is safe and Dr. Chrastil does them routinely.

Overview

Surgery Scheduling:

- Kate Taylor, Dr. Chrastil's surgical scheduler, most likely scheduled your surgery in person after meeting with Dr. Chrastil and electing to proceed with surgery. If not, please contact Kate (see page 3) to schedule surgery.
- For financial guidance and what your insurance covers, please call our business office (*see page 4*) and speak with one of our pre-authorization specialists.
- Avoid any injection of the *operative* knee 3 months before surgery- injections into other joints (spine, hip, shoulder, hand, wrist) are okay to get prior to surgery.

Medical Clearance:

- Prior to surgery, you *must* have medical clearance from your primary care provider. Please call your PCP to schedule this appointment. This must be within 30 days of your scheduled procedure. If this clearance is not completed within 30 days prior to your surgery, the procedure may have to be canceled or rescheduled.
- You can expect to have labs drawn, an EKG performed, and a general physical completed.
- We will have sent orders over to your primary care physician when you scheduled surgery, but a copy of the requested labs and diagnostic studies has been included in this packet. Please take the form with you to your pre-op visit, just in case they did not receive the form from our office.

What To Do Prior To Surgery

4-6 Weeks Prior to Surgery:

Dr. Chrastil and his team recommend you identify a friend or family member as your "total joint care provider". This person can:

- Attend education sessions with you.
- Stay with you for the first 2-3 days following surgery.
- Help with medications, care, transportation, etc.
- Take you home from the hospital/surgical center.
- Help you manage stress and anxiety following surgery.

Arrange a Surgical Clearance Visit with your Primary Care Provider:

- This is important- Surgery cannot proceed without prior clearance!
- Please schedule this visit to take place within 30 days of your scheduled surgery.
- If you are having trouble getting an appointment with your regular primary care provider, you may see a different doctor, physician assistant, or nurse practitioner to complete this clearance.
- If you are still having trouble arranging this appointment, please contact our office so we can discuss how to obtain these clearances.

Pre-Surgery Dental Clearance:

- You should have a dental exam within 6 months of surgery to ensure there are no major issues. This may include a routine cleaning.
- Dental issues could lead to an increased risk of infection in your new knee joint.
- Major dental work must be completed at least 1 month prior to surgery.

What to Do Prior to Surgery

Pre-Surgery Dental Clearance Cont.:

- Non-urgent dental work should be postponed for 3 months following surgery.
- Antibiotics for dental procedures are no longer recommended after knee replacement for "routine cleanings" unless underlying health concerns (immunocompromised patients) or major dental issues are encountered (active dental infection). Please contact us with questions about this.

Tobacco Use:

- Tobacco cessation is important in the recovery following a knee replacement. The use of tobacco immediately prior to surgery or during recovery increases the risk of infection and post-operative complications. Speak with Dr. Chrastil or his team with any questions about tobacco cessation.

2 Weeks Prior to Surgery:

Physical Therapy:

- We recommend setting up physical therapy appointments prior to your procedure.
- It is often helpful to set up therapy sessions prior to surgery to do an initial "pre-hab" visit showing you exercises to do in preparation for your surgery. This will also give you a good opportunity to meet your physical therapist, as well as see the facility.
- You should have your first formal physical therapy visit 4-7 days after your knee replacement surgery.
- You can expect to go you physical therapy 2 times a week for 6 weeks.

What to Do Prior to Surgery

Anesthesia:

- On the day of surgery, your anesthesiologist will discuss the anesthetic plans with you.
- Most patients will receive a spinal anesthetic with sedation so you will be numb from the waist down until this wears off.
- You will be sleeping and unaware of the surgery but with less medication administered than a general anesthetic would require.

Obtaining Canes and Walkers:

- Purchase or borrow a two-wheeled walker (often used for 1-2 weeks).
- A cane is a nice transition piece from the walker (additional week) to walking without an assisted device.
- Optional purchases: Shower chair, toilet seat riser, hand-held shower sprayer.

1 Week Prior to Surgery:

- Contact Dr. Chrastil if there is any change in your medical condition prior to surgery (illness, infection, cuts/scrapes, etc.).
- Do not shave legs the week prior to surgery to avoid any cuts or nicks.
- Start using CHG Soap (see page 35).
- If you have pets, arrange for care as they may be tripping hazards and they should be kept away from your incision to minimize infection risk.
- Remove small rugs or tripping hazards throughout your home.
- Arrange post-op care and transportation such as:
    - Rides to and from the hospital/surgery center.
    - Rides to outpatient physical therapy.
    - Arrange pre-made meals.

What to Do Prior to Surgery

48 Hours Prior to Surgery:

- The hospital or surgery center nurses will call you to go over your health history and last-minute instructions including when to stop eating and drinking.
- The nurses will also inform you what time you need to arrive at the hospital or surgery center.

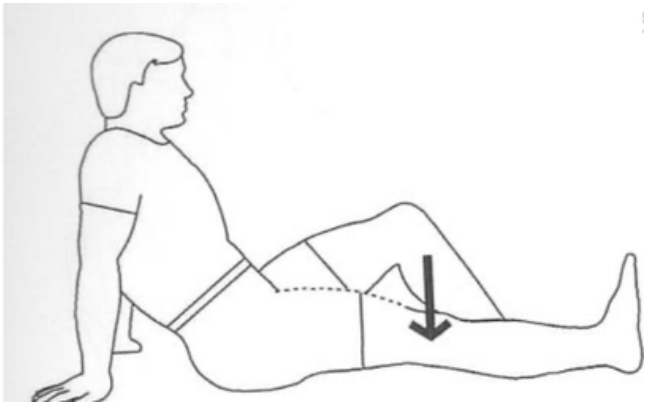
1 Day Prior to Surgery/Day of Surgery:

- Stay well hydrated the day before the surgery (water, juice, Gatorade).
- Do NOT eat or drink anything after midnight the evening prior to surgery! If you eat on the morning of surgery, your surgery will have to be canceled.
- On the morning of surgery, only take medications as instructed by your primary care provider or by Dr. Chrastil.
- Bring your glasses, hearing aids, dentures to the hospital with you.
- Bring your photo ID and insurance cards to the hospital.
- Wear loose-fitting clothes and supportive, but easy-to-slip-on shoes.
- Do not apply lotions, deodorant, or perfumes.
- Leave valuables and jewelry at home.
- Make sure you and your "total joint providers" contact information is up to date and available on the day of surgery in case the hospital or Dr. Chrastil's team needs to contact you.

Pre-Operative Exercises

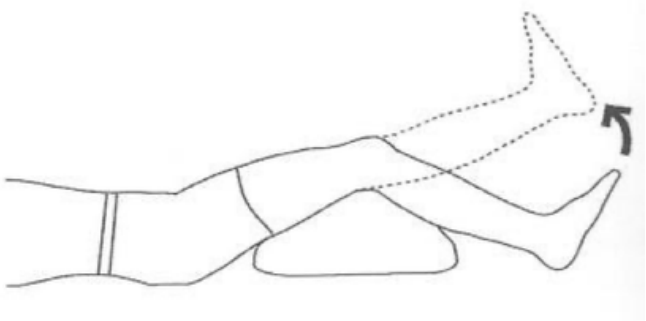
- If you are currently performing an exercise program, continue to do so.
- If you are not currently performing an exercise program, you may incorporate exercises as directed below.
- These exercises are optional.

Quad Set



- Sit with involved leg extended.
- Tighten quad muscles on front of leg, trying to push the back of the knee downward.
- Do not hold your breath!
- Perform 1 set of 10 repetitions, once a day. Hold muscle contraction for 10 seconds.

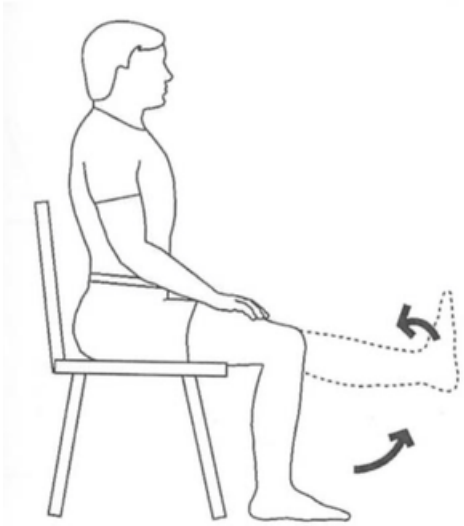
Supine Knee Extension



- Lie on back, with involved leg bent to 45 degrees, supported with a pillow, as shown.
- Straighten leg at knee
- Return to start position
- Perform 1 set of 10 repetitions, once a day. Perform 1 repetition every 4 seconds.

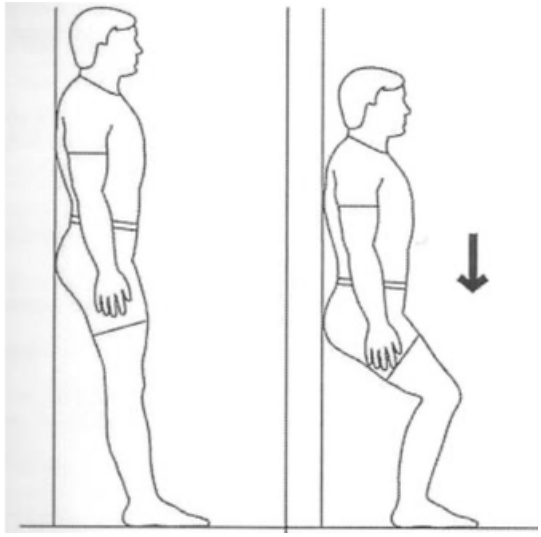
Pre-Operative Exercises

Seated Knee Extension



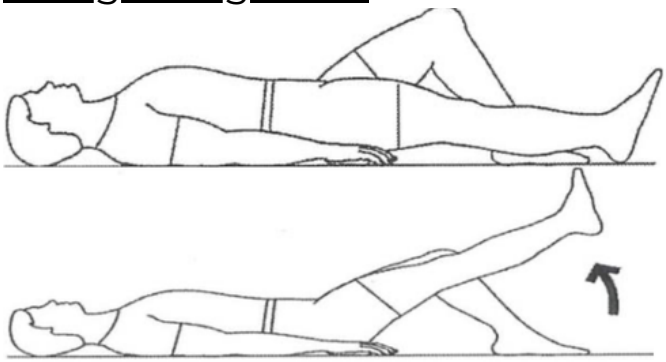
- Sit against a wall, chair, or on a firm surface, knee bent.
- Keep a proper curve in the low back, as shown.
- Flex foot upward, while straightening knee.
- Repeat stretch with other leg.
- Do not allow low back to lose the curve. It is common to experience shaking in the leg. Perform 1 set of 4 repetitions, once a day.
- Hold contractions for 20 seconds

Mini Wall Squat



- Lean on a wall, feet approximately 12 inches from the wall, shoulder distance apart.
- Bend knees to 45 degrees and hold for 5 seconds.
- Return to starting position.
- Perform 1 repetition every 4 seconds. Perform 1 set of 10 repetitions once a day.

Straight Leg Raise



- Lie on your back with uninvolved knee bent as shown.
- Raise leg to thigh level of bent leg
- Return to starting position
- Perform 1 set of 10 repetitions, once a day. Perform 1 repetition every 4 seconds.

Medications Prior to Surgery

Stop at Least 7 Days Prior to Surgery:

Anticoagulation Medications such as Eliquis, Xarelto, or Coumadin need to be discontinued at *minimum of 72 hours* prior to your procedure. Plavix must be stopped *at minimum of 5 days* prior.

Stop all Aspirin* containing products such as:				
Coated ASA	Uncoated ASA	Ecotrin	BC Powder	Disalsid
Salsalate	Dolobid	Diflunisal	Alka-Seltzer	Goody Powder
Norgesic	Pepto Bismol	Percodan		

*If you have Heart Stents and take Plavix and Aspirin, **DO NOT STOP ASPIRIN!**

As directed by your PCP/Cardiologist stop all Antiplatelet* Medications such as:		
Aggrenox (aspirin + dipyridamole)	Plavix (clopidogrel)	Pletal (cilostazol)
Trental (pentoxil)	Ticlid	

*If You Have Heart Stents: DO NOT STOP PLAVIX DIRECTED BY A CARDIOLOGIST PRIOR TO SURGERY

Stop birth control pills & any male or female hormone (including creams or patches) such as:				
Estrogens	Estradiol	Estraderm	Premarin	Prempro
Estrace	Estratest	Ogen	Emcyt	Testosterone.

Medications Prior to Surgery

All herbal & weight loss medications such as:

Alpha lipoic acid	Cinnamon	Chamomile	Creatine	Echinacea
Acetyl L-carnitine	Ephedra	Fish Oil	Garlic	Ginkgo
Milk Thistle	Glutamine	Goldenseal	Licorice	Kava
L- carnosine	Ginseng	Skullcap	Saw Palmetto	St. John's Wort

Stop all vitamins and joint supplements containing products such as:

Vitamin A	Vitamin C	Vitamin E	Vitamin K	Fish Oil
Omega 3,6,9	CoQ10	Juice Plus	Krill Oil	Glucosamine
Chondroitin MSM				

Stop all non-steroidal anti-inflammatory (NSAID) medications such as:

Ibuprofen	Advil.	Nuprin.	Ketoprofen	Oruvail
Orudis	Relafen	Nabumetone	Arthrotec	Voltaren
Tolectin	Tolmetin	Cataflam	Clinoril	Sulindac
Oxaprozin	Daypro	Diclofenac	Etolodac	Mobic
Meloxicam	Naproxen	Naprosyn	Indocin.	Indomethacin
Celebrex	Celecoxib	Aleve	Anaprox	Ansaid
Feldene	Piroxicam	Naprelan	Lodine	Meclomen
Meclofenamate.	Mediprin			

Contact your primary care provider for instructions if you take any of the following medications:

Humira	Remicade	Imuran	Enbrel	Rituxan
Actemra	Kineret	Cosentyx	Stelara	Benlysta
Xeljanz	Cimzia	Orencia	Librium	Librax
Cytoxan	Adderall			

***Your prescribing physician should help with monitoring these medications

Unlisted Medications

If you do not see a medication that you are taking on these lists, please contact your primary care provider to ask when to stop taking it.

You may continue taking the following medications:

- Cholesterol medications
- Psychiatric medications
- Gabapentin
- Tylenol (extra strength, regular, arthritis)
- Ultram (Tramadol)
- Ultracet
- Iron Supplements
- Blood pressure medications- see additional instructions below regarding your blood pressure medication.

You should NOT take the following blood pressure medications on the day of surgery:

- ACE inhibitors. Common ACE inhibitors include:
  - Benazepril (Lotensin), Captopril (Capoten), Enalapril (Vasotec), Lisinopril (Prinivil, Zestril), Quinapril (Accupril)
- Angiotensin Receptor Blockers (ARBs). Common ARBs include:
  - Losartan (Cozaar), Olmesartan (Benicar), Telmisartan (Micardis), Valsartan (Diovan)
- Diuretics. Common Diuretics include:
  - Hydrocholorothiazide (HCTZ, Microzide), Furosemide (Lasix), Spironolactone (Aldactone), Triamterene (Dyrenium), Chlorthalidone, Bumetanide
- Pills that contain combinations of ACE inhibitors, ARBs, or diuretics.

Unlisted Medications

It is okay to take the following blood pressure medications on the day of surgery:

- Beta-blockers. Common beta blockers include:
  - Atenolol (Tenormin), Metoprolol (Lopressor, Toprol), Carvedilol (Coreg), Propranolol (Inderal), Acebutolol, Bisoprolol, Nadolol, Penbutolol, Pindolol
- Calcium Channel Blockers. Common calcium channel blockers include:
  - Amlodipine (Norvasc), Diltiazem (Cardizem, Tiazac), Nifedipine (Procardia), Verapamil (Calan, Verelan, Covera-HS), Nicardipine (Cardene SR), Felodipine
- Vasodilators. Common vasodilators include:
  - Hydralazine, Minoxidil, Clonidine (Catapress), Doxazosin (Cadura)

GLP-1 Medications:

- We kindly ask that you stop your GLP-1 medication depending on how often you take this medication. If you take this medication once a week, then you will stop this 1 week prior to surgery and hold resuming until you are 1 week out from surgery. If you take this daily, you will stop one day before your surgery and resume one day after your surgery.
- Common GLP-1 Medications: Ozempic/Semaglutide, Wegovy, Mounjaro

Preventing and Treating Opioid-Induced Constipation:

2 Days before surgery:

- For constipation, start Senna-S (Senna + Docusate)
  - Can substitute with Senna and Docusate as separate medications.
- Take 2 tablets, twice a day starting 2 days before surgery- if you experience loose or watery stools, STOP using the Senna-S and resume it the night of surgery.
- Drink at least eight 8-ounce cups of water daily.
- Be active.
- Eat foods high in fiber.

Surgery and Hospital Course

The Day of Surgery:

With this minimally invasive knee replacement and contemporary pain control methods, most of Dr. Chrastils patients will go home the same day or the day after surgery.

Pre-Operative Unit:

- You will arrive at the front desk of the hospital or surgery center 2-3 hours prior to your surgery. The facility will call you a few days prior to your surgery to inform you what time to arrive.
- You will be taken to the preoperative area where you meet with nurses, anesthesiologists, and Dr. Chrastil.
- An IV will be placed in preparation for your procedure.
- Any remaining questions or concerns that you have will be addressed.
- You will be taken to the operating room for your surgery.
- The surgery takes approximately 1 hour.

Recovery Unit:

- After surgery, you will spend approximately one hour in the recovery room, where nurses will monitor you as you recover from anesthesia.
- If you are planning on discharging the same day, you will be in the recovery unit longer.
    - You will be required to get up and move, use the restroom, and will be determined to be safe to discharge to home by physical therapy and nurses in the recovery unit.
    - You can spend most of the day in the recovery area, so please coordinate with your "total joint provider" so they can plan appropriately.
- If you are to be admitted to the hospital, after approximately one hour in the recovery unit the nurses will contact your family/friends to let them know the room number.

Surgery and Hospital Course

Hospital Unit ("The Floor"):

- If you plan on staying the night at the hospital you will be admitted to a private room on the floor, where the nursing staff will care for you.
- Your pain will be monitored and controlled. Please note it is impossible to be completely pain-free after a knee replacement surgery, however, staff will aim to keep your pain around 3 out 10 at rest.
- On the day of surgery, you will walk with a walker, which is Dr. Chrastil's preferred assistive device. It is stable and reduces the risk of falls in the postoperative period. Unless otherwise instructed, you will be allowed to put full weight on the operative leg.
- Early walking is good for your new knee replacement. Walking is the most important thing you can do to prevent blood clots. Moving your leg is more important than the medications we give to prevent clotting.

The Day after surgery (post-operative day #1), if you stay in the hospital:

- Labs will be drawn in the morning.
- The physical and occupational therapists will continue to work with you on walking, stairs, bathing, getting dressed, and other activities required for daily living.
- Most patients who stay in the hospital will be discharged to go home on postoperative day #1.

Surgery and Hospital Course

Post-Operative Day #2:

- If you are still in the hospital on postoperative day 2, you will work with physical and occupational therapists to help you regain independence. You will go home after you fulfill the goals of therapy.
- If it is determined that you require extra assistance, or that going home will not be ideal for your recovery, then our case managers at the hospital will arrange for you to be transferred to a skilled nursing facility or rehabilitation until you are ready to go home.
- Please note that Dr. Chrastil does not make the determination on whether a rehab facility is the ideal placement. This decision is made in the hospital by the recovery team and case management arranges with insurance.

Post-Operative Medications

All post-operative medications will be sent the day of surgery.

Narcotic pain medications "as needed" for pain control *You will be prescribed one of the following in addition to Tramadol depending upon your medical and medication history:*
Oxycodone (Percocet): Short-acting pain pill to be used as needed for breakthrough pain. You may take 1-2 tablets every 4 hours.
Hydrocodone/Acetaminophen (Norco or Vicodin): Short-acting pain pill to be used as needed for breakthrough pain. You may take 1-2 tablets every 4-6 hours. The daily limit is 12 pills in 24 hours.
Hydromorphone (Dilaudid): Short-acting pain pill to be used as needed for breakthrough pain. You may take 1-2 tablets every 4 hours.
Tramadol: Short-acting pain pill to be used as needed. You make take 1-2 tablets every 4-6 hours. (May Combine with Above Narcotic Pain Medications)

Prescription non-steroidal anti-inflammatories: *You may be prescribed one of the following depending on your medical history:*
Meloxicam (Mobic): Anti-inflammatory, take 15 mg once a day for a total of 6 weeks after surgery. Make sure you take this medication with food.
Celecoxib (Celebrex): Anti-inflammatory, take twice a day for a total of 6 weeks after surgery. Make sure you take this medication with food.

Post-Operative Pain Medications

Blood thinning medication to prevent blood clots *Either Aspirin or Eliquis will be used as a blood thinner based on your medical history. In certain cases, other blood thinners (Lovenox or Coumadin) will be substituted.* *You will be prescribed one of the following depending on your medical history.*
Aspirin: 81mg tablet to be taken twice a day for 30 days after surgery, to help prevent blood clots. (Ok to stop after 30 days)
Protonix (Pantoprazole): Stomach protector: Take 1 tablet daily, in the morning to protect your stomach. You should continue to take this medication for 30 days while you take aspirin.
Eliquis (Apixaban): 2.5mg tablet to be taken twice a day for 14 days total after surgery to help prevent blood clots.

Constipation prevention *These can be found over-the-counter at most pharmacies*
Senokot-S (SennaPlus): Stool softener/laxative for constipation. Take 2 tablets twice a day starting 2 days before surgery until you are off all narcotics after surgery.
Other over-the-counter alternatives: Miralax, Exlax, Milk of Magnesia

For refills on any post-operative medications please call, 720-497-6191.

Medications are refilled Monday-Friday from 7:00 AM to 3:00 PM.

Please note we do not refill medications on weekends or holidays. Please call for a refill in advance.

Medication Schedule

Daily Medication Schedule [AM]

Today's Date: _____/_____/_____

Medication Taken:	Time medication taken (use military time)					
	0200	0400	0600	0800	1000	1200
Blood Thinner						
Anti-inflammatory						
Protonix						
Constipation Med						
Narcotic Med						
Tramadol						

Daily Medication Schedule [PM]

Today's Date: _____/_____/_____

Medication Taken:	Time medication taken (use military time)					
	1400 (2pm)	1600 (4pm)	1800 (6pm)	2000 (8pm)	2200 (10pm)	2400 (MN)
Blood Thinner						
Anti-inflammatory						
Protonix						
Constipation Med						
Narcotic Med						
Tramadol						

Notes: _____

_____

Medication Schedule Example

This form is to be used as an example ONLY

Daily Medication Schedule [AM]

Today's Date: _____/_____/_____

Medication Taken:	Time medication taken (use military time)					
	0200	0400	0600	0800	1000	1200
Blood Thinner				ASA81		
Anti-inflammatory				Mobic		
Protonix				X		
Constipation Med			X			
Narcotic Med		1 tab		2 tabs		1 tab
(using Oxycodone)						
Tramadol			1 tab			

Daily Medication Schedule [PM]

Today's Date: _____/_____/_____

Medication Taken:	Time medication taken (use military time)					
	1400	1600	1800	2000	2200	2400
Blood Thinner				ASA81		
Anti-inflammatory						
Protonix						
Constipation Med			X			
Narcotic Med		1 tab			2 tabs	
Tramadol			1 tab			1 tab

The above chart can be found on Dr. Chrastil's Panorama Page:
https://www.panoramaortho.com/find-a-doctor/jesse-chrastil/
Follow the link to Extra Medication Charts to print more and keep track of your medications.

What to Expect After Surgery

Post-Operative Swelling:

- Bruising and swelling throughout the operative leg within the first two weeks is to be expected and may get worse before getting better. Continue to wear your compression socks (TED hose that are provided by hospital) and elevate operative leg to help with swelling.
- You will wear the compression socks for 2 weeks following your surgery.

Post-Operative Pain:

- EXPECT to have some pain after surgery requiring narcotic-level pain medication regimens. Pain will continue to improve over the first 6 weeks.
- It is very common to have pain throughout operative leg.
- Dr. Chrastil's goal is to keep you comfortable. A reasonable goal is to keep your pain at 3-4 out of 10 or less while you are at rest. You may have pain that is greater than 3-4 out of 10 while you are walking and moving your knee in the first several weeks. This is a normal part of the healing process.
- It is important that you stay ahead of your pain and adjust your pain medications when you are feeling greater than 3-4 out of 10 pain while at rest.
- It is expected that you wean off your pain medication as you get further out from surgery and pain continues to improve.

What to Expect After Surgery

Post-Operative Follow-Up 2 Week:

- Your first post-operative appointment will be approximately two weeks from the time of surgery with Dr. Chrastil's physician assistant, Jessica Wieczorek, or Dr. Chrastil's medical assistant, Kate Taylor.
- The two-week appointment includes an incision check, standard physical examination, and medication check/refill.
- Please bring ALL of the post-operative medications that you are currently taking (either written down or in a bag) so Jessica/Kate can review and adjust them as needed.

Post-Operative Follow-Up 6 Week:

- Your second post-operative appointment will be approximately six weeks after your surgery with Jessica Wieczorek.
- The six-week appointment includes a physical examination, medication check, and at this time there will be x-rays.
- Telemedicine visits for post-operative follow-ups are available if you prefer. Please contact our team if you would like to schedule a virtual follow up.

Post-Operative Follow-Ups AFTER Six Weeks:

- Further follow up visits occur at 4-6 months, 1 year, 3 years, 5 years, and every 5 years thereafter, or as determined by your surgeon.
- It is important to come in for routine evaluations and x-rays, even if you are feeling great, to monitor the implant for any signs of loosening, wear, or early failure that should be addressed. Should you desire to schedule a visit for any reason whatsoever, you are always welcome to do so.

What to Expect After Surgery

Post-Operative Sleep and Energy Levels:

- Sleeping may be difficult in the first several weeks to months due to the physiologic burden of surgery, new medications you are on, and a change in your activity level. This may lead to fatigue and decreased energy levels, which is normal.
- Napping during the day may make sleeping at night difficult. It is also important that your pain is well controlled at night.

Post-Operative Physical Therapy:

- Physical therapy is an essential component of the recovery process and is the most important thing you can do to optimize your outcome.
- You will begin physical therapy 4-7 days after your surgery. Physical therapy will be twice a week for a total of 6 weeks after surgery.
- Please schedule your physical therapy prior to surgery since many facilities can book up quickly for appointments. A list of recommended physical therapy clinics has been provided in this booklet for your convenience.

Frequently Asked Questions

- I need a refill of my medication. Who do I call?
  - If you need a refill of your medication at any point, you need to call 720-487-6191. You will be prompted to leave a message. In your voicemail please leave the medication name and the pharmacy you would like this sent to. Prescription refills are addressed Monday-Friday from 7 am to 3 pm. We do not refill medications on weekends or holidays- so please reach out in advance to avoid delays in getting your medications.
- I went home with oxygen; how long do I need it and how do I get rid of it?
  - Occasionally, patients are sent home from the hospital with oxygen to help improve breathing for a few days or weeks. The decision to put you on oxygen is made by the internal medicine doctors and respiratory therapists at the hospital. To stop home oxygen and to have your oxygen tank picked up by the company, contact the number given to you at the time of your hospitalization to arrange the time and place to pick up the oxygen tank.
- How long will my knee last?
  - This is a difficult question to answer as many factors determine the longevity of a knee replacement. With the new advances in materials, we are now hoping for 25-30 years.
- When can I shower or bathe?
  - You can shower the day after surgery, and let the water run over your knee. Your dressing is waterproof. Leave it in place as we will remove the dressing at the two-week visit. You should avoid soaking in a bath or pool for at least 5-6 weeks after surgery when your incision is completely healed.

FAQ

- What will my knee feel like when I am completely healed?
  - Having realistic expectations about your knee replacement will ultimately lead to your satisfaction with the surgery. The goal of knee replacement is to improve your pain and your function. Hopefully, 90% of your knee pain will resolve and you will have excellent motion in your knee. However, even a perfectly done knee replacement may have residual stiffness or discomfort. We like to say that if you would be satisfied knowing that your knee will feel at least 80-90% better than it felt prior to surgery, then you will likely be very happy with your new knee. If you get to 90-100% (which is what we are aiming for), consider that a bonus. In our experience, 1 or 2 out of 100 people would say that their knee feels bad enough (pain or stiffness) that they would not do the operation again if they had the choice. That means about 99% are satisfied!
- What is the healing process like after a knee replacement?
  - Expect to go home the same day of surgery (if prearranged) OR be in the hospital for one night. On the day of surgery, you should expect to put full weight on, as well as walk on the leg with your new knee! Initially, you may use a cane or walker to help you walk. You can eliminate these walking aids whenever you feel comfortable doing so. When you first begin to ambulate on your new knee, you may have pain. Pain generally improves dramatically in the first several days and weeks after surgery, however, the first 2 weeks are generally the most difficult. Calf and thigh soreness is especially common in the first few weeks. On average, by week 6 most patients are about 75-80% recovered (healed) from surgery. By 3 months most patients are about 90% recovered. Complete recovery, including maximal pain relief and function, takes about 1 year. Patients generally begin driving and returning to work between 1 and 6 weeks after surgery.
- I just had a knee replacement. What positions can I sleep in?
  - You may sleep in any position you are comfortable in. Try to keep your leg as straight as you can. Although you can sometimes put a pillow under your knee for comfort, constantly sleeping with a pillow under the knee may lead to the inability to straighten your knee completely. A pillow should be avoided if possible.

FAQ

- Is swelling common after knee replacement?
  - Yes. In fact, you should anticipate quite a bit of swelling from your thigh to your foot after surgery. Your operative leg may swell to as much as 30% larger than your other leg. The swelling peaks at about 7-10 days after surgery and gradually diminishes. Sometimes the leg can have substantial bruising as well. This bruising is not dangerous. Elevating your leg and wearing a support stocking helps decrease the swelling. It may take months for all the swelling to resolve. Occasionally, patients get blistering on the operative leg. This is from excessive swelling. while blisters look alarming, they generally resolve without issue. If you blister, please contact our clinic to let us know.
- Why do I have to take all these medications after my surgery?
  - Medications after surgery are prescribed to help ensure a safe and comfortable recovery. Blood thinners are necessary to help avoid developing blood clots. Pain medications help decrease your discomfort after surgery. Dr. Chrastil uses "multi-modal" pain control, which has been clinically proven to be effective after total knee replacement. Multi-modal pain control uses different types of medication, which can decrease the need for opioids. In general, patients are given an anti-inflammatory medication (Meloxicam/Celebrex) for 6 weeks, a short-acting "as needed" opioid medication (Oxycodone, Hydrocodone, or Hydromorphone), and a moderate, as needed, pain medication (Tramadol). The most common side effects of these opioid medications are nausea, constipation, and itching. As such, you may be given an anti-nausea medication (Zofran or Scopolamine patch), stool softeners (Senokot, Docusate, Senna-S), and anti-itching medication if needed (Benadryl or Atarax). If your insurance does not pay for a particular medication or if you do not wish to take a particular one, you do not need to take it. Most of these medications are on an "as-needed" basis.
- Can I kneel on my knee after surgery?
  - Yes. There is a common misconception that you cannot kneel directly on a total knee replacement after surgery, or that kneeling will damage a total knee. In reality, kneeling on a total knee is completely acceptable. However, many patients report that kneeling on their knee feels strange, uncomfortable, or even painful. Even so, kneeling is not bad for the knee. Knee pads or cushions can make kneeling more comfortable

FAQ

- Is it normal to feel or hear clicking or clunking in my knee after surgery?
  - The short answer is yes. The ligaments in a normal (non-replaced) knee allow for subtle motion of the knee in many directions. When a normal (non-replaced) knee moves it has soft cartilage and other soft tissues that cushion this movement. In a knee replacement, this normal motion still occurs, but instead of soft tissues, there are metal and plastic parts that touch each other. When this happens, you may feel (or less commonly hear) a click or clunk in the knee. This is normal and should be expected.
- Is it normal to have numbness around the incision after surgery?
  - Yes. Knee replacement requires an incision to be made in the front of your knee. In most people, this incision cuts through the superficial nerve that provides sensation to the outside part or "lateral part" of your knee. Most people will notice an area of numbness on the outside part of their knee. This area of numbness may be as big as several square inches, in some cases covering an area of as big as the palm of your hand. In some people, this area of numbness will diminish or resolve over time. In other people, the numbness will be permanent. Eventually, the numbness becomes less and less noticeable.
- What should my activity level be after surgery?
  - Every patient is different. Each day you should be increasing your activity level, but let pain and swelling be your guide. The first 2 weeks are associated with the most pain. On average, you will make 75-80% of your recovery by week 6, and 90% by 3 months. At some point, most patients overdo it with activities and therefore take a few steps back in their recovery temporarily. You may have increased swelling or discomfort if this happens. This is your body telling you to take it easy and let your knee rest for a few days.
- When can I restart the medications I was told to stop prior to surgery?
  - Usually, as soon as you are discharged from the hospital, but check with Dr. Chrastil or your primary care provider If there are any medications in question. You will be informed which medications you should resume when you leave the hospital.

FAQ

- **I am having difficulty sleeping after my knee replacement. Is this normal? What can I do about it?**
  - Patients often experience difficulty falling or staying asleep in the first few weeks to months after knee replacement. Some even describe restless leg-like symptoms. Sleep may be disrupted for many reasons. This is likely related to changes in your daily routine, medications you are taking, and change to your body's metabolism during the healing process. Your sleeping patterns will eventually normalize. To improve sleep at night, remain active during the day and avoid excessive napping. Sleep medications are sometimes useful short term, and you could start with over-the-counter sleep aides such as Tylenol PM, Advil PM, Melatonin, Valerian root, etc.
- **Why am I so tired all the time?**
  - It is normal to experience fatigue after knee replacement. This is due to a combination of the effects of pain medication, disrupted sleep patterns, and the physiologic toll that the surgery takes on your body while you are healing. You will regain your energy and stamina. In some cases, it may take up to 3 months to get past the fatigue.
- **What should I do to avoid or alleviate constipation?**
  - You should start taking your stool softener (Senna-S) two days before surgery and continue it twice daily until you have a normal bowel movement or while taking narcotic pain medication. Stop the stool softener if you start to experience loose or watery stools. If you continue to have constipation you can take Milk of Magnesia, which is a mild oral laxative, or use Magnesium Citrate, which is much stronger. In addition, you can also try Dulcolax suppositories or a Fleets enema. All of these medications can be bought over the counter at your pharmacy.

FAQ

- What are the major risks of knee replacement surgery?
  - **Infection:** Infection is the biggest risk after knee replacement and can occur anywhere from days to years after surgery. An infected total knee replacement requires surgery (sometimes multiple surgeries), and great measures are taken to help avoid infection. The national infection rate after knee replacement is about 1 in 100 (1%).
  - **Blood clots:** A blood clot, also known as deep vein thrombosis (DVT), may occur after surgery and can be potentially life-threatening if it travels to your lungs. The risk of death from blood clots has been greatly reduced in recent years by the use of anticoagulants (blood thinners) and early mobilization (walking, moving, etc.). The symptoms of DVT are new or extreme swelling or a sudden increase in pain in the leg or calf. (Note that substantial swelling is normal and expected, as is some moderate calf and thigh pain. Most instances of swelling and pain are ***normal***).
    - If you or your physical therapists are concerned with the amount of swelling in your leg, call our medical assistant, Kate (see page 3).
    - Chest pain or shortness of breath are possible signs of DVT that have moved to the lungs (called a pulmonary embolus or "PE"). If you experience chest pain or shortness of breath, go to the ER immediately.
  - **Continued pain or stiffness:** As noted above, in rare cases people will continue to have significant pain after a total knee replacement. Often the cause of this pain can be determined, but rarely it may be difficult to tell why a knee still hurts. Fortunately, this is uncommon. Some people's knees may become stiff after surgery. It is important to diligently perform your physical therapy exercises after surgery in order to prevent stiffness.
  - **Need for more operations:** Most knee replacements last many years. Early reoperation may be required in rare cases.
  - **Nerve or blood vessel injury:** Major nerve or blood vessel injury is exceedingly uncommon after knee replacement surgery.

Chlorhexidine Gluconate (CHG)

Skin bacteria are the most common cause of postoperative surgical wound infections. These wipes or soap will clean your skin before surgery and help prevent infection at the surgical site. This contains an anti-septic called Chlorhexidine Gluconate (CHG). CHG kills bacteria on the skin that could cause wound infection.

Directions for CHG:

- You will need to pick up over-the-counter wipes ***OR*** soap at any pharmacy and you will use this once a day, every day for 5 days before surgery.
- Do not shave any areas of the body at least 5 days prior to surgery except the face, if desired.
- Avoid contact with eyes, ears, mouth, genital and rectal areas, and colostomy if you have one.
- Closed packages containing wipes may be warmed by soaking them in warm water. Do not microwave wipes.
- Use wipes on cool and dry skin OR soap as directed on the bottle.
- Dress in freshly laundered nightwear. Sleep on freshly laundered sheets **the night before surgery (does not need to be every night of using soap)**.
- Throw used wipes in garbage. DO NOT flush in the toilet.

Preparing the skin the evening before surgery:

- Shower or bathe and shampoo your hair as usual the evening before surgery. Use CHG soap in the shower OR wait one hour after your shower before using the wipes.





Chlorhexidine Gluconate (CHG)

- If using wipes, use one cloth to wipe each area of the body for 20 seconds in the following order:
  - Start with your operative knee. Be sure to thoroughly wipe behind your knee as well.
  - Wipe your neck, chest, and abdomen- not the face.
  - Wipe both arms, front and back, starting with the shoulder and ending at the fingertips. Be sure to thoroughly wipe the armpit areas.
  - Wipe your right and left hip followed by your groin. Be sure to wipe folds in the groin area.
  - Wipe the remainder of both legs, starting at the thigh and ending at the toes.
  - Wipe your outer buttocks- not the rectal area.
  - Once you use the wipes do not shower, bathe, or apply lotions, moisturizers, or makeup.
  - Do not rinse your skin.

The Morning of Surgery:

- Repeat the same skin cleansing process as outlined above.
- Wear freshly laundered, clean clothes to the hospital.

Please note you do NOT need a prescription to obtain this soap. This can be bought over the counter at most pharmacies, or ordered online to be delivered to your home.

CHG Pre-Operative Skin Preparation: Frequently Asked Questions

Q: Why does my skin feel itchy or tack after using the CHG soap/wipes? Is that a reaction?

- You may experience a very mild itching sensation as the CHG dries on the skin. Avoid rubbing the skin too vigorously to minimize the itching. There will be a tacky feeling for a little while afterward as well. This is normal. However, if a rash or skin irritation develops, do not do the second skin cleansing and notify the staff in the pre-operative area on the day of surgery.

Q: Why does the skin need to cool off before applying the CHG?

- It is okay to apply the CHG if your skin temperature is normal or cooler. When the skin is warm the pores are open, and you are more likely to develop skin irritation.

Q: What if I already have a rash, burn, cut, open wound, or other irritation of the skin? Should I still use it?

- No, do not use it if the skin is not intact.

Q: Why do we need to apply it so many times and over most of the body?

- The protocol we are using to prepare your skin takes advantage of a "stacked effect" of repeated usage. Each preparation lasts for at least 6 hours before bacteria start to grow back. Each subsequent preparation decreases your whole body's skin bacterial levels prior to surgery, which then decreases your chances of developing a post-operative infection.

Cold Therapy Unit

Dr. Chrastil highly recommends a cold therapy unit.

- An optional alternate icing method to reduce pain and swelling post-surgery or post-injury.
- You can use plastic frozen bottles inside the unit rather than constantly making or buying ice.
- More convenient than ice or gel packs.
- Uses a power cord for motorized icing.
- Not billable to insurance, self pay only. HSA eligible.

Breg Polar Care Cube

Motorized Cold Therapy
$175 + tax



- Available in Golden, Highlands Ranch, Westminster.
- Universal/multi-use pad included.
- Each additional pad $40.

Breg Polar Care Wave

Motorized Cold Therapy w/Compression
$325 + tax



- Available in Golden retail store.
- · Body part specific pad included.
- · Each Additional specific pad $70.

Golden
660 Golden Ridge Rd., Suite 250
Golden, CO 80401

Highlands Ranch
640 Plaza Drive, Suite 300
Highlands Ranch, CO 80129

Westminster
14190 Orchard Pkwy., Suite 200
Westminster, CO 80023