

Everything you need to know for
before and after your knee surgery.

UUOC POST-OP

PATIENT INFORMATION



UNIVERSITY OF UTAH
HEALTH CARE

SPORTS MEDICINE

OVERVIEW

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INTRODUCTION

The information provided to you is most beneficial when read **before surgery**. It is designed to help gain a full understanding of what your knee surgery entails from start to finish and should help to guide the recovery process. Your understanding, participation and commitment are vital to the overall success of your surgery. Please keep all information in this handbook.

We want to ensure that our patients have the information, care and support that they need every step of the way. The goal is to return patients to an acceptable quality of life whether that means reading a book, playing sports or just spending time with loved ones. Pain-free life is essential to healthy living and our orthopaedic sports medicine surgeons reliably help patient's revitalize their quality of life through research and surgical advances.

We understand that there are many choices in health care today and we thank you for choosing the University of Utah Orthopaedic Center for your orthopaedic and sports medicine needs.

YOUR CARE TEAM



Dr. Travis Maak

Attending: A doctor in a teaching hospital. This is your primary doctor/surgeon and they oversee fellows, residents and the rest of the staff involved in your care.

Fellow: A medical doctor who has completed specialty training in Orthopaedics (residency). A fellow is a part of a year long program focusing on sports medicine. The fellow may function as an attending. Fellows see patients in clinic then present the patient to the attending before making decisions regarding care. Fellows assist the attending in surgery and visit patients while in recovery.

Resident: A medical doctor completing specialty training in Orthopaedics. Our residents are a part of a five-year residency program. The resident may not function as an attending. Residents see patients in clinic then present the patient to the attending before making decisions regarding care. Residents assist the attending in surgery and visit patients while in recovery.

Athletic Trainer (ATC): A health care professional with licensing and credentials, allowing them to practice under the supervision of a physician. Athletic trainers see patients in clinic then present the patient to the attending before making decisions regarding care. ATC's also help with rehabilitation post operatively.

Medical Assistant (MA): A health care professional who is a trained associate of our team. Medical assistants will assist in rooming patients to include taking histories, vitals, drawing blood work among many other tasks. They do not assist the attending in surgery.

Clinical coordinator/surgery scheduler: A health care professional with licensing to help manage clinic and schedule surgical procedures.

CONTACT PHONE LIST

All emergencies: 9-1-1

ANESTHESIA: Pre-operative nurses who can take a message for anesthesiologist – (801)587-5343.

AFTER HOURS: Tell the hospital operators your surgeon's name; they will contact the resident/fellow on call for you – (801)581-2121

APPOINTMENT SCHEDULING: (801)587-7109

QUESTIONS DURING CLINIC HOURS/SURGERY SCHEDULING:

- **Dr. Maak - Frankie:** (801)587-7187

ATHLETIC TRAINER: For any questions about procedures, rehab protocols, recovery, etc.

- **Dr. Maak - Mark:** (801)587-1473

MEDICAL ASSISTANTS:

- **Dr. Maak - Kattie:** (801)587-7040

FAX NUMBERS:

- **Maak team fax (801) 587-7115**

UofU ORTHOPAEDIC CENTER PHYSICAL THERAPY: For PRE-hab visits and post-operative rehab (once permitted by your surgeon) – (801)587-7005

TOLL FREE: Can transfer to any of the numbers above. 1-800-824-2073

BEFORE SURGERY

Knowing what to expect about surgery can provide comfort to both you and your family. Please use the following information as a guideline. You should be emotionally and physically prepared for surgery and the recovery process. Schedule surgery at a time that suites both you and your family/care provider's needs. There is no rush to have surgery before you're ready as the condition of your knee prior to surgery can be critical to your recovery. Returning your knee to as close to a 'normal' state as possible prior to surgery will benefit your recovery process.

PRIOR TO SURGERY

- Our surgical coordinator will notify your insurance organization of your upcoming surgery. We will make every effort to pre-authorize your surgery and provide any requested information. **All scheduled surgery dates are subject to change pending insurance authorization.**
- Please call the **surgical coordinator** (Frankie 801-587-7187) if you have questions about surgery authorization or need to change your surgery date.
- It is **your responsibility** to communicate with your insurance provider to determine what charges you may be responsible for. We are not authorized to inform you of your co-pay or other financial responsibilities.
- A **University of Utah financial advocate** can tell you an estimated cost for the surgery based on the current procedural terminology. They may be contacted at **(801)587-5374**.

Your CPT procedure code: _____

Your ICD-9 diagnosis code: _____

PLANNING FOR YOUR CARE

Preparing YOURSELF

- Arrange for a **responsible adult (over age 18)** to drive you home from surgery. You **WILL NOT** be allowed to drive or to take a taxi/bus home or to your hotel. **Surgery is subject to cancellation** if you do not provide a responsible ride home from surgery.
- **DO NOT** use tobacco or any other drugs at least **24 hours** prior to surgery. Nicotine decreases the blood supply to your surgical site and slows down the entire healing process. Realize that continuation of smoking may lead to less than desirable results.
- **DO NOT eat or drink anything after MIDNIGHT the day before your surgery.** NO food, chewing tobacco, candy, gum or breath mints.
- It **IS OKAY** to brush your teeth the morning of surgery provided nothing is swallowed.
- **If arrival time is later (11am-2pm),** you may have **ONLY clear liquids** such as water, Gatorade, soft drinks, broth or jell-o **ONLY UP TO 4 HOURS before arrival.** NO milk, dairy, or pulp juices (orange, grape, etc.).
- Drink a lot of water, non-alcoholic and non-caffeinated beverages 1-3 days prior to surgery. You will feel better following surgery, and it will also help with your IV start if you are well hydrated. This is particularly true if you have just arrived at higher altitude.
- **Eat right** – if you are overweight, it could be beneficial to attempt weight loss prior to surgery. If you are underweight, consider dietary supplements to ensure you have the nutritional status to heal appropriately.
- **Makeup and nail polish** must be **removed** prior to surgery.

Preparing your HOME

- Arrange for a responsible adult to stay with you for **at least 24 hours** following surgery to provide assistance. You may need help at home most of the first week after surgery.
- If you will not have help available, or if you live alone, you may have the option to plan a brief stay in a care facility or rehabilitation center until it is safe for you to return home.
- Have firm pillows available for your recliner, couch, and bed. Consider sleeping with your heel raised at an inclined position above the level of the heart for at least 1-2 weeks following surgery. This is sometimes the most comfortable position and helps to facilitate decreased swelling in the lower extremity. Please do not put a pillow under your knee and keep it in a bend position.
- Remove throw rugs and/or cords to clear pathways to avoid falling.
- Create an emergency plan with a trusted neighbor if you will be alone after surgery.
- Stock up on groceries for 1-2 weeks (frozen or simple meals and snacks work best), movies, books, etc. to keep yourself entertained.
- Arrange for child/pet care ahead of time if necessary.

MEDICATIONS/ALLERGIES

- **Decrease your use of narcotic pain medications** as much as possible so that we can use effective medications to control your pain after surgery. **If your body has built tolerance to pain medication, your post-op pain may be more difficult to control.**
- **Do not take** anti-inflammatory medications (e.g. Ibuprofen, Motrin, Advil, Aleve, etc.) for 1-2 weeks prior to your procedure, unless otherwise directed by your physician.
- **Inform your surgeon's team of all allergies** prior to surgery (latex, soap, tape, or food, etc).
- **If scheduled to stay overnight,** bring all of your medications in the **original prescription bottles.**

PATIENT CHECK-LIST

The Day Before Surgery

- Once surgery is scheduled, **call (801)587-5373 the day before surgery between 2-5 PM; they will inform you of what time to arrive for check-in on the day of surgery.** Do not be late, as your surgery could be delayed or cancelled.
- Check-in times are usually 1.5-2 hours before scheduled surgery time. If outpatient surgery, you will usually be able to return home about 1-2 hours after general anesthesia.
- Please **shower or bathe prior to coming in for surgery.** It may be 3-5 days following surgery before you will be able to shower. Be cautious with shaving around the surgical site prior to surgery in the event that you may cut yourself and become infected.
- Notify your surgeon's office** if you feel ill within 24 hours prior to surgery.
- Prepare to have a family member/responsible adult available to speak with the surgeon **IMMEDIATELY** after surgery.

Things to Bring to the Orthopaedic Center

- Bring all equipment and paperwork** your surgeon/surgeon's office may have given you prior to surgery. This includes **crutches, brace/knee immobilizer, etc.**
- Prepare to bring:** driver's license, insurance cards, co-pay/deductible payment, medication list, method of payment for surgery and prescriptions, advance directive (living will), etc. *Advance directive is not required, but we strongly recommend completing one BEFORE surgery if you have any concern about this.*
- Bring a **list of all medications** you're taking, including herbal and over the counter.
- If you have asthma, bring your inhaler(s). If you have sleep apnea, bring CPAP.
- If you needed medical clearance from your cardiologist or family physician prior to surgery, **bring all lab work, EKG's, and any medical documentation with you.**
- Dress comfortably** the day of surgery. Wear loose fitting clothing, i.e. baggy or button up pants. You will awake with a bulky dressing and knee immobilizer in place after surgery.
- Skid-proof slippers/tennis shoes to wear home.

Things to Leave at Home

- Large amounts of money and all other valuables.
- Jewelry is not allowed**, including all body piercings and wedding rings; leave it at home.
- Contact lenses are not allowed**, wear your glasses or bring your contact lens case.
- Personal electric equipment** (i.e. razor, blow dryer, etc.)

OPTIMIZE YOUR HEALTH

- Being in the best possible health decreases risk of complications both during and after surgery.
- Aerobic conditioning and a healthy lifestyle is very important. This involves eating the right amount of the right foods at the right time. Diet should contain vegetables, fruits, whole grains, lean protein and calcium rich foods like dairy.
- Avoid skipping meals, eat a balanced diet, and avoid fast foods.
- Consider taking a daily multi-vitamin.
- Quit smoking.
- Speak with physical therapist or our office to determine appropriate forms and amount of exercise after surgery, initially your exercise will need to be modified after surgery.
- Visit <http://www.choosemyplate.gov/> for healthier lifestyle information.

PRE-OPERATIVE LAB WORK AND ASSESSMENT

- If you are having surgery at the MAIN HOSPITAL and not at the University of Utah Orthopaedic Center pre-op nurses will need to collect medical history information from you prior to surgery.
- You will be scheduled for an appointment at the Surgical Pre-Admission Clinic (SPA). Be on time to your appointment but also bring something to keep yourself occupied. Your appointment could take up to 3 hours.

- Take a copy of any medical clearances we asked you to obtain, especially an echocardiogram report if applicable, so our anesthesiologists can clear you for surgery.
- Take your medication bottles along with a medication list with you so the nurses get accurate names, dosage and times you take your medications.
- Your visit will likely include evaluation of your vital signs, heart and weight, an EKG of your heart, possibly a chest x-ray, blood work and detailed history and physical exam. You may meet with a member of our anesthesia team as well.

SURGERY

DAY OF SURGERY

- **Check-in:** Upon arrival at the University of Utah Orthopaedic Surgery Center, check in at the front desk on the bottom floor. They will place an ID bracelet on you, check your name for correct spelling, and verify your birth date. You will also review information regarding your surgery. Be sure to read all information prior to signing it.
- **Pre-op:** You will be called back to the pre-op area to change from your clothes into a hospital gown. One visitor is allowed to come back with you to the pre-op area. A registered nurse will perform an assessment and you will be prepared for surgery. This may include vital signs, starting an IV, skin prep, and marking of the operative site. Staff will ask you to tell them your full name, birth date, the surgery to be performed, and the site of operation. Don't be alarmed if you are asked this numerous times. This is just a safety measure to make sure everything is correct.
- You will have an opportunity to talk with the anesthesiologist about your medical history, general health and the method of anesthesia that will be used. They will discuss your options for anesthesia and any risks that may be involved. Please be sure to inform them of any medical problems you have and all of the medications that you take. This doctor may also discuss with you the option of a nerve block or numbing of the leg. This may help relieve initial post-operative pain.
- The surgeon will speak with you in the pre-op area. They will discuss the surgical plan and answer any questions you have. They will ask you what site they are going to operate on then confirm and mark the operative site with a permanent marker.
- **Time Out:** Just before the operating room nurses take you back to the OR, there is a time out performed in the pre-op area. During the time out, two nurses do a safety check to ensure that you are the correct patient and the correct doctor is doing the correct procedure on the correct body part.
- **Don't be afraid to ask questions.** We want you to be as comfortable as possible and get all questions/concerns addressed prior to surgery. By becoming involved and informed in making decisions about your care, you play a vital role in your safety.
- Be aware of staff members washing their hands or using the hand sanitizer. If you don't see them using either of these methods, don't be afraid to ask them if they have cleaned their hands.
- After talking with the medical staff, you will go to the operating room. Surgery typically lasts 1 ½ to 2 ½ hours, but can last as long as 5 hours. Some of this time is spent waiting for staff to prepare the operating room.

AFTER SURGERY

- Once surgery is complete you will be taken to the post anesthesia care unit (PACU)/Same Day Surgery unit/recovery room and your family/designated care giver will be contacted. Typically, family members/care givers can speak to the surgeon in the waiting room **immediately** following the operation.
- 1-2 visitors are allowed in the recovery room; visitation time is up to the nurse's discretion.
- Nurses will be observing you closely, monitoring your vital signs, breathing, and heart functions. They will also be managing your pain/discomfort, and any nausea/vomiting you may experience.
- Some side effects of anesthesia include: drowsiness, nausea, muscle aches, sore throat, occasional dizziness or headaches. These symptoms usually lessen within a few hours following surgery but sometimes can last about 2-5 days. The majority of patient's do not feel up to doing their routine

activities the next day, usually due to general fatigue or surgical discomfort. Plan to take it easy for a few days.

- Once you become more awake in the recovery room, you will be offered ice chips and progress to crackers and liquids, then regular food as tolerated.
- The amount of discomfort you experience will depend on a number of factors, especially the type of surgery that you have. Your discomfort should be tolerable, but **do not expect to be pain free**. You will be asked to rate your pain on a scale of 0-10. This helps the nurse measure your pain. 0 represents no pain, and 10 represents excruciating pain. Pain medications can be given through your IV or as a pill. Staying on top of your pain is vital in the postoperative stage. We never want your pain level to reach a 10. Consider 3-4 or less tolerable. When your pain starts increasing beyond the point of 3, please request pain medication.
- If any equipment is ordered to be used at home, you will be instructed on its proper use prior to discharge.
- Prescriptions will be given and can be filled at your pharmacy of choice or at the UUOC pharmacy.
- Prior to discharge, a team of doctors will be working to make sure that your pain is well controlled and that you are ready to return home safely. When you meet the criteria to be discharged, your recovery nurse will review your discharge instructions with both you and the responsible person who is driving you home. They will also answer any questions you have prior to discharge.
- Rehab for HTO or DFO typically begins within 1-2 days following surgery in the form of home exercises and as soon as the nerve block has worn off. Normal or near-normal sensation must have returned to the operative lower extremity prior to starting. You will also be instructed in simple exercises to help avoid post-op stiffness. Formal physical therapy will typically begin at the 2 week mark post-surgery.

LEAVING THE SURGERY CENTER:

- As you leave the surgery center, you will be in a knee immobilizer and you will have crutches also. Plan to use both crutches and wear the knee immobilizer while up and around for the first 10-14 days after surgery. You will be given specific post-operative instructions regarding weight bearing, range of motion and other restrictions based on your individual procedure after your surgery.

RETURNING HOME AFTER SURGERY

- Your pain after surgery will vary depending on the method of anesthesia used and from patient to patient. In the first 24 hours, pain medication should be taken regularly with small amounts of food. During this time, nausea and light-headedness are common and should improve in 2-5 days. Drinking fluids may help. If nausea persists, call your doctor's team or the after-hours number listed to discuss management options.

RECOVERY

PREVENTING POSSIBLE COMPLICATIONS OF SURGERY

The complication rate after realignment surgery is low, however all surgical patients are at risk of complications, though they are rare.

INFECTION – An infection can occur in the wound or around the incision sites, however this risk is very small, less than 1%. Pre-operative antibiotics are typically given to aid in prevention of possible infection however good hygiene is extremely beneficial prior to and after surgery. Check incisions for signs of increasing redness, tenderness, swelling or warmth around the wound, increased sensitivity to touch, fevers $>101^{\circ}$, shaking chills or night sweats, excessive drainage from wound. Let a member of your care team know immediately if you experience any of these signs or symptoms.

BLOOD CLOTS – Also called deep vein thrombosis (DVT), they can result from multiple factors after surgery. A primary cause of DVT is decreased mobility. Various measures that can be used to reduce the possibility of blood clots include special anti-embolism stockings (TED hose), blood-thinning medications, inflatable coverings,

ankle pumps and other exercises, and routine walking. Please let a member of the care team know immediately if you experience large amounts of swelling in an extremity, cramps in your calf or lower leg, sharp/sudden chest pain, difficulty breathing, shortness of breath – all of which are some signs and symptoms of a DVT or PE.

NUMBNESS – A feeling of numbness may occur just below the knee joint because the nerves of the skin were cut so that your surgeon could access the appropriate structures. This feeling is normal and typically resolves within a few months. There may be some numbness that does not resolve but should not interfere with quality of life.

FOR THE FIRST WEEK

- When lying in bed, elevate your knee higher than the level of your heart. Sleeping and resting will be more comfortable if you keep your knee propped up with support under the ankle rather than the knee. This will also help facilitate knee extension. Sleeping can remain uncomfortable or more difficult even after the first week post-op. This is not uncommon after a knee surgery.
- Ice your knee to help manage the pain. You may use a cold compression unit such as the Game-Ready or ice packs/bags. You should ice 20-30 minutes every hour, as needed, on low to no compression setting.
- Wear the knee immobilizer and use both crutches, especially until the nerve block is worn off.
- When walking, you may touch your foot to the ground for balance after you have near full sensation.
- Sleep with your knee immobilizer on to help maintain knee extension.

CARE OF YOUR INCISIONS

- Stitches are dissolvable and do not need to be removed.
- Mild to moderate bleeding may occur at the incision sites initially post-operative however this should decrease quickly over time.
- Leave the surgical dressings in place for 3-5 days. The bulky dressings may be removed and replaced with water-proof bandages or Op-Sites at that time. Be sure to leave on the small tape strips covering the incision sites if there are any.
- Inspect the wounds at time of dressing change for signs of infection which include but are not limited to redness, severe tenderness, excessive swelling, and pus drainage. If you notice any of these signs around the incision sites **please notify a member of your care team immediately.**
- It is common to experience a mild fever during the first few days after surgery along with nausea and dizziness from anesthesia or narcotic pain medications however fevers, increasing pain and swelling at the incisions should be **reported immediately.**
- **If you get a low grade post-op fever, less than 101 degrees, please perform a lot of deep breathing and go for walks to keep moving.**

SHOWERING

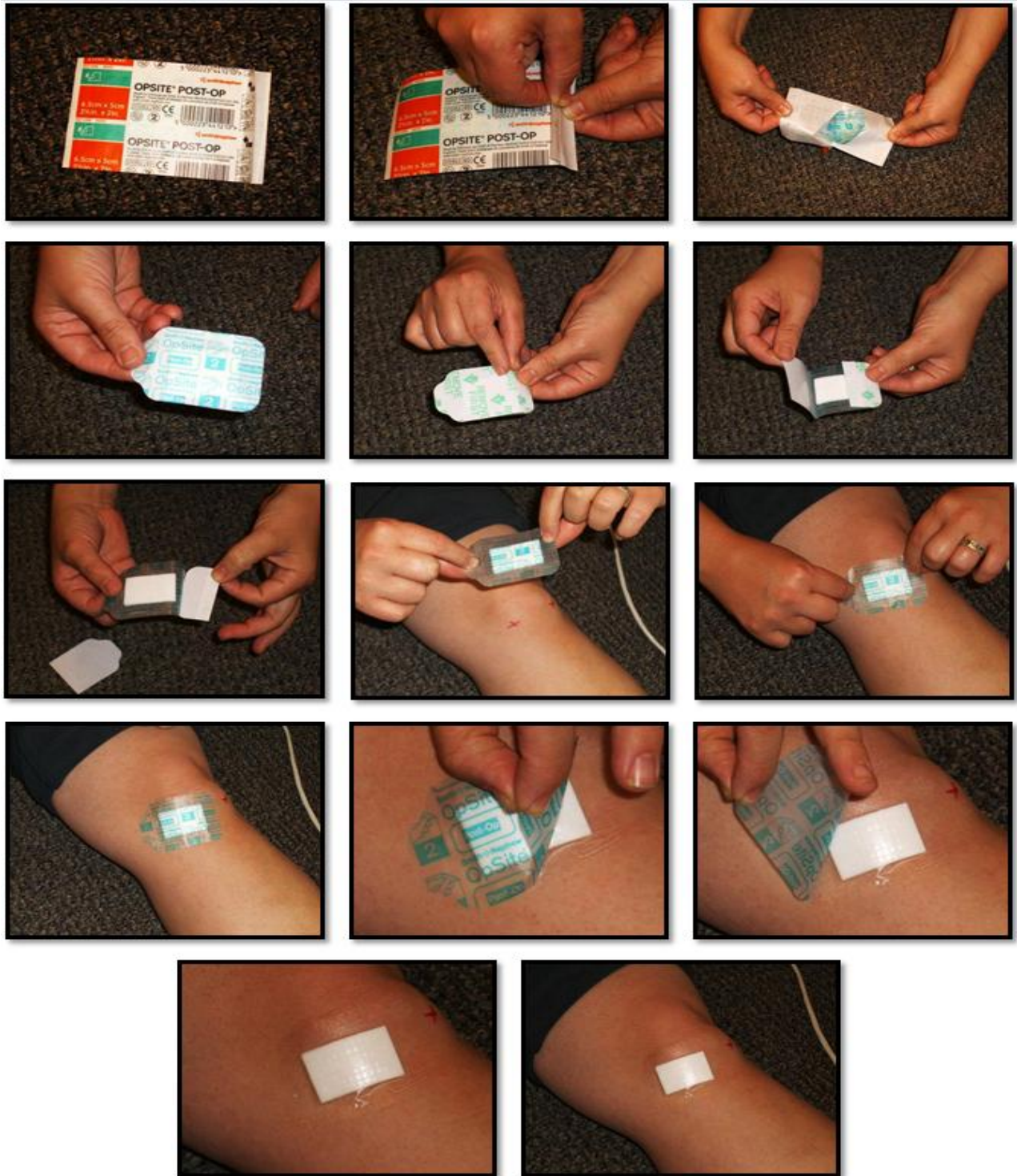
- Wrap your knee with water-proof bandages, Op-sites, or saran wrap for showering.
- You must keep your incision sites completely clean, dry, and free of any ointments or lotions until 10 days post-operatively.
- After 10 days, you will be able to let water roll over your incision sites however you will still not be allowed to scrub the incision sites or soak in a hot tub, creek, lake, river or ocean for another 1-2 weeks until the incision sites are COMPLETELY healed.
- You may place a chair in your shower or take sponge baths to minimize pain or if you are uncomfortable standing in the shower after surgery.

OP-SITE INSTRUCTIONS

- 3-5 days after surgery you will remove your big, bulky bandage with the gauze. We would like for you to keep your incisions clean and dry and these Op-Site Bandages are water-proof bandages that you can use to cover up your incisions for the first week.

- Follow the directions on the bandage of which tab to remove first, you will then place the bandage, gauze side down, and then remove the #2 tab.
- Please call Katie or Frankie with any questions regarding your bandages and use of the Op-Sites Bandages.

OP-SITE PHOTOS



DIET:

- Just as your aerobic conditioning is important after surgery, so is your diet. In general, we recommend that you make sure to avoid skipping meals, especially while taking prescription or narcotic pain medications.
- Eat a well-balanced diet including regular portions of fruits or vegetables.
- Avoid relying on fast food while recovering from surgery.
- Consider taking a daily multi-vitamin.

CONDITIONING:

- It is important to participate in some form of aerobic activity after knee surgery. If you do not already participate in some form of regular aerobic exercise, speak with your physical therapist or physician on how to begin a program after surgery.
- If you already exercise regularly, you will probably need to modify your exercise to allow your knee to heal.
- It is important to consult your physician or physical therapist if you have questions regarding physical therapy and home exercises for after surgery.

POST OPERATIVE PAIN MANAGEMENT:

ANESTHESIA

- You will meet with an anesthesiologist on the day of surgery to discuss your anesthesia. You will likely receive general anesthesia and possibly a nerve block. The nerve block is usually taken out two days following surgery. The anesthesiologist will give you instructions on how to remove it. If you return home and have questions regarding your nerve block, please call Pre-Op at (801)587-5373.

MEDICATIONS

- You will be given a prescription for post-op pain medications.
- Take them with food.
- Take them only as directed on the label.
- Certain pain medications may contain Tylenol. DO NOT take any additional Tylenol while on these pain medications.
- DO NOT mix pain medications with alcohol.
- DO NOT drive while taking pain medications, as they increase your liability and delay your response time.
- If you have any questions or concerns regarding your pain medications, please call the office at (801)587-7040 or (801)587-7187.

Life after a knee surgery:

Typically the recovery process takes 6-9 months, and most patients continue to gain improvement up to 1 year or more after surgery. Follow your physician's orders for appropriate activity level after surgery.

In general, activities should be pain-free including post-activity soreness.

Caution with jerking or forceful movements of the knee and placing the joint in extremes of range of motion.

POST-OPERATIVE EXERCISES

Important precautions after knee surgery:

Do not lift anything heavier than 5 pounds with your operative side for the first 4-6 weeks after surgery.

Do not use your surgical leg to push yourself up in bed or from a chair because this requires forceful contraction of the muscles and may cause pain.

Do not overuse your knee – this may result in increased pain and decreased range of motion.

Do not place your surgical leg in any extreme position for the first 4-6 weeks after surgery.

Do not drive a car until you can safely work the pedals and are no longer taking narcotics.

Ankle pumps-. Pump your ankle up and down. Do this for 3-5 minutes each time that you do it.

Supine Hangs – Rest your heel of the arm of a couch or under 2 rolled up towels. Do not place anything under your knee to support it. This will be uncomfortable but getting your knee straight is the most important aspect of rehab in the first 6 weeks.

Quad Sets- Sit back on your elbows. Attempt to straighten your knee by flexing the front of your thigh. Hold for 3 seconds. Do this 30 times for each set of exercises that you do. Relax your thigh completely before performing your next squeeze.

Straight Leg Raises – Keeping your knee as straight as you can, lift your leg off the ground about 18 inches, then lower it slowly.

Heel Slides – On the hardwood floor or tile floor, keep a sock on your foot and your heel on the ground. Slide your heel towards your butt as far as pain will allow. Straighten your knee back out and try to lock out your knee. Do this by performing a quad set.

Stationary Bike – If you did not have a meniscal REPAIR, you may begin riding the stationary bike as soon as you feel comfortable. Initially, you may only be able to rock back and forth, that's okay. Keep the resistance at 0 and listen to your body. The bike is one of the safest things you can do for your knee after surgery.

FOLLOW-UP VISITS

- **SURGEON:** Plan on seeing your surgeon at 2 weeks post-op, 6 weeks, 3 months, 6 months and 1 year after your alignment surgery. If your knee does not progress as planned, you are welcome to schedule additional visits. There is usually no charge for surgery related visits 90 days following surgery. You may receive a bill for any x-rays or special equipment such as a brace.
- **PHYSICAL THERAPY:** Schedule your first visit with a physical therapist 2 weeks after surgery. After that point, you may continue to attend formal PT 1-3 times weekly, pending your progress, for the first few months. Then as you get stronger, you are able to do more on your own at home or at a gym and start attending PT once weekly, then once every other week, then once every 2 weeks then monthly.

KNEE SURGERY: Bone Alignment Procedures (High Tibial Osteotomy and Distal Femoral Osteotomy)

PHOTO OVERVIEW

What are bone alignment procedures? For young people where knee replacement is not a good option due to age, these procedures can be considered. When people have cartilage damage or "wear and tear" to a specific area of the knee, these surgical procedures can shift weight away from that area and put more weight on an area of the knee that is free from injury. Essentially, this is a procedure to delay a knee replacement.

What causes this injury? The most common way to injure your cartilage is a traumatic blow to the knee, previous surgery/surgeries, or twisting injury with the foot planted. Other ways cartilage is injured are alignment of your knee (genetic), wear and tear over time and dislocation.

What does a cartilage injury feel like? This is different for all people but the most common description is an ache that gets worse with activity. Some people have sharp pains with certain movements. Crunching, popping and grinding with or without pain are often complaints of patients as well.

How is it diagnosed? Through a physical exam and various imaging studies.

How is it treated? Both surgically and non-surgically. Some people, depending on their activities, amount of damage and age, do not need bone alignment procedure. However, most young, active people will need some type of surgical intervention. Again, this is a surgery to delay a knee replacement, not so you can return to high level sporting activities.

GUIDELINES TO PROTECT

Failure to recognize patient variability, stiffness and redevelopment of joint laxity

Physical Therapy/HEP: Bone alignment procedures – begin as soon as nerve block if elected has worn off or within 1-2 days if a nerve block was not elected or given. Goals: regain joint ROM, decrease post-op pain to avoid effect on ROM and quad contraction, reduce swelling, and avoid stiffness. Formal therapy can begin at 2 weeks Post-Op in most cases.

Weight-bearing – Bone alignment procedures – In most cases, you will weight bearing using a brace a crutches for the first 6-8 weeks. During this time, you will only be putting your toe on the ground. This is to allow the bone to heal.

Range of motion – This is done passively (meaning you don't move your knee on your own) with a CPM machine, therapist or stationary bike. CPM stands for Continuous Passive Motion and it is a machine you will be sent home with to use for approximately 2 weeks post-operatively. Moving your knee will be sore at first but joints like to move and will feel better the more it moves.

Crutches (stairs) – Up with the good, down with the bad is the phrase we use. Use your good leg to go upstairs and take them one at a time. To go down, place your crutches on the step below you and then bring your good leg down to support yourself. Again, take it slow and take stairs one at a time.

Brace – The brace is for comfort and protection. After this type of surgery, you will be locked straight in the brace for the first 6-8 weeks when you are up walking. When doing therapy, you will remove the brace and as you sit down, your doctor may allow you to unlock the brace and bend your knee, based on your specific procedure. As time goes on, you will be able to unlock the brace and move normally again when walking.

Nerve block – This is optional after surgery but can be helpful in controlling pain. This surgery does tend to be one of the more painful procedures we perform. There is a constant dose of numbing medication for the first 48 hours after surgery. The anesthesiologist will discuss this with you at the time of surgery.

CPM – Stands for Continuous Passive Motion. It will bend your knee for you after surgery and is typically used for 2 weeks post-operatively. Bending your knee will be sore at first, but the more you move it the better your knee will feel. Joints like to move!

Ice – Ice is very good at helping control your pain. It will not speed up the healing process but can make your knee feel better. A good rule of thumb is 20 minutes every hour.

FREQUENTLY ASKED QUESTIONS

Q. Should I get a knee MRI?

A. An MRI is indicated when there is a doubt about the diagnosis or to confirm the suspicion of a cartilage injury due to misalignment. When the mechanism of injury, x-rays and physical exam clearly indicate an injury, an MRI may not be necessary. If the physical exam is not conclusive or if there is concern for additional structures that may be injured, an MRI may be ordered.

Q. What if the skin around my knee feels numb?

A. Numbness can be a minor complication from surgery. Most people will get a small patch of numbness but this does not affect your outcome. Risks and complications can occur with any surgery. Feel free to discuss potential risks or complications with your surgeon. Risks/complications include but are not limited to: infection, loss of motion, graft loosening or even failure of a graft.

Q. When can I drive?

A. Four important factors determine when you can drive.

1. If you must use your surgical leg, do you have the strength and control to drive? It will likely be at least 4 weeks before you can drive, especially if you drive with your surgical leg.
2. Do you feel you can safely maneuver a vehicle? Keep in mind it is easier to drive a car with an automatic transmission than one with a standard transmission and you must feel that operating a vehicle does not jeopardize the safety of yourself or others.
3. You must not be taking any narcotic medications.
4. You must not have any weight bearing restrictions.

Q. When can I go back to work?

A. Desk job: 1-2 weeks.

Job that requires lifting, carrying, or significant walking: Depending on the procedure, it could be as little as 2 weeks or as long as 3 months.

Jobs that require climbing ladders or maneuvering on uneven surfaces: Usually 12 weeks.

Job that requires running and cutting at high speeds: Usually 3-5 months.

Job that requires skiing: Usually 5-7 months.