

Total Joint Surgery

Overview of Total Knee Replacement





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QUICK INFO



Questions? Reach Us At:
509-436-4060



Hours for the
Department:
8 a.m. - 4:30 p.m.
(M-F)



Welcome

Thank you for choosing Confluence Health for your total joint surgery.

We are committed to making your healthcare journey successful by providing you with helpful information about what to expect during each phase of your surgery and recovery. In the enclosed handbook, you will find an abundance of insights, descriptions and checklists covering the following topics:

Care Team Overview

Learn about the different types of healthcare professionals who will participate in your procedure and support you during your recovery.

Conditions and Surgeries

Receive insights about the function of your joints, the conditions that cause pain, and the ways in which surgeries can help. Also included is a brief discussion of what happens during a procedure, how long it usually takes, and what type of recovery time you can expect.

Pre-Surgery Prep and Post-Surgery Care

Prior to your procedure, there are some important things you might be asked to do concerning exercise, nutrition, weight loss and diabetes control. Following your surgery, pain management will be an important part of your road to recovery, but you also need to be mindful of constipation and blood clots. Included is The Preparation Checklist that offers a quick glance at how to prepare for your procedure and what to avoid during your recovery.

Surgery Walk-Through

Receive a step-by-step overview of what will happen from the time you arrive at our facilities until you are discharged to go home.

Medical Equipment Guide

Learn about the types of helpful equipment you can use to make your recovery easier and more comfortable.

Post-Surgery Wellness

One of the best ways to have a successful recovery is to follow our recommended exercise guides.

My Healthcare Team

Surgeon - Your surgeon directs all aspects of your care. Your surgeon's office is the first place to go with your questions.

Registered Nurses (RN) - A RN will call you before your surgery to review your medical history, medications and to provide preoperative instructions. They will also be your primary caregiver during your stay at the hospital.

Medical Assistant - The medical assistant will help with scheduling your surgery and coordinate care with you. They can help answer your questions prior to and after surgery is complete.

Anesthesiologists - This is a specially trained physician who manages your anesthesia needs during surgery. They work closely with the surgeon to provide up to date care while you are in the OR. You will meet this provider the day of surgery.

Advanced Practice Provider (APP) - PAs and ARNPs are direct extensions of the surgeons. They will be in frequent contact with the nurses who care for you after surgery and will see you daily while you are in the hospital. They will also be involved in your pre and post-operative care.

Physical Therapist (PT) - A Physical Therapist will provide education and training on appropriate exercises, use of medical equipment, joint precautions, and safe mobility after your surgery.

Occupational Therapy (OT) - An Occupational Therapist will provide education on how to safely and independently complete self-cares, such as dressing, toileting and bathing.

Case Manager - The Case Manager will work with you by assessing your needs, coordinating care, developing a safe discharge plan including caregiver support, providing you with education and monitoring your progress for a successful recovery at home.

Overview of Surgery

Overview of a Total Knee Replacement

The knee joint is a hinge joint which primarily allows for extension and bending of the leg. It consists of three bones including the femur (thigh bone), tibia (shin bone) and the patella (kneecap). There are a variety of conditions that can lead to pain and degeneration of the knee joint. The first line treatments for knee pain

are nearly always non-operative, however your surgeon may discuss Total Knee Replacement as a means to alleviate pain.

Total knee replacement surgery removes the damaged surfaces and remaining cartilage around

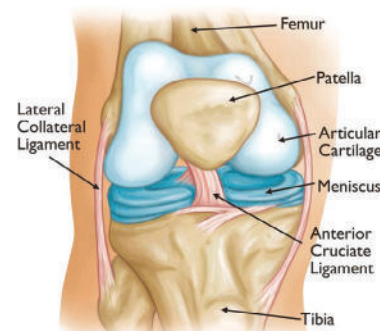


Fig. 1

the knee, which are then replaced by an implant. The implants consist of four primary parts to include the femur (thigh or top part), tibia (shin or bottom part), liner (new cartilage) and the patella (kneecap). Implants are made of various materials to include cobalt chrome, titanium, tantalum, and polyethylene. Bone cement may be used to secure the metal and plastic parts to the bone. In other cases, the implants can be “press fit” into place allowing your bone to grow into the metal.

During knee replacement, the ligaments on the sides of the knee (medial collateral and lateral collateral) are preserved. The anterior cruciate ligament (ACL) and sometimes the posterior cruciate ligament (PCL) are removed depending on the design of the implant used. Choice of implants varies based on factors to include age, overall health, activity level, deformity, and severity of arthritis. Your surgeon will choose the implant that is best suited for your needs and lifestyle.

The surgery typically takes 1-2 hours to complete. In many cases, you can go home the same day of surgery, but this is dependent on a variety of factors. Knee replacement surgery is a major operation, and each person will recover at a different rate. You can expect it to take 6-8 weeks to begin to feel better and at least one year for full recovery.

The Preparation Checklist

On the last page of this booklet, you will find [The Preparation Checklist](#). This contains a list of things to do, including: obtaining your medical equipment, facilitating a safer environment in your home and setting yourself up for success during recovery.

It is essential to complete this checklist to ensure a safe and fast recovery. Contact your surgeon’s office if you have questions or concerns.

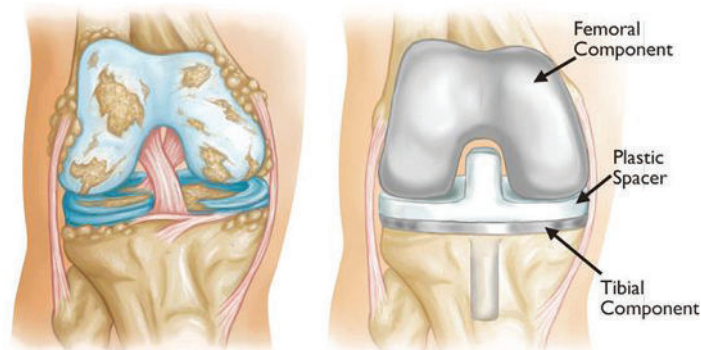


Fig. 2

Before Surgery

Patient Reported Outcomes

Joint replacement surgery has potential to greatly improve your quality of life and reduce pain. We want to make sure that you have the best outcome and experience possible during this process. We can do this by collecting information from you that helps us understand details about your life, activity level, and pain. You may have questionnaires sent to you prior to, and after surgery which help us better understand your progress. This helps us develop a customized care plan and address your individual needs. We will work with you to ensure that you have the best recovery possible and return to everyday life with the least amount of pain.

Exercise

You are encouraged to continue your regular exercise program leading up to surgery. Low impact aerobic exercise to include walking, water aerobics, or riding a stationary bike can improve your strength, range of motion, and endurance preoperatively which will contribute to a more successful outcome and recovery. Upper body conditioning exercises can help reduce muscle soreness and fatigue when using walking aides like a cane or walker after your surgery. You can also begin doing the exercises that are printed at the end of this packet.

Nutrition

Eating healthy and proper nutrition before your surgery will aid in the healing process. Suggestions for a healthy diet prior to surgery include:

- Aim to eat 3 meals per day that include a wide variety of foods.
- Eat foods rich in iron such as lean red meat, dark green leafy vegetables, raisins and prunes. Iron helps rebuild red blood cells.

- Eat adequate amounts of protein to help tissues heal. Foods like lean red meats, fish, poultry, beans, dairy products, and eggs are all protein rich foods.
- Include more fiber in your diet to help avoid constipation. Foods like whole wheat bread, brown rice, beans, whole wheat pasta, fresh fruits and vegetables are rich in fiber.
- Make sure you are getting enough calcium and vitamin D to keep your bones strong. Foods that are high in calcium include milk, yogurt, cheese, fortified cereal and dark leafy greens.
- Drink plenty of fluids and stay hydrated. Aim for 64 oz of fluids per day.

Obesity and Weight Loss

Increased body weight is a well known risk factor for complications in joint replacement surgery. This can put you at risk for:

- Poor wound healing
- Infection
- Blood clots and pulmonary embolism (a blood clot in the lungs)
- Difficulty breathing
- Implant related complications (loosening, wear, and failure)

We know that in general, surgical risk increases along with body weight. Your surgeon will look at your specific risk factors and may recommend weight loss prior to surgery. Your healthcare team can assist in creating a weight loss plan that is right for you and may refer you to a dietitian or the weight management clinic.

Diabetes and Blood Glucose Control

Keeping your blood glucose in goal range is extremely important before and after surgery. Patients with high blood glucose levels and diabetes are at much greater risk for infection and wound healing complications. You will have pre-operative labs done leading up to surgery and your surgeon may specifically order an average blood sugar study. If your average blood sugars are too high, you may be referred to your primary care doctor or a diabetes specialist to help get your blood glucose in control prior to and after surgery.

Nicotine & Cannabis Products

Any source of nicotine such as smoking, chewing tobacco, or e-cigarettes are known to delay healing after surgery and increase your risk for infection. Your surgeon may recommend or require you to be nicotine product free 4 weeks prior to and 4 weeks after your surgery. Your healthcare team will be happy to provide you with resources to aide in quitting if you would like assistance.

Frequent cannabis use can worsen postoperative pain control. If you use cannabis, it is very important that you avoid any consumption the day of your surgery.

Pre-Operative Narcotics

If you take opioid medications before your surgery, it may be more difficult to control your pain afterwards. It is important for your care team to know if the names and dosages of all pain medications you are taking before surgery. Your doctor may also discuss decreasing or discontinuing their use prior to surgery to help improve your chances of success. Patients who take opioids on a regular basis for pain before surgery are at increased risk for complications, revision surgery, decreased patient satisfaction and have lower outcome scores. Decreasing your narcotic medication usage prior to surgery can help mitigate some of these risks.

Day of Surgery

Anesthesia During Surgery

Your surgeon will discuss the anesthetic options in general with you prior to your surgery. On the day of surgery, you will meet with one of the anesthesiologists who will determine the best option for you. They will recommend a combination of anesthesia options to most safely and best control your pain. You will get an intravenous (IV) catheter which will be used to deliver medications to you during and after surgery.

Spinal anesthesia is the most commonly used type in joint replacement surgery, although it is not right for everyone. General anesthesia may also be considered or used in certain instances. You may also get a local block where the anesthesiologist injects medication around nerves in your leg to help with your pain following the procedure. Regardless of the type of anesthetic selected, your anesthesiologist will monitor you throughout the duration of the procedure.

Welcome!

Time to check in.

Central Campus - Green Wall Surgery & Procedures Entrance

Mares Campus - Mountain Entrance Surgery Center

Patient and family meet with our admitting staff to get checked in.

Patient goes home after discharge criteria is met.

Patient is assessed, monitored, treated until discharged.

Patient and family go to pre-op room. Pre-op is usually 60-90 minutes.

Let's Walk Through Your Day of Surgery

Patient goes to post-op and family joins in the room.

Patient goes to inpatient floor and family joins.

- In Pre-Op:**
- Change into a gown
 - Prep for surgery
 - Talk to medical team
 - IV and medications set

Same day surgery

Admitted for hospital stay

Patient goes to the operating room, family goes to the waiting room.

Recovery Room:

- 30-90 minutes
- Patient is monitored as they wake up

Surgery is complete:

- Patient goes to recovery room
- Family is notified when surgery is completed

Operating Room:

- Final prep for surgery
- Surgery begins



Following Your Surgery

Pain Management

There are a lot of things you can do to help manage your pain after your surgery. Medications like oxycodone (an opioid), ibuprofen or meloxicam (nonsteroidal anti-inflammatory drugs i.e. NSAIDs) methocarbamol (a muscle relaxant) and acetaminophen (Tylenol) can help to decrease your pain. A medication from each of these groups can be used together or separately to help you feel well enough to stay mobile. The goal of any pain medication use, especially opioids should be to allow you to use your new joint and do your exercises.

Opioids like oxycodone should be used at the lowest effective dose and for the shortest amount of time possible to limit risks and side effects. If you are taking an opioid prior to surgery your pain may be harder to control after your operation.

There are lots of things you can do to help your pain that aren't pills. Ice is strongly encouraged, as are breathing exercises (works for women in labor, can work for you too!) and meditation. Distraction is a valid option as well, so find a good book or TV series.

Constipation: One of the most common side effects of opioids is constipation. Moving well, drinking plenty of water and getting fiber can help, but most people after surgery end up needing some medications and we encourage you to take something early. We recommend medications that you can get over the counter like senna 8.6 mg tablets (take 2 tablets twice a day) or Miralax (polyethylene glycol 17 mg dissolved in water twice a day). Don't wait for constipation to happen. If these don't help, consider Milk of Magnesia or a Bisacodyl suppository.

Blood Clot Prevention: After your surgery you will need a medication to help prevent blood clots associated with your surgery. You may have a different medication prescribed based on your individual risks but aspirin is most commonly used. Even though this is an over the counter medication it is very important that you take these as prescribed.



Equipment Recommendations

Medical Equipment

Medical Equipment Resources

Before your surgery, we recommend that you check with people or organizations in your community for medical equipment resources you can borrow. For several weeks after your surgery you may need to use a walker and other medical equipment. If you're able to borrow the equipment from a community resource, you won't need to purchase it.

Medical Equipment to Consider

(Refer to the checklist on the back page)



Bath seat - Molded plastic with drain holes, rubber feet, and adjustable legs. Available with or without back. Sits inside tub.

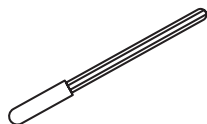


Coil shoelaces and elastic shoelaces - Shoes can be put on and taken off without tying and untying.

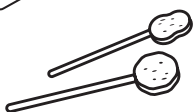


Dressing stick - Helps with all dressing chores, such as reaching zippers, socks, etc.

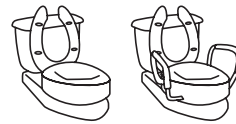
- **Grab bars** - Horizontal or vertical. Available in 12", 16", 18", 24", and 32" sizes. Need to be installed into the studs of the wall.
- **Hand-held showerhead** - Promotes independent bathing, increases safety by allowing user to shower while seated.



Long-handled shoe horn - Available in metal or plastic. Allows user to put shoes on without bending.



Long-handled sponge - Helps with washing lower legs, feet and other hard-to-reach areas.



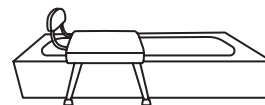
Raised toilet seat - Raised toilet seat has wide inner lip for added safety. It fits all toilets. Available with or without arms. Available with or without locking mechanism.



Reacher - Use this for putting on and taking off your pants. It is easier to dress the operated leg first and undress it last. A reacher will also help you pick up lightweight objects from the floor without bending.



Sock aid - Assists with pulling socks on.



Transfer bench - Two legs are outside of the tub. You sit on the outside and scoot your legs over the tub wall. Plastic or padded seat. Adjustable height back and legs. Rubber seat.



Walker - You may use a front-wheeled walker after surgery. A four-wheeled walker is not safe to use at this time. Label your walker with your name. Bring it with you when you come to the hospital for surgery so that we can make sure it fits you properly after surgery. If you do not have a front-wheeled walker, we will help you get one before discharge. Most people use a walker for two to four weeks after surgery.

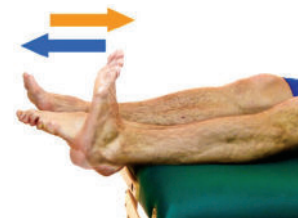
Total Knee Replacement Exercises

Review these exercises and proceed with what your Healthcare Team has recommended to aid in your recovery.

- Apply ice for 20 minutes 3-4 times per day for the first 7-10 days after surgery.
- Apply ice after exercise.
- Stairs: UP with non-surgical knee first and then DOWN with surgical knee first.
- Notify your physician if you have an unexplained worsening in your ability to move or stand on your surgical leg.
- Start exercises at 5 repetitions and work up to 20-25 per exercise session. Do exercises 2-3 times per day.

ANKLE PUMPS

Point your toes down like a ballerina, then bring them up toward you in the opposite direction. Repeat 10 times. Do frequently throughout the day.



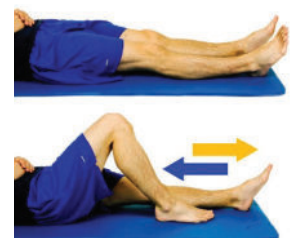
QUADRICEPS SETS

Tighten muscles on top of the thigh by pushing your knee down. Hold 5 seconds. Don't hold your breath.



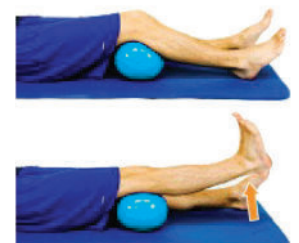
HEEL SLIDES

Slide the heel of the surgical leg up toward your body, while bending your knee and keeping the heel on the surface. Then slide your foot away from you to straighten the knee.



SHORT ARC QUAD

Place a 6"-8" towel roll under the knee. Straighten your leg by pushing the back of your surgical knee down into the towel roll while raising the heel off the bed. Hold 5 seconds, then slowly lower your heel back down.



Total Knee Arthroplasty Exercises

STRAIGHT LEG RAISE

Bend the opposite knee. While keeping the surgical knee straight, lift your leg 8"-10" from the surface. Hold 5 seconds, then slowly lower your leg back down.



KNEE EXTENSION STRETCH

Lie on your back with a towel roll under the heel of the surgical leg. Rest in this position, trying to straighten your leg. Begin for 1-2 minutes, then progress to 5 minutes.



SEATED KNEE FLEXION STRETCH

While in a seated position, slide your foot back to a bent knee position until you feel a stretch across the knee. Keep your foot planted on the floor. Then try to move your buttocks forward slightly toward the edge of the chair. Hold for 30 seconds, then slide your buttocks back and straighten your knee back out. Repeat this 2-3 times.



LONG ARC QUAD

While in a seated position, slowly straighten one knee so that your leg is straight out in front of you. Hold 5 seconds, then lower it back to the starting position and repeat.



HOME WALKING PROGRAM

Walk continuously for five minutes at a normal pace several times per day. Increase the time by 1 minute each day or as tolerated. Use an assistive device to maximize a normal gait. Your outpatient physical therapist can advise you when to stop using your walker and progress your exercises.

References

Fig. 1 & 2 (Page 3)

Sheth, N. P., & Foran, J. R. H. (2024, February). Total Knee Replacement - OrthoInfo - AAOS. OrthoInfo. <https://orthoinfo.aaos.org/en/treatment/total-knee-replacement/>

Contact Us

Weekdays:

8 AM TO 4:30 PM

509-436-4060

(After-hours service available)

Emergency: Dial 911

1201 South Miller Street

P.O. Box 1887

Wenatchee, WA

99807-1887

Other Resources

www.confluencehealth.org

The Confluence Health website is a source for detailed information about the organization, including hospital programs and services.



The Preparation Checklist

Before Your Surgery

In preparation for your surgery, refer to the following checklist of items. You will obtain your **medical equipment** (more info on [page 8](#)), facilitate a safer environment in your home and set yourself up for success during recovery.



THINGS TO DO

Be sure to have your equipment plan set up ahead of time.

Ensure you can safely navigate with a walker or crutches by removing clutter and obstacles (throw rugs, electric cords, footstools, etc.) and creating a wide, clear path from your bedroom to your bathroom and kitchen.

See a dentist for a checkup prior to surgery.

Choose a firm, straight-back chair with armrests to sit in after surgery. It should keep your knees lower than your hips. A foam cushion or folded blanket can be used to raise you up, but a soft pillow should be avoided. A dining room chair may work if you do not have other chairs. Rolling chairs should be avoided. Do NOT use low chairs or couch due to hip precautions.

Install grab bars to get into and out of your shower or tub. Remove rugs, including those in front of toilets and vanities.

Install handrails in stairways, or make sure existing handrails are secure. It is okay to climb stairs without assistance.

To avoid reaching or bending, keep frequently used items (food, medications, etc) within easy reach, especially in the kitchen, bedroom, and bathroom. It is a good idea to always carry a cell phone or portable phone with you during your recovery.

Freeze prepared meals and stock up on healthy non-perishable foods (boxed, canned, or frozen) to make meal preparation easier after surgery.

Ensure small children that live with you or will visit you after your surgery know how to safely interact with you and any assisting devices you plan to use during your recovery.

Plan to keep your pets in another area of the house when you get home. Practice using assisting equipment around them, so they are familiar with it before your surgery.

Complete any necessary yard work such as mowing, weeding, gardening, pruning or snow removal before your surgery.

Obtain OTC (over the counter) medications before your surgery. These may include stool softeners, laxatives, anti-inflammatory, blood clot management as indicated (i.e. Low dose Aspirin) and pain reliever (i.e. Acetaminophen).

Pick up any refills of regular prescription medications before surgery to ensure you have an ample supply during your recovery.

Obtain ice packs, gel packs or other methods to apply ice applications during your recovery.