

KNEE

Total Knee Replacement Guide for Patients



TotalJointandSpineCare.com



CENTER FOR TOTAL
JOINT AND SPINE CARE
at Sky Lakes Medical Center

WELCOME FROM YOUR SURGEONS, SKY LAKES MEDICAL CENTER, & YOUR HEALTH CARE TEAM

We will all be working with you in partnership to prepare you for your joint replacement surgery. You are our most important team member. Other members of the health care team will also be available to assist you, as necessary. They include: physician assistants, physical therapists, occupational therapists, social workers, and dietitians.

Our goal is to return you to your maximum functional ability. Recovery is a process that starts before you enter the hospital with education and participation. When you complete your hospital stay, recovery carries on at home and throughout your life. We hope this information will assist you in preparing for your surgical procedure.

Please, read it carefully and feel free to ask questions of any team member.

The first step in your joint surgery journey starts here:

<https://www.CenterForTotalJointandSpineCare.com/educational-materials/>

- 1 Schedule your joint replacement surgery.
- 2 Watch your pre-op video.
- 3 Arrange help.
- 4 Organize your home.

A successful surgery starts here.

We want the best for you and your surgery. Watch your preparation video as soon as possible.



KEVIN T. HEATON, D.O.

is a board-certified orthopedic surgeon, with a fellowship in Adult Reconstruction and Joint Replacement.



KARL R. KNUDSEN, M.D.

is a board-certified orthopedic surgeon with a fellowship in Sports Medicine/Arthroscopy and Shoulder Reconstruction.



EDWARD L. VAN TASSEL, D.O.

is a board-certified orthopedic surgeon and an Oregon native with more than 25 years of experience in General Orthopedics.



LUKE W. HOSACK, M.D.

is a board-certified orthopedic surgeon with a fellowship in total joints. He received his medical degree from University of Illinois College of Medicine.

ABOUT Your Surgery

A knee replacement (also called knee arthroplasty) might be more accurately termed a knee “resurfacing” because only the surface of the bones are actually replaced. The four basic steps to a knee replacement procedure:

1 Prepare the Bone

The damaged cartilage surfaces at the ends of the femur and tibia are removed along with a small amount of underlying bone.

2 Position the Implants

The removed cartilage and bone is replaced with metal components that recreate the surface of the joint. These metal parts may be cemented or “press-fit” into the bone.

3 Resurface the Patella

The under surface of the patella (kneecap) is cut and resurfaced with a plastic button. Some surgeons do not resurface the patella, depending upon the case.

4 Insert a Spacer

A medical-grade plastic spacer is inserted between the metal components to create a smooth gliding surface.

REALISTIC EXPECTATIONS OF KNEE REPLACEMENT SURGERY

An important factor in deciding whether to have total knee replacement surgery is understanding what the procedure can and cannot do. More than 90% of people who have total knee replacement surgery experience a dramatic reduction of knee pain and a significant improvement in the ability to perform common activities of daily living. But total knee replacement will not allow you to do more than you could before you developed arthritis.

With normal use and activity, every knee replacement implant begins to wear in its plastic spacer. Excessive activity or weight

may speed up this normal wear and may cause the knee replacement to loosen and become painful. Therefore, most surgeons advise against high-impact activities such as running, jogging, jumping, or other high-impact sports for the rest of your life after surgery.

Realistic activities following total knee replacement include unlimited walking, swimming, golf, driving, light hiking, biking, ballroom dancing, and other low-impact sports. With appropriate activity modification, knee replacements can last for many years.

12 Weeks After Surgery You Should Be Able to:

- ▶ Walk up and down stairs normally using rail
- ▶ Independently transfer in and out of vehicles
- ▶ Walk with equal weight-bearing of legs without a limp
- ▶ Experience minimal pain with a full day's activities
- ▶ Dress yourself independently
- ▶ Have full knee range of motion without assistance

EXERCISES

Performing these basic exercises will help prevent blood clots, increase your strength, and improve your overall comfort. Begin them a month or two prior to your surgery, if possible. Continue to perform exercises, as able, during your hospital stay and advance them, as able, after returning home. **3 sets a day, 10-15 repetitions, each focusing on the muscles involved in each exercise.**

Ankle Pumps: Point your toes toward you and then away, moving your ankle through your full range of motion. This exercise is good for your circulation.



Visit TotalJointandSpineCare.com for Helpful Videos of Our Exercises!



Glute Sets: Tighten the muscles of your buttocks together, hold for 5 seconds while breathing slow and deep, then release.



Quad Sets: Tighten the muscles in the front of your thigh by pushing the back of your knee down into the surface while pointing your toes up toward your nose, hold for 5 seconds then release.

Heel Slides: Reclined or lying on your back. Bend your unoperated leg for support. Slide the heel of your surgical leg up towards your buttocks until you feel a stretch, keeping your heel in contact with the surface. Hold for 3 seconds, then slowly and fully straighten your leg. Build up to 10 second holds.



Straight Leg Raise: Reclined or lying on your back. Bend your unoperated leg for support. With your surgical leg as straight as possible, raise your foot 6-12 inches off the surface. Hold for 3 seconds, then slowly lower.



Short-Arc Quads: Reclined or lying on your back with a rolled towel under your surgical knee. Bend your unoperated leg for support, if needed. Keeping your surgical leg on the towel, lift your foot several inches to fully straighten your knee. Hold for 3 seconds, then slowly lower. This is the only time anything should be placed under your knee.



Sit-to-Stands: To stand, scoot to the edge of the seat with your surgical leg straightened out in front of you and your unoperated leg against the chair. Place at least one hand on the sitting surface or armrest and position your "nose over your toes" for balance. Straighten your unoperated leg and push up in a controlled manner.

To sit, touch the back of your legs against the chair. When using a walker, it should also be touching your chair. Straighten your surgical leg out in front of you, reach back to the armrest or sitting surface, and slowly sit while keeping your surgical leg out in front of you.

Passive Knee Extension: Reclined or lying on your back with a rolled towel under the ankle of your surgical leg. Relax your leg muscles to allow gentle stretching of the muscles of the back of your leg. Start with 5-10 minutes and work up to 30 minutes at a time. *Perform 3 times a day to start and increase as able.



PLANNING AHEAD

Preparing Your Home: Small adjustments and updates can make a big difference in your safety and comfort following a joint replacement surgery. We recommend setting up a central base on the entry level of your home and to consider the following:

Sit Taller: Taller and firmer recliners, couches, or chairs with armrests allow for easier standing and sitting. Pair them with an ottoman or coffee table for elevation and straightening of legs. Fold up a firm blanket to add temporary height.

Avoiding Toilet Troubles: Keep bathrooms close initially. You will not be moving as fast as you are used to and may need assistance at times. Knowing and preparing will improve your safety and comfort, especially for those with urgency issues.

Clear the Way: Remove throw rugs, cords, clutter, and sharp or fragile objects from your way. Widen pathways for clear passage of a walker.

Entertain Yourself: Positive distraction can be a powerful form of pain management and a mood booster.

REDUCE YOUR **Fall Risk**

Remove Hazards: Perform home repairs ahead of time and arrange assistance for yard work or snow removal. If you have pets, create a plan to keep pets away from your incision and to prevent them from becoming a tripping risk.

Use Safety Equipment: If needed: Repair or add railing to stairs. Install grab bars, a non-slip mat, a handheld shower head, and a tub transfer bench in the bathroom. For toilet needs, you may want to obtain a bedside commode or toilet riser.

Add Lighting: Replace bulbs and add night lights where light switches are not immediately within reach. Visit your eye care center before your surgery to update your glasses prescription, if needed.

Get Organized: Arrange frequently used items within easy reach and readily available. Plan to have your coach assist you with more difficult tasks such as stairs and bathing the first few times.

Ride in Comfort: Getting in and out of a medium height vehicle tends to be more comfortable and safer than other options. Pillows can help support and elevate your surgical leg when returning home. See page 11 for detailed car transfer instructions.

DISCHARGE PLANNING

Home with Your Coach

- Coach to provide live-in assistance with near 24/7 availability for the first 5-7 days.
- Transportation arranged for 4-6 weeks.
- If you do not have enough assistance at home, your care team will help review possible options with you.

YOUR COACH

While joint replacement surgery is common and proven to be effective in achieving good outcomes, it is still a significant surgery that requires preparation, persistence, and help from others. We strongly recommend patients have a family member or close friend to attend pre-operation appointments, be present during key times leading up to surgery and during the hospital stay, and provide live-in assistance for the first 5-7 days. We call this individual your coach.

A good coach is someone whom you are comfortable with and able to receive direction from. This person should be:

trustworthy, dependable, organized, aware of your general health, familiar with your home and habits, physically and mentally capable of assisting you, someone who is comfortable with you.

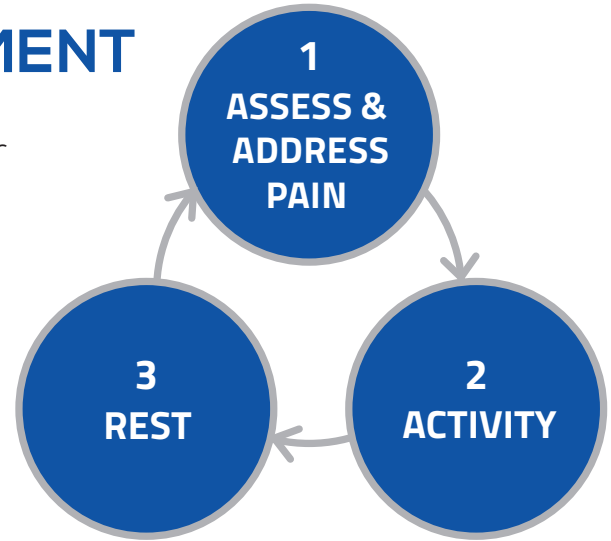
Some ways your coach could assist you include: assist with medical forms, learn surgical process, provide constructive reminders and feedback, aide you in performing exercises and adhering to surgical precautions, manage and administer medications, assist with bathing and toileting, meal prep, care for pets and property, keep you on top of your schedule, and drive you to appointments.

TRANSPORTATION

You will not be allowed to drive for 4 - 6 weeks following your surgery and should arrange transportation for this time. Medium height vehicles with spacious leg room typically allow for easier transfers.

REHABILITATION CYCLE OF JOINT REPLACEMENT

1. Assess & Address Pain: Is your pain tolerable while you perform activity? Are you able to rest? Are you reaching all of your rehab goals? If you answered yes to these questions, you are in a good spot to reduce your pain medication further. Remember to plan your therapy or activity for an hour after taking your pain medication for greater effectiveness.



2. Activity: Frequent short walks or bouts of exercises are recommended early on. Try to increase your activity level every couple of days while improving your consistency of walking and exercises each day. Start slow, focus on your leg muscles and on proper movements.

3. Rest: Rest should always follow activity during the rehabilitation of your joint replacement. If you have been resting for 15-20 minutes and your pain level is not down to a level you are comfortable with, you probably overdid your activity. Healing takes time. Ice and elevation of your leg are encouraged to reduce swelling.

KNEE PRECAUTIONS

Reach the range of motion goals for straightening and bending your knee:

- 10 - 90° the day after surgery
- 0 - 120° by the end of rehabilitation

When resting, try to keep your knee fully straight and avoid placing anything under your knee that encourages a bend.

Unless instructed otherwise, you will be encouraged to stand with full weight through your surgical leg after surgery.

Early on in your recovery, plan new or more strenuous activities about an hour after taking your pain medication to decrease discomfort.

PRE-OP APPOINTMENT

What to Bring

- ✓ Current photo identification
- ✓ All insurance information
- ✓ Your coach
- ✓ Complete medication & supplement list
- ✓ This book

What You Leave With

- ✓ Wristband identification
- ✓ List of medications to bring the day of surgery, if needed

DAY OF SURGERY

What to Bring

- ✓ Loose fitting shorts and comfortable t-shirts.
- ✓ Glasses/contact lenses & case.
- ✓ Payment for outpatient prescriptions.
- ✓ If instructed, bring medications to nurse in the original container.
- ✓ Hearing aids, dentures, CPAP, and prostheses, if applicable.
- ✓ Identification and insurance cards, supplemental pharmacy card, if applicable.

Don't Forget...

Before your surgery, schedule your first outpatient physical therapy appointment for one week after your surgery, with the clinic of your choice.

NIGHT BEFORE

Do not eat or drink anything after midnight, including chewing gum, candy, and water. You may brush your teeth or rinse your mouth as often as you wish, but do not swallow.

Follow your doctor's orders about your medication. Your doctor may have you take certain medications with a sip of water the morning of your surgery, but always check first. Try to get a good night's sleep. Being well-rested before surgery is helpful.

Leave at Home

- ✗ Jewelry
- ✗ Keys
- ✗ Unnecessary Valuables

MAKE ARRANGEMENTS AHEAD OF TIME

- » Meals that are quick to make and simple (e.g. frozen, pre-made meals).
- » Hold mail and newspapers, if you will not be home.
- » Care of pets and animals.
- » Yard work, garbage removal, and other necessary chores.
- » Transportation to and from the hospital and follow-up appointments (You may want to obtain a temporary disabled person permit from the DMV).

OBTAIN RECOMMENDED ADAPTIVE EQUIPMENT

Such as...

- » **Front-wheeled Walker (FWW)**

Provides support and safety, for best rehabilitation results while walking. A basket or bag for the walker helps carry small, lightweight items.

- » **Transfer Bench**

Increases safety and comfort during transfers and bathing for individuals who have tub in combination with a handheld shower head.

- » **Shower Chair**

Decreases fall risk and fatigue with showering in a walk-in shower setup.

* **Check with your insurance provider for coverage of equipment prior to purchase on your own.**



WALKING UP STAIRS

- Position your feet next to the step, holding the rail(s), if available. Your coach should be behind you when going up stairs.
- With your surgical leg supporting you, step up with your unoperated leg while pushing down through the railing.
- Push with your unoperated leg to advance to the next step, bringing your surgical leg to the same level. Repeat for each step.



WALKING DOWN STAIRS

- With your feet to the edge of the step, hold the rail(s), if available. Your coach should be in front of you when going down stairs.
- Step down with your surgical leg, using your unoperated leg to gently lower you while pushing down through the railing.
- With your surgical leg supporting you, step your unoperated leg down while pushing down on the railing or walker. Repeat for each step.



CAR TRANSFERS

Medium height vehicles with a good amount of leg room tend to be a more comfortable option for most individuals. The front passenger seat usually works best with a recent surgery. Recline the seat and slide it back to protect your surgery and for easier movement. By practicing correct transfers in and out of bed, you will find car transfers easier and safer. Your physical therapist can help address concerns or questions you may have regarding car transfers.

Car transfers are performed similarly to bed transfers. Back up to the vehicle seat with your walker until you feel the seat against the back of your legs. Slide your surgical foot forward and reach back with one hand for the seat. Slowly lower yourself to the edge of the seat then scoot back. Walk your legs into the vehicle while keeping your surgical precautions. Walk your legs into the vehicle while following your surgical precautions.

Pain Management Varies Greatly from Person to Person.

Patients tend to experience the most intense pain during the first week. At certain times of the day, your discomfort can be more intense, specifically after exercises and therapy. Although post-surgical pain is a normal part of the healing process, severe pain is not. When discharged from the hospital, your doctor will prescribe the medication that has been most successful in managing your pain during your hospitalization. **Best pain management guidelines:**

- The first few days at home can be the most painful. **"Assess and Address"** your pain level frequently as you learn to manage and balance your swelling, activity and pain cycle.
- Do not allow your pain to become severe before taking pain medication. Pain medication generally starts working in **30 minutes** and peaks at **60 minutes**.
- Plan your pain medication around activity, ideally 1 hour prior to exercise or therapy.
- Your pain medication will be prescribed every 4-6 hours **as needed**. To prevent overmedication, please evaluate drowsiness level and side effects before taking medication.



SIDE EFFECTS OF OPIOID PAIN MEDICATION

Constipation a common and treatable side effect. While on opioid medication, it is advised to take some form of stool softener and ensure adequate intake of water, fruits, and vegetables on a daily basis (see insert for details).

Drowsiness/Dizziness exercise caution with activities and avoid driving while taking opioid medication, which impairs judgement and reaction time.

Nausea always take opioid medication with food to lessen symptoms. Reducing dose and increasing time between pills may be necessary.

Itching can be a common side effect. Call your surgeon's office, if it becomes severe.

If you experience any of the following, stop taking opioid pain medication, and call Klamath Orthopedic and Sports Medicine Clinic 541.884.7746, or consider visiting the emergency department:

Vomiting if nausea progresses to vomiting and you are unable to keep fluids down.

Rash or Hives red or skin colored welts and bumps may or may not be painful.

Confusion if drowsiness progresses to excessive sleepiness or confusion.

PAIN CYCLE STRATEGIES

- Stand up and take a short walk, then reposition every hour.
- Perform a few of the exercises, especially ankle pumps.
- Ice to surgical area and other locations that are swollen or painful (see instructions on the next page).
- Use an ace type wrap to provide some compression to the surgical area.
- Use distraction such as TV, music, games, crafts, conversation and reading.
- Lie down and elevate your leg above the level of your heart if you are experiencing painful swelling.
- Relaxation techniques such as visualization, progressive muscle relaxation and deep breathing exercises can reduce stress and enhance comfort.

WEANING OFF PAIN MEDICATION

As you begin to heal, you will gradually require less pain medication and should begin to taper off opioids. Your surgeon will reduce the strength of your pain medication over the next few weeks with the goal of weaning off completely by **4-6 weeks post-operatively**. Tapering off pain medication at a faster rate is acceptable as long as you are meeting your rehabilitation goals.

- ▶ Extend the time between pill(s) from 4 hours to 5 or 6 hours.
- ▶ Take 1 pill instead of 2 and then a ½ pill instead of 1 until you have weaned off completely.
- ▶ Substitute plain Tylenol for opioid pain medication. ***Do not exceed 4000 mg of Tylenol in a 24 hour period.**
- ▶ Check with your doctor for permission to substitute NSAIDs (Naproxen or Ibuprofen) for opioids.
- ▶ Remember to take pain medication before Physical Therapy to get the most out of your session.
- ▶ It is ideal to taper slowly if you have been taking pain medications regularly for weeks. If you experience: sweating, shaking, anxiety, nausea/vomiting or agitation, call Klamath Orthopedic and Sports Medicine Clinic 541.884.7746 or your PCP to discuss a different approach for tapering from your pain medication.

REFILLS

Call Klamath Orthopedic and Sports Medicine Clinic (KOSM) 541.884.7746 directly for pain prescription refills. They require **two days' notice** to write your prescription, so monitor your medication as you near the weekend.

SWELLING AND BRUISING MANAGEMENT

A few days after your surgery, swelling and bruising will begin to increase and can be significant, especially for individuals with fragile skin and who take anti-coagulant medication. This is the normal response of the body and expected. Swelling should be addressed multiple times throughout the day for both comfort and function.

Rest: Build frequent breaks into your activities and take time to listen to your body.

Ice: Remember the 20/20 rule. Apply an ice pack for a maximum of 20 minutes at one time followed by at least a 20 minute break before reapplying. You should always have a barrier, like a pillow case, between your skin and the ice pack.

Compression: Light compression from an ace wrap or compression stockings may assist in decreasing swelling. Do not let the compression material roll or bunch up to create a tourniquet effect.

Elevation: Raise your leg above the level of your heart by lying down flat on your back with pillows under your calf and ankle.

THERAPEUTIC USE OF ICE

- Apply ice to incision or painful area; especially after activity or therapy.
- Apply ice for 15-20 minutes on and off frequently for the first 2-3 days and as needed for swelling through recovery.
- Always place a thin sheet around the ice pack to protect skin and prevent frost bite.
- Avoid heat to incision area unless instructed by physician.

Homemade Ice Pack: Mix 1 part rubbing alcohol with 2 parts water in a sealable plastic bag and freeze. An alternative method is to place raw rice in a sealable plastic bag and freeze.

BEDROOM ENVIRONMENT

Pillows help in positioning when used appropriately. Position items you may need (phone, tissues, ice pack, water, etc.) within reach to avoid straining or additional activity when needing to rest.

Sleep Positions for Knee Replacement:



On your back...

Do not put a pillow under your knee, which would encourage a bend. While resting, try to keep your operative knee fully straight.



On either side...

Use pillows between legs for support as needed. While resting, try to keep your operative knee fully straight.

SHOWERING

If there is no drainage from your incision, you may shower 3 days after your surgery. Let water run down your leg/incision in the shower. Do not submerge or scrub your incision site.

LEG BANDAGE

Keep dressing clean and dry and change as instructed. Monitor incision for warmth, redness or increased drainage. Do not apply lotions, creams, oils or powders near incision.

DENTAL PROCEDURES

Avoid dental work for three months following your surgery. Inform your dentist about your joint replacement to arrange for antibiotics before any procedure is performed.

Talk with your orthopedic surgeon about antibiotics before any dental or medically invasive procedures to prevent an infection of your new artificial joint.

If you experience any of the following, call your surgeon's office or consider visiting the emergency department:

- **Fever over 102°**
- **Round the clock nausea/vomiting, not keeping fluids down for over 24 hours**
- **Excessive and/or discolored drainage from the incision**
- **Swelling or pain in the calf or leg**
- **Hot to the touch or red incision**

CALL 911 IF...

- **You have difficulty breathing**
- **You have chest pain**



TotalJointandSpineCare.com



KLAMATH ORTHOPEDIC
& Sports Medicine Clinic

2865 Daggett Avenue
Klamath Falls, OR 97601
541.882.6311
SkyLakes.org

2200 Bryant Williams Drive, Ste 1
Klamath Falls, OR 97601
541.884.7746
KlamathBones.com