

# THE OREGON CLINIC

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Orthopedics

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# Preparing for Knee Surgery

## 2 weeks before surgery

- Stop taking vitamin E supplements, fish oil supplements, ginkgo biloba or herbal remedies. We want to avoid any interactions with anesthesia or medications you may be given during your stay.
- Arrange to have someone take you home when you leave the facility. You will also need someone to help you at home for approximately 1-2 weeks.
- Arrange for someone to pick up your prescriptions from your pharmacy.
- **Prepare your house for your recovery:**
  - Make plans for someone to care for your pet
  - Clear stairs and pathways of any clutter.
  - Remove throw rugs
  - Place slip-proof mats or strips in the bath/shower
  - Make sure bath rugs are slip-resistant and water absorbent
  - Make sure the path from bedroom to the bathroom is well lit. Nightlights are recommended.

## 1 week before surgery

- Stop taking aspirin products. **If you are taking aspirin as prescribed by your physician, consult with him/her before stopping.**
- Call to schedule a physical therapy appointment within 2 weeks of your operation. If you need recommendations on locations that work with your insurance, call our office at **503-238-1061**

## 3 days before surgery

- Stop taking any medications that may cause bleeding: anti-inflammatories, Motrin, Naproxen, Voltaren and Advil. If you have any questions about a medication, call our office.
- Nursing staff may contact you to review your health history and give you instructions on what to expect the day of your procedure. `
- Take your 1st of 3 showers. Specific instructions in "**3 days, 3 showers, fewer germs**" section on page 4.

## 2 days before surgery

- Take your 2nd of 3 showers. Specific instructions in "**3 days, 3 showers, fewer germs**" section on page 4.

## Night before surgery

- Take nothing by mouth after midnight. This includes candies, gum, cigarettes, chewing tobacco, coffee and water.
- Your anesthesiologist will make an effort to contact you the night before your surgery to discuss any concerns you might have. It is important to let your anesthesiology provider know about all medications and supplements you take and if you or a family member ever had problems with anesthesia in the past.

## Day of surgery

- Take your usual morning medications with sips of water unless otherwise instructed by your surgeon, anesthesiologist, or nurse. If you have diabetes or take anticoagulation medications, please check with your surgeon or primary care doctor as to when to stop or continue taking these medications.
- **What to bring**
  - This brochure
  - Your own assistive device (walker or crutches) if you own one. If not, we can provide one for you with minimal to no cost to you.
  - **Clothing:** Comfortable, loose-fitting clothing that is easy to get on and off (shorts or sweats). Non-skid socks will be provided
  - Shoes or slippers with flat, non-skid soles and an enclosed heel to practice walking. Your feet may swell, so please bring a shoe that is looser fitting.
  - Personal devices: hearing aids, eyeglasses and dentures
  - DO NOT bring any medications from home unless specifically instructed to do so.

### **3 Showers, 3 days, fewer germs**

All humans have bacteria and germs that live on their skin—usually completely harmlessly. Before surgery, however, your body needs to be as clean as possible because these bacteria can sometimes cause an infection.

It is essential that you shower at least once a day in the 3 days leading up to your surgery:

- **First Shower** – two or three days before your surgery.
- **Second Shower** – one or two days before your surgery
- **Third Shower** – the day of surgery or the night before

#### **Shower Instructions:**

- You should take time to scrub the knee that you are having surgery on with soap.
- DO NOT shave the surgical area.
- Make sure that you rinse your body thoroughly.
- Use a fresh, clean towel to dry your body and after your shower, dress in freshly washed clothes.
- DO NOT use lotions, powders, or creams after this shower.
- Sleep in fresh, clean sheets and pillowcases for the next 3 days.

# Recovering from Knee Surgery

## After Surgery

- Your surgeon will call the person who is picking you up and let them know how everything went during the surgery. It will then be about an hour or two until you have recovered enough to go home.
- During the first two hours after surgery, you will be cared for in the recovery room where nurses will check your blood pressure, pulse, oxygen level, manage your pain and watch you closely for the next several hours.
- The nursing staff will go over the post-op instructions in detail once you have recovered enough from the anesthesia.
- You may not remember this portion of your day, so the surgeon or physician assistant will make sure to go over the procedure specifics at your first post-op visit.
- Please keep in mind throughout your recovery that everyone's experience is unique, so rehabilitation may take more or less time than you anticipate.

## After Discharge

### Wound Care

- Keep the ace wrap and dressings in place until 48 hours after surgery. Then remove the ace wrap and the gauze bandages.
  - Expect some bloody drainage on your surgical dressing, this is normal.
  - Some incisions will have absorbable glue while others will have white/brown tapes (steri-strips). Leave those on as they will fall off on their own. If they are still on after 14 days, you should remove them.
- Once the dressings are removed (after 48 hours), you can get the incision wet in a regular shower, however, do not take a bath or use a pool or hot tub for 3 weeks.
- You can leave the incisions open to air when not wearing the brace, but you should re-apply your ace wrap over the knee when wearing the brace to avoid irritation.
- You may notice that the incision looks a little puffy and pink around the edges. This is normal inflammation and healing.
- **Call your doctor if you develop any of the following signs:**
  - Severe redness, increased pain or increased swelling of the incision
  - An increase in the amount of drainage from the incision
  - Thick or foul-smelling discharge from the wound
  - Separation of wound edges
  - Body temperature higher than 101 degrees

## Brace

You should sleep in the brace for the first 2 weeks to help with pain. The range of motion will be locked from 0-90 degrees for 6 weeks. It is okay to remove the brace if needed while doing the range of motion exercises. You can wean out of the brace as tolerated as you get more strength and coordination of the leg, but do not force the bend of the knee past 90 degrees. You can take it off to do the home exercises, shower, and when sitting down and not doing activity.

**If you had a meniscus repair or OATs**, you should be in the brace for 6-8 weeks.

You will have a brace fitted at the time of surgery. It may not fit perfectly once the bandages are removed. Please refer to this QR code for help adjusting it.



## Activity

- **If you have an ACL reconstruction only**, you can start putting on as much weight as you can tolerate with crutches with the brace unlocked starting the 1st day after surgery. You can wean off the crutches over the next 2 weeks.
- **If you had a meniscus repair**, you can put as much weight as tolerated with the brace locked fully straight.
- **If you had a meniscus ROOT repair or OATs**, you will be non-weight bearing for 6 weeks.

Elevate your knee and leg above your heart as much as possible, especially the first few days to minimize swelling. Avoid pillows under the knee. Place pillows under the calf or ankle to get your knee straight.

If you experience numbness, tingling, pain in your foot or toes, the ACE wrap on your knee may be too tight. You may loosen the ACE bandage and re-wrap it as needed but be sure to keep it on for 2 days after surgery.

### **Early Rehabilitation Exercises to start ASAP:**

Dedicate 30 minutes, 3 times per day to the following exercises:

- Gently rub and massage the skin around the kneecap and the incisions to minimize scar tissue.
- Quad sets – Contract quads for 30 seconds, then relax.
- Straight Leg raises - With brace locked in extension, practice lifting up your leg and engaging your quad muscles
- Towel Roll - Place a rolled towel about 3 inches thick under your ankle so you can fully extend and contract leg muscles to straighten and relax the knee.
- You must work to get your knee fully straight by putting a pillow under your calf and pushing down on your thigh to get fully straight.
- **DO NOT try to do new exercises unless instructed by your therapist or surgeon.**

## Ice Machine

Use the ice machine with the sleeve continuously while the dressing is in place for the first 2 days. Then, after the dressing is removed, use it with a towel between the sleeve and your skin for roughly 30 minutes to an hour to minimize swelling and pain.

Check the skin regularly to ensure that the skin does not get too cold. Follow the directions on the cooler of the ice machine.

## Medications

You should resume all your regular medicines as previously prescribed starting the day after surgery. You will also be prescribed several medications for post-op use.

Your doctor will write prescriptions for the following medications. Be sure to pick them up and have them ready before your surgery:

- **Mobic**
- **Ondansetron**
- **Colace**
- **Oxycodone**—these will be given to you on paper, rather than called in, and will need to be taken to the pharmacy to fill.

The pain medication should be taken as follows:

- **Tylenol extra strength** (acetaminophen): 2 tabs every 8 hours. DO NOT exceed 6 tabs (3000mg) per day.
- **Mobic**: 1 tab daily
- **Aspirin (81 mg)**: 2 times a day for 21 days to prevent blood clots
- **Oxycodone**: 1 tab every 4-6 hours as needed, with food. **If you're still in pain, it's ok to take 2 Oxycodone tabs every 3-4 hours.** Pain medication can cause the following side effects:
  - **Nausea and vomiting**: Remember to take your medication with food
  - **Itching and/or rash**: Notify your doctor.
  - **Dizziness**: Be especially cautious when first standing up. Rise slowly and be sure to have a person or sturdy object to help you until you find your balance.
  - **Constipation**: Drink plenty of fluids while taking pain medications
  - DO NOT drink alcohol or drive when taking narcotic pain medications (e.g., Tylenol with codeine, Vicodin, Oxycodone, Percocet, Norco).
- **Ondansetron (zofran)**: every 8 hours as-needed for nausea
- **Colace**: every 12 hours as-needed for constipation

## **PREVENTION OF BLOOD CLOTS**

Blood clots can form and cause symptoms in either leg up to three months after surgery. Blood clots can break free and travel to the heart and lung, causing life-threatening problems.

To recover fully and to prevent blood clots from forming, it is important that you continue leg and ankle exercises and gradually increase your activity and walking distance.



Pain and/or significant swelling in the calf of either leg may be signs of a blood clot. Report them to your doctor immediately.

Call 911 if you notice the following signs as they could indicate a blood clot in your lungs:

- Difficulty breathing
- Chest pain
- Coughing up blood
- Unusual upper back pain

# Frequently Asked Questions

## Why am I bruising?

We use a tourniquet during the surgery that can cause bruising from thigh to calf. Sometimes the bruising can be seen in the foot since the blood follows gravity. The bruising can be worse when you're on blood thinners.

## How often should I ice?

The first two weeks ice routinely, every few hours for 20 minutes. After this, you can continue to ice as needed.

## How long should I be using the pain medications?

We recommended initially (roughly the 1st week) having a consistent pain medication regimen and then you can begin to wean down as needed. This can be done by spacing out the medication or reducing the dose. It is best to wean off narcotics first and continue with Tylenol and/or NSAIDs as needed.

## When can I drive?

You should not be driving if you have consumed narcotics in the past 6 hours. **For the left knee**, you may start driving when you can comfortably get into and out of the car—usually within 2 weeks. **For the right knee**, you will need enough strength and coordination to be able to slam on the brakes. This will depend on when you are off crutches. This can range from 2 weeks if you only had an ACL reconstruction to 8 weeks if you were non-weight bearing for 6 weeks.

## When can I go back to work?

Everyone's job requirements are different! If you can work remotely, you can return to work when you are off narcotic pain medication. If you work in a physical job, you may not be able to return for 3-6 months. We will work with you to provide notes for any modifications or light duty.

### **Why is my knee still swollen?**

Knee swelling is normal throughout your recovery. As the knee experiences stress it hasn't felt in a while, the reaction is to swell. You should expect the swelling to improve over the next several days. You can also ice the knee and take an anti-inflammatory to help.

### **Why does my knee click and pop?**

Clicking and popping are normal sounds from any joint. Once you have surgery, the clicking may get worse in that specific joint. This is completely normal—don't worry!

### **When can I return to activity?**

Below are some milestones for certain activities. Your physical therapist may advance you or hold you back depending on your progress.

Swimming	Week 4 (freestyle only)
Treadmill walking	Week 4-6
Elliptical	Week 4
Stair stepper	Week 6
Rowing	Week 10
Outdoor biking	Week 12
Golf	Week 16-20
Running	Month 3-4
Skiing, basketball, tennis, football	Month 9-12

This is the general physical therapy protocol, if you had a **meniscus repair or OATs**, you will be given a specific one at your first post-op visit.

## **ACL Physical Therapy Protocol**

### **Post op:**

### **Begin:** \_\_\_\_\_

#### Goals:

1. Minimize swelling
2. Minimize quadriceps inhibition
3. Protect graft

#### Exercises:

1. Quad sets, straight leg raises (biofeedback, NMES)
2. Hamstring stretch, calf towel stretch, ankle pumps
3. Patella mobs
4. Hip extension
5. ROM: prone hangs (not with hamstring graft unless full extension is not being attained), knee flexion sitting

#### Weight bearing:

As tolerated with crutches

### **Weeks 1-3**

### **Begin:** \_\_\_\_\_

**\*\*DO NOT PUSH FLEXION PAST 90 DEGREES FOR THE FIRST SIX WEEKS!**

#### Goals:

1. 90 degrees flexion ROM, full extension
2. Independent quad contraction
3. Gait without crutches by end of week 2

#### Exercises:

1. Continue with post-op program, add weight to SLR if no extension lag
2. Add bike for ROM, strength, and cardio benefit; pedal as tolerated
3. 4-way hip machine, initiate closed kinetic chain CKC to include

- toe and heel raises, dynamic terminal extension, mini-squats
4. Gait training with mini-hurdles to restore normal gait kinematics

**Weeks 4-6**

**Begin:**

Goals:

1. ROM 0-120 as tolerated
2. Normal gait cycle by weeks 3-4
3. KT 1000 at 6 weeks post-op

Exercises:

1. Continue with post-op exercises as home exercise program
2. Advance CKC program to: step-ups, modified lunges
3. Initiate isotonic weight machines
  - a. Leg extension 90-30 degrees (BPTB – eccentric x 6 weeks, HS concentric starting at week 3)
  - b. Hamstring curls (start with standing HS curls at week 3 for hamstring graft; progress to weight machine)
  - c. Leg press
4. Initiate proprioceptive program – single leg stance,

balance

board

**Weeks 6-12**

**Begin:**

Goals:

1. Full ROM
2. Swelling < 1-2 cm at midpatella
3. Prevent patella femoral pain with exercises

Test:

1. KT 1000 and isokinetic test at week 12

Exercises:

1. Continue with above program

BPTB

week 8 with  
(330d/sec) to slow speed  
once per week only

2. Leg extension can be concentric 90=30 after week 6 for
3. Begin isokinetics 90-30 degrees, practice starting at progression from fast speed (60d/sec), practice
4. Add shuttle for plyometrics at week 10

**Weeks 12-26**

**Begin:** \_\_\_\_\_

Goals:

to side

1. KT 1000 side to side difference <3 mm
2. Quad and hamstring isokinetic difference <30% on side comparison

Tests:

1. KT 1000, isokinetic, functional hop test at 26 weeks

Exercises:

1. Continue gym program
2. Begin plyometric if above criteria is met
3. Sport specific training at 5 months
4. Progress into sports at 9-12 months