



**Knee & Hip Replacement**  
**Hoag Orthopedic Institute**  
**Ambulatory Surgery Centers**  
Aliso Viejo, Mission Viejo (CSSC), and Orange

## Hoag Orthopedic Institute Surgery Centers



### **Hoag Orthopedic Institute Surgery Center Aliso Viejo**

15 Mareblu, Suite 100  
Aliso Viejo, CA 92656  
949-658-0100



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280 S. Main Street, Suite 100  
Orange, CA 92868  
714-704-1900



### **California Specialty Surgery Center**

26371 Crown Valley Parkway  
Mission Viejo, CA 92691  
949-348-0544

# Terms

## Joint

- Part of the body where two or more bones meet to allow movement

## Ligament

- Tough, flexible fibrous connective tissue which connects two bones or cartilages or holds a joint together

## Cartilage

- Strong, flexible connective tissue that protects your joints and bones

## Synovial fluid

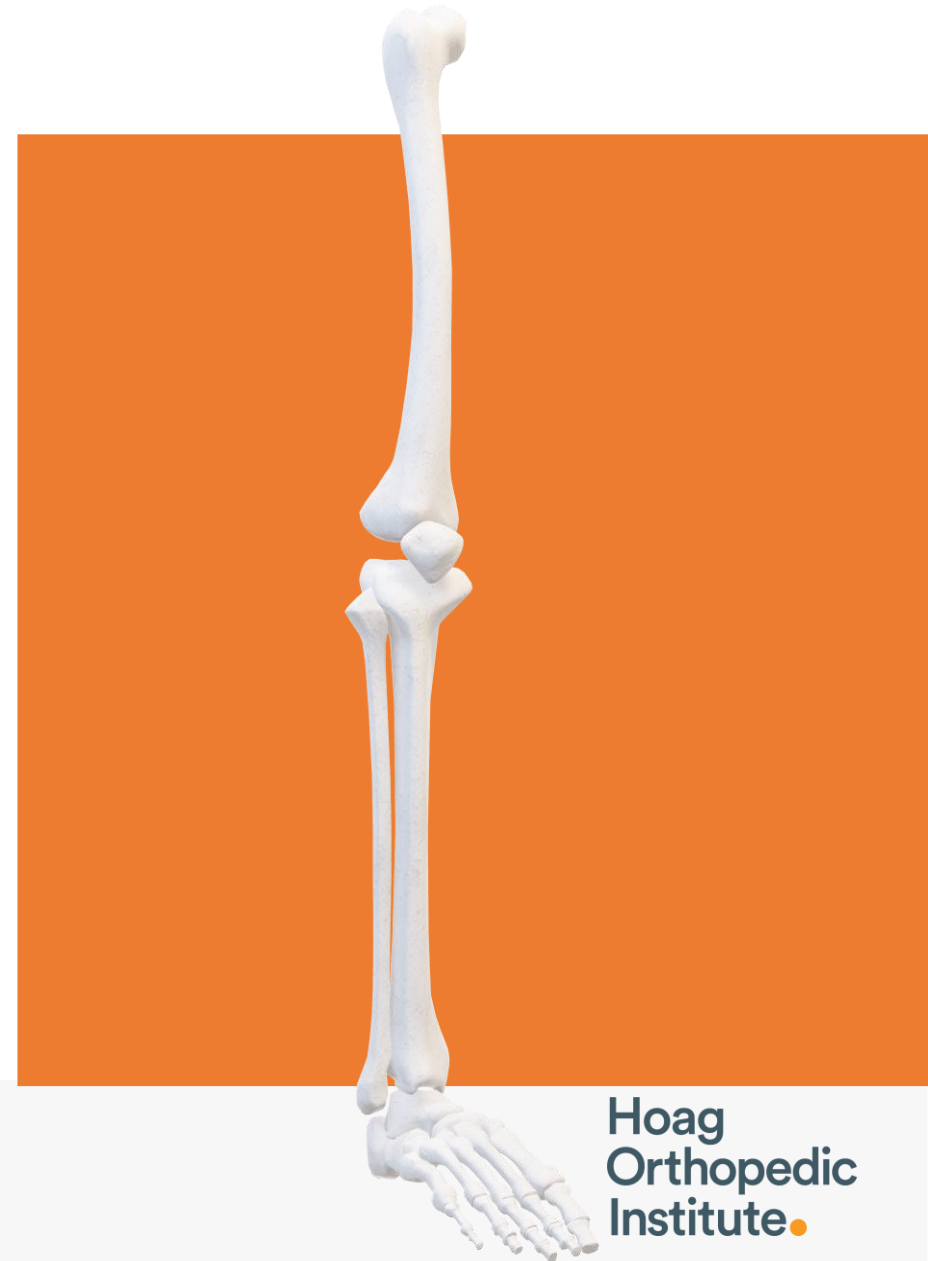
- Liquid that lubricates the joint and keeps it moving smoothly



# The Knee

## Knee Joint

- Hinge joint made up of the:
  - Femur (thigh bone)
  - Tibia (shin bone)
  - Patella (kneecap)



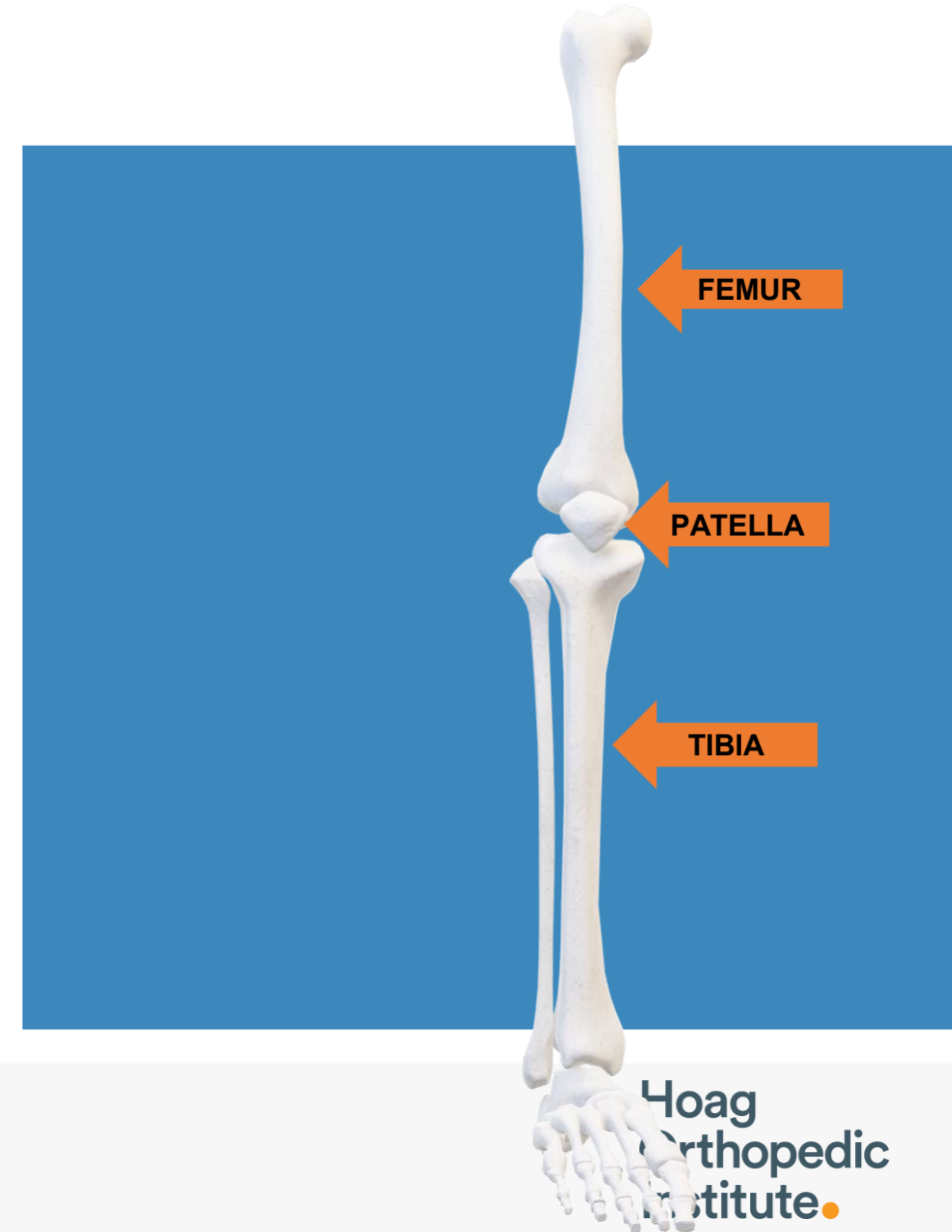
# Knee Replacement

The end surface of the femur and tibia are replaced with components

- Femoral Component
- Tibial Component

A plastic liner is inserted between the femur and tibia to reduce wear.

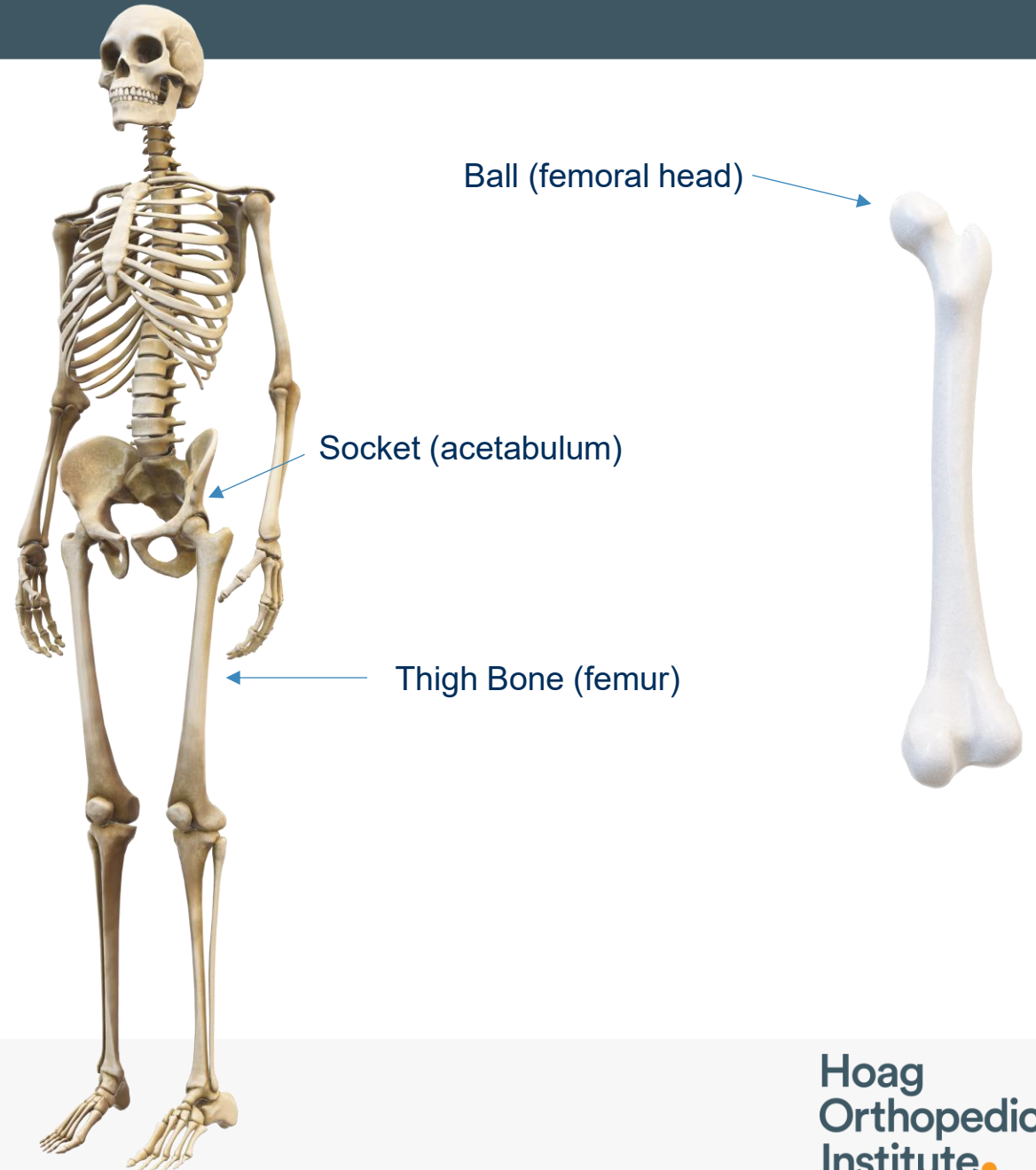
The patella is resurfaced, and a button is added.



# The Hip

## Hip Joint

- Ball and socket joint made up of the:
  - Head of the femur (the “ball”)
  - Acetabulum (the “socket”)



# Hip Replacement

The whole joint is removed and replaced with an artificial joint.

Components include:

- Acetabular component
- Plastic liner
- Femoral head
- Femoral stem



# Pre-Surgery: Preparation

Review your surgery forms

Complete the requirements outlined in your surgery packet / instructions

- Return required information to your surgeon's office at least one week before your surgery, preferably two

Your **surgeon** has determined you need surgery.

Your **primary care physician** will determine if you are healthy enough to have surgery by doing a physical assessment and reviewing labs, EKG, and any other studies ordered.

- Make appointments to see your PCP and to get your labs and EKG done

# Pre-Surgery: Plan Your Recovery

Start planning your recovery at home now.

Determine who will help you

- Spouse, family member, friend

Determine where you will recover

- Your own home, at a family member or friend's home

Plan to have your caregiver be available to help for the first 48-72 hours at home.



# Pre-Surgery: Plan Your Recovery

## Clothing, the day of surgery and during your recovery.

- Wear loose, comfortable clothes that are easy to get on and off
  - Shorts and dresses are often easier than long pants to get on and off
- Choose non-skid, closed toe and back slippers or shoes



# Pre-Surgery: Home Preparation



Your “safety zone” is the **area between your shoulders and hips**. Keeping commonly used items in this area prevents you having to bend and reach thus reducing the risk of falls.

## Arrange

Arrange frequently used items in your “safety zone”

## Remove

Remove loose throw rugs

## Clear

Clear hallways for use of walker

## Make

Make plans for your pets

## Use

Use night lights

## Have

Have charging cables nearby

# Pre-Surgery: Equipment

## Walkers

- Walkers are used after surgery (think safety)
- You will receive your walker at the surgery center
- If you already have a walker, please bring it to the surgery center for fitting
  - This will be done after your surgery

## A few things to remember about fit

- When your arms are relaxed at your sides:
  - The crease on the inside of your wrist should line up with the walker grips
- When holding onto the walker grips:
  - Relax your shoulders
  - Your elbows will be slightly bent



# Pre-Surgery: Durable Medical Equipment (DME)



**3:1 Commode**



**Toilet safety rails**



**Toilet riser**



**Shower Chair**

## DME

- Think about what you might help you
- Check with your insurance prior to surgery to see what DME is covered
  - 3:1 commodes, toilet risers, shower chairs, and toilet safety rails are rarely covered
  - When purchasing an item that helps you from a sit to stand position, think arms

# Pre-Surgery: Practice Stairs

## Stairs:

- Patients can use stairs the day of surgery
- If you have the option, plan to spend your first night or few downstairs
- Practice before your surgery



# Pre-Surgery: Practice Getting in and out of a Car

## Before getting into a car:

- Have someone move the seat as far back as it will go
- Recline the back of the seat if possible
- Remember your precautions

## Getting into a car:

- Back up to the open doorway of the car
- Hold onto the side of the car or dashboard and the walker for support
- Lower yourself slowly onto the seat. Watch your head
- Bringing your legs into the car by:
  - Sliding back into the center of the seat so you are not sitting on the edge
  - Lifting your legs one at a time into the car
- Keep your car seat as high as possible

## Getting out of a car:

- To bring your legs out of the car
  - Slide to the edge of the seat
  - Lift your legs out of the car one at a time
- To stand up
  - Make sure your feet are on the ground
  - Place the walker as close as possible
  - Use the car seat or jam (a car cane can help) and the crossbar of the walker to stand (never try to stand with just the walker, it could tip over)
  - Raise yourself slowly



# Pre-Surgery: Optimizing Nutrition Prior to and After Your Surgery

- Focus on high quality proteins
  - Protein goals vary based on individual needs
  - Goal = 1 to 1.2 grams of protein X kilogram of body weight
  - You may need to go higher after surgery
- Stock up on a wide variety of colorful fruits and vegetables
  - Dark leafy vegetable contain loads of vitamins and minerals including vitamin C, K, and magnesium which are great for repairing muscles, bones, and cartilage
- Include whole grains
- Cut back on junk food
- Avoid crash dieting
- Plan ahead by stocking up on health foods and beverages



# Pre-Surgery: Hydration, The Day of Surgery

## THE DAY OF SURGERY:

- You may drink clear liquids up to 2 hours before your scheduled surgery time if you qualify.
- The pre-surgery hydration guidelines should be followed unless otherwise instructed by your surgeon or surgery center staff.

## What other allowed CLEAR FLUIDS can I drink the day of surgery?

Please follow instructions carefully or your surgery may be canceled.

All clear liquids must be stopped 2 hours prior to surgery.

Allowed	DO NOT CONSUME
Water	Milk or Dairy Products
Gatorade or equivalent carb containing sports drinks (i.e. Powerade)	Citrus Juices
Ensure® Pre-Surgery Clear Nutrition Drink	Prune Juice
Apple or Cranberry Juice (no pulp)	Juices with Pulp
Plain Coffee or Black Tea. No milk or creamer.	Alcoholic Beverages

**DO NOT consume liquids on the day of surgery if you have:** Hiatal hernia, History of esophageal surgery, GI dysmotility (including GERD, GLP-1 use) or obstruction, Diabetes, History of difficult intubation, Chronic opioid use, Neurologic disease, Obesity/BMI > 35

# Pre-Surgery: Carbohydrate Loading Instructions Before Surgery

## The Night Before Surgery

**Drink one of these options before your surgery:**

- 2 Bottles Ensure® Pre-Surgery Carbohydrate Clear Nutrition Drink

**OR**

- 16 fluid ounces (2 cups) Gatorade or equivalent carb containing sports drink
  - Do NOT eat any solid food after midnight unless otherwise instructed

## The Day of Surgery

**Drink one of these prior to leaving the house to go to the hospital (approximately 2-3 hours before your surgery):**

- 1 Bottle Ensure® Pre-Surgery Carbohydrate Clear Nutrition Drink

**OR**

- 16 fluid ounces (2 cups) Gatorade or equivalent carb containing sports drink

\* Must meet criteria

# Pre-Surgery: Optimization

<b>Stop Smoking</b>	Need Help? <a href="http://Lung.org">Lung.org</a>
<b>Stop Alcohol</b>	Stop alcohol before your surgery
<b>No Dental Work</b>	No dental work 2 weeks before surgery <ul style="list-style-type: none"><li>• Discuss with your surgeon and dentist the guidelines for antibiotics with all future dental care</li></ul>
<b>No Manicures or Pedicures</b>	No professional manicure/pedicure 2 weeks before surgery
<b>No Shaving</b>	No shaving any body hair below the neck the 3 days prior to your surgery <ul style="list-style-type: none"><li>• Facial shaving is permitted before surgery</li></ul>

# Pre-Surgery: Stopping Medications that Thin the Blood

## PRESCRIPTION blood thinners

- Consult your prescribing physician & surgeon for when to **stop**
- Your surgeons will tell you when it can be resumed

## Prescription Blood Thinner Examples:

- Coumadin (Warfarin)
- Eliquis (Apixaban)
- Lovenox (Enoxaparin)
- Plavix (Clopidogrel)
- Pradaxa (Dabigatran)
- Xarelto (Rivaroxaban)
- Aspirin (\*an NSAID sometimes prescribed to “thin” the blood)

## NSAIDs

- **Stop 7 days prior** to surgery
- You may not restart them until okayed by your surgeon

## NSAID Examples:

- Aspirin -Bufferin, Ecotrin, Aspercreme...
- Aspirin containing drugs
- Ibuprofen – Advil, Motrin, Nuprin
- Naproxen – Aleve
- Voltaren – diclofenac
- Mobic – meloxicam
- Celebrex – celecoxib
- Indomethacin

# Pre-Surgery: More Medications

**Hormone Replacement:** Consult your surgeon for when to **stop and restart**

## GLP-1 agonist Medications:

- If you are taking a GLP-1 agonist medication for diabetes or weight loss, talk to your surgeon
- These medications needs to be stopped before surgery

## Examples:

- Dulaglutide (Trulicity)
- Exenatide extended release (Bydureon bcise)
- Exenatide (Byetta)
- Semaglutide (Ozempic)
- Liraglutide (Victoza, Saxenda)



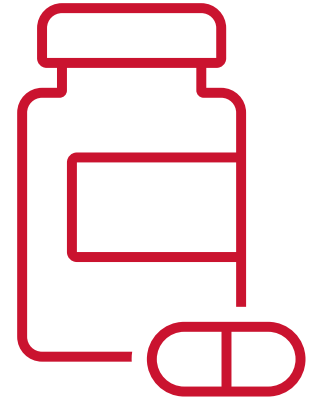
# Pre-Surgery: Stopping Supplements

**Stop** taking herbal and dietary supplements 14 days before surgery

**Herbal supplements** are derived from different parts of plant.

**Supplements** come in many forms including:

- Powders, tablets, capsules, teas, tinctures, oils, lotions, or ointments



**Examples of herbal & dietary supplements:**

- Echinacea, ephedra, feverfew, green tea, garlic, ginkgo biloba, ginseng, ginger, golden seal, kava, licorice, saw palmetto, Valeria root, Saint John's wort, turmeric, flaxseed, Omega-3, fish oil, vitamin E

# Pre-Surgery: Infection Prevention

Your surgeon will provide you with a kit that includes CHG and nasal antiseptic.

The kit will include directions for use.

- Start using your CHG and nasal antiseptic 5 days before your surgery

**CHG** is both a soap and antiseptic that kills germs on contact

- **CHG** safely binds to the skin and can continue killing germs for up to 24 hours
- **CHG** has a cumulative effect, so the protection against germs increases with repeated use

**Nasal antiseptic**

- **Nasal antiseptic** has been shown to inhibit the growth of bacteria in the nose over a period of up to 12 hours in studies

**Day of Surgery:** Do not apply lotion, creams, powder, or makeup on the day of surgery

# Pre-Surgery: Infection Prevention

						
<p>Wash your hair with your normal shampoo and rinse it well.</p> <p>Wash your face and private areas with regular soap and water only.</p>	<p>Rinse your body well with warm water.</p> <p>Turn off the water so the CHG soap won't rinse off too soon.</p>	<p>Apply CHG directly onto the provided mitten and wash gently from the neck down (avoid eyes, ears, mouth, or genitals).</p> <p>Using the sand timer, leave the CHG on for 2 minutes.</p>	<p>Turn on the water and rinse very well with warm water.</p> <p><b>DO NOT USE REGULAR SOAP AFTER USING AND RINSING CHG PRODUCT.</b></p>	<p>Dry your skin with clean towel and dress with freshly laundered clothes after each shower.</p> <p>Use only compatible moisturizers or lotions.</p>	<p>Use clean bed linens (bedding) after the first night's shower and the night before surgery.</p>	<p>No shaving any body hair below the neck the 3 days prior to your surgery</p>

# Day of Surgery: Pre-Op

- Consents reviewed and signed
- An intravenous line will be placed
- You will see your surgeon
- You will meet your Anesthesiologist and discuss anesthesia
  - Most patients have spinal anesthesia
    - Patients are asleep with spinal anesthesia



# Day of Surgery: Operating Room

- Anesthetic medication will be given
- You will be positioned on a table that is specially designed for your surgery
- Your surgical area will be scrubbed with surgical prep



# Post Anesthesia Care Unit (PACU)

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You will “wake up” in the PACU (recovery room)

Your nurse:

- Assesses your medical condition
- Provides pain management as needed
- Teaches you to get in and out of bed
- Instructs you on how to walk with a walker

Before discharge:

- X-rays are taken of your new joint
- You will urinate



# After Discharge: Physical Therapy

## Physical therapy after surgery

- Arrangements are made by the surgeon office for **home health** physical therapy, **if** your surgeon determines it is needed
  - This is therapy that takes place in your home
- Your surgeon will give you a prescription for **outpatient** physical therapy
  - This is therapy that takes place at a therapy office



# At Home: Preventing Pain

<b>Oral Medications</b>	Take as prescribed. Opioids are ordered as needed. <ul style="list-style-type: none"><li>• Use the minimal dose of the opioid to get the maximum effect.</li></ul>
<b>Cold Therapy</b>	Use ice packs or a cold therapy ice machine. Never apply ice therapy directly to the skin. Have a protective barrier such as a towel. Check your skin often. Allow time for your skin to warm to its normal temperature between applications.
<b>Elevation</b>	Think “toes above the nose.” Elevate the affected extremity above the level of the heart if possible. Elevation reduces swelling which in turn reduces pain. *Total knee patients, leave your leg straight when elevating.
<b>Distraction</b>	Distract yourself with relaxing activities you can do while sitting or laying down. <ul style="list-style-type: none"><li>•TV, electronics, reading</li></ul>



# At Home: Elevation

Elevate your surgical extremity higher than heart level in increments of 30 minutes 2-3 times a day.

If increased swelling is noted in ankle or foot, it is time to spend more time with the surgical leg elevated “toes about the nose”.



Remember to move / wiggle around when lying down and sitting. Pump your feet often. This will help to keep you comfortable.

# Home: Constipation Prevention

## Have a Plan

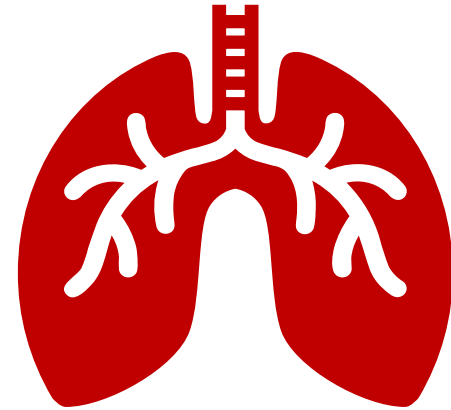
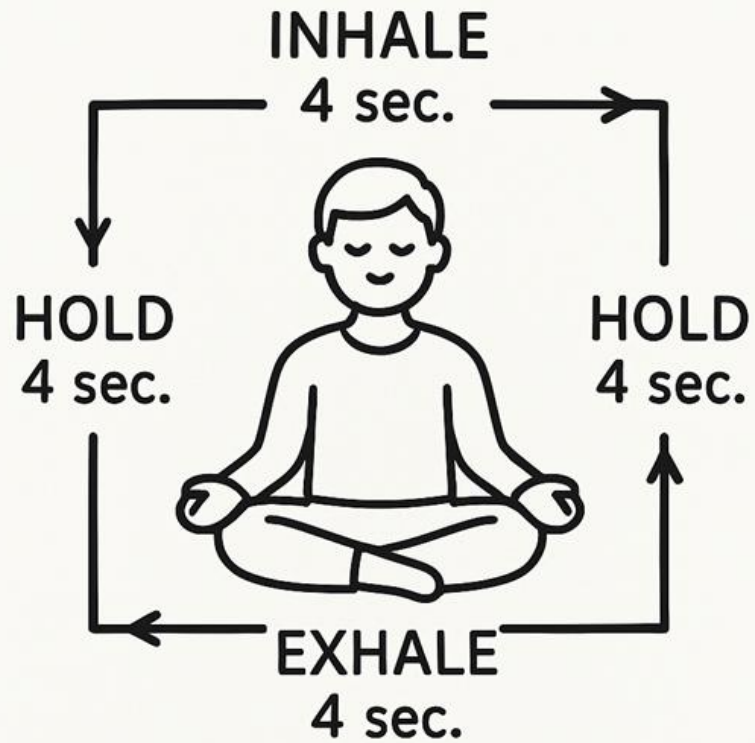
Establish a plan with your surgeon before surgery

- Pick up medication to prevent constipation before surgery
  - Use a laxative like Miralax until you are regular and off opioids
- Drink 8-10 cups of water a day
- Increase your fiber intake
- Get Moving – take short, frequent walks



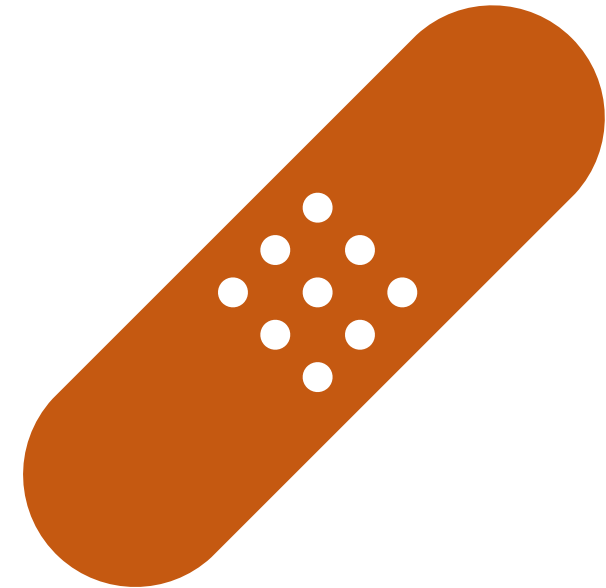
# At Home: Deep Breathing Exercises

## BOX BREATHING



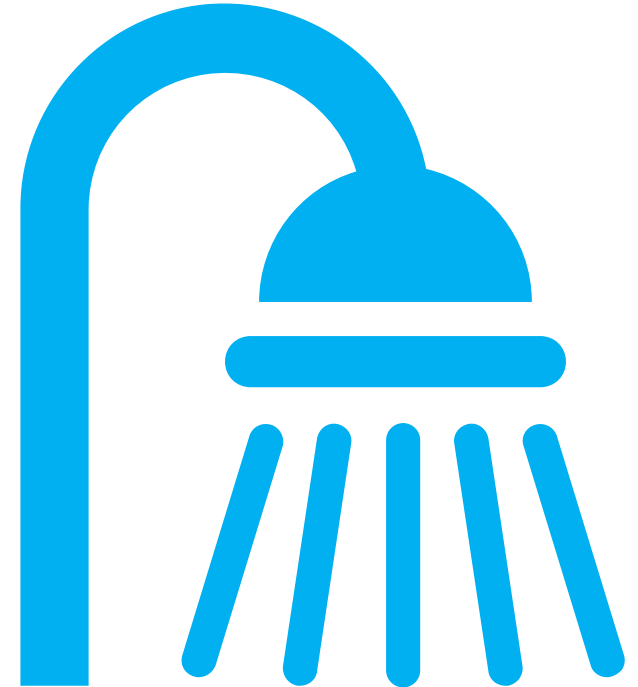
# At Home: Your Dressing

Instructions for dressing care will be given at discharge



# Showering

- You may shower after surgery
- Your dressing is showerproof
- Do not submerge the incision until your surgeon gives the ok
  - No baths, swimming, or spas



# At Home: DVT Prevention

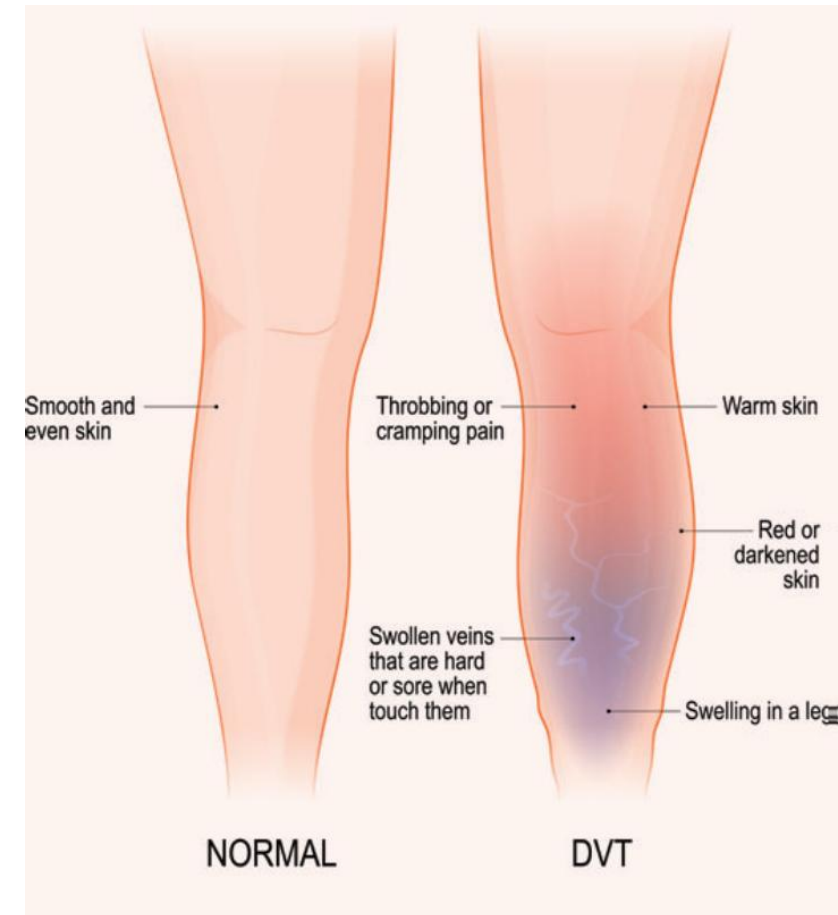
A DVT (deep vein thrombosis): rare surgical complication. It is important to know the signs.

Let your surgeon know if you:

- Have new swelling in one leg not related to an injury
- Your calf (back of lower leg) is tender or painful when you push on it
- Your calf feels warm or hot to touch compared to the other leg

Prevent Blood Clots:

- Get moving
  - Take short, frequent walks
  - Perform ankle pumps when sitting or lying down
    - at least 10 times an hour



# At Home: DVT Prevention, Medication

- You will be placed on medication after surgery to prevent blood clots
- Know your medication
- Your blood thinner must be taken as prescribed
- Aspirin is commonly prescribed to prevent blood clots
  - If purchasing over the counter, make sure to select the coated aspirin
  - Take aspirin with food or just after a meal to protect your stomach



# Home: Recovery

## Expect:

### Pain

- Take it easy the first two weeks
- Use your pain medications as prescribed

### Swelling

- Elevate
- Ice

### Bruising

- Bruising / discoloration is normal
- Bruising can occur on the whole leg after total knee surgery

## Be Aware:

- Dizziness / Lightheadedness can occur
- Go slow when standing up
- Use your walker



# At Home: When to Call the Surgeon

## Call your surgeon if you have:

- Questions

## Must call if:

- Severe pain that is not controlled with pain medicine or is getting worse
- Bleeding, drainage from the incision
- Signs of infection:
  - Fever over 102 degrees Fahrenheit
  - Redness, swelling, warmth around the incision or drainage of pus
  - Severe vomiting or cannot keep food down

Call 911 right away if you have chest pain or shortness of breath

**Thank You**



**Getting You Back to You**

**Hoag  
Orthopedic  
Institute.**

# Hoag Orthopedic Institute

The information in this presentation is designed as a general guide, while the information provided by your physician is specific to your individual needs.

