



Spine Surgery Orientation

Hoag Orthopedic Institute

Welcome to HOI

As you prepare for spine surgery, you will probably have a number of questions. This orientation is designed to answer some of those questions and guide you from pre-surgical procedures through the post-surgical healing process.

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



Getting You Back To You

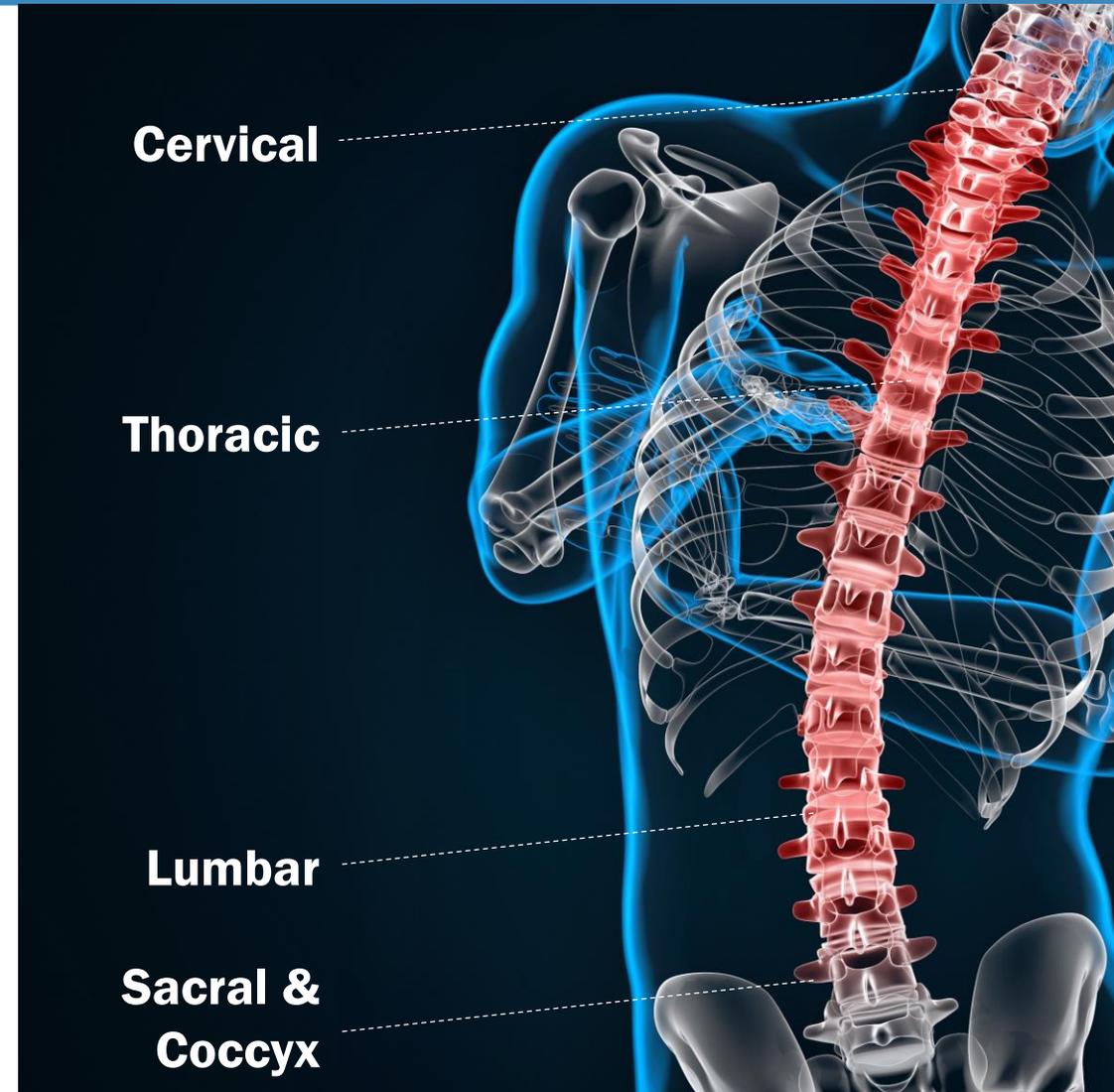


Understanding How the Spine Works

A healthy spine provides support for the body and protection for the spinal cord.

The spine is composed of 24 vertebrae and 23 intervertebral discs held together by ligaments and muscles.

There are four regions of the spinal column: the cervical (C1-C7), the thoracic (T1-T12), the lumbar (L1-L5), and the sacral and coccyx.

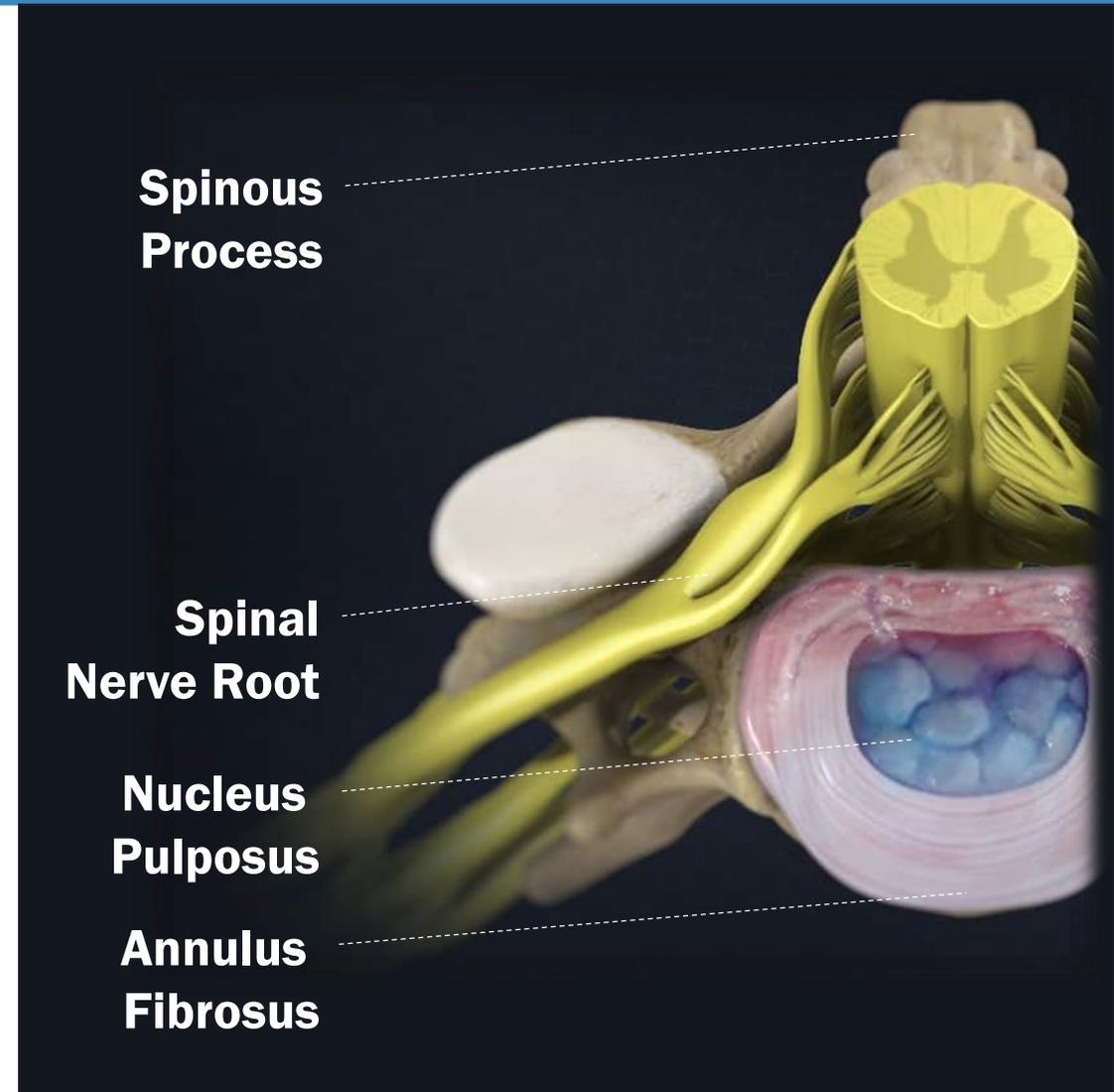


Anatomy of a Normal Spinal Disc

Annulus fibrosus is a tough circular exterior of the vertebral disc that surrounds the soft core, also known as the **nucleus pulposus**.

Spinal nerve roots are fiber bundles that come off the spinal cord. These nerves control your body's movement and carry sensory information from the body to your brain.

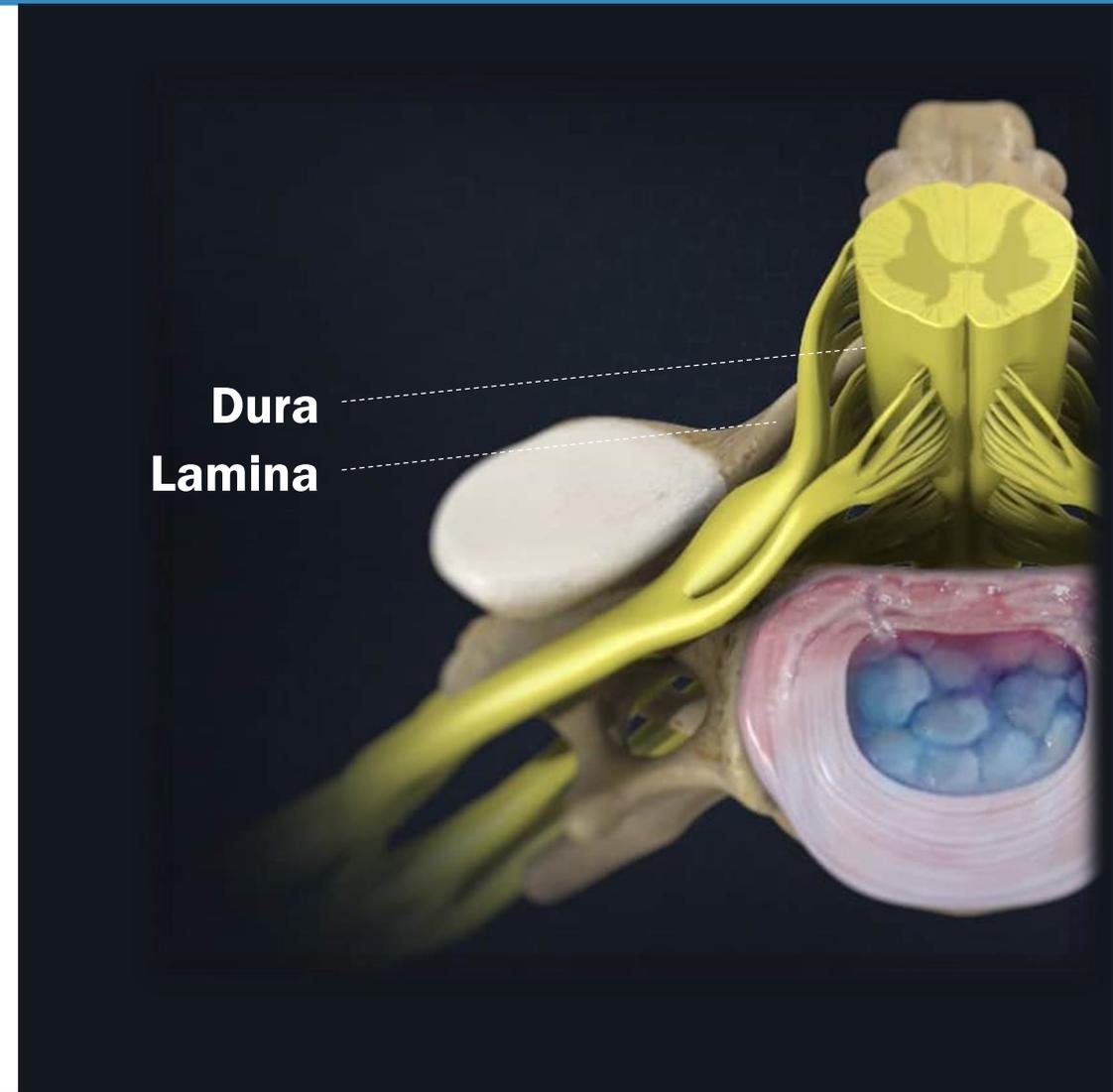
Spinous processes allow for muscles and ligaments to attach to the spinal cord.



Anatomy of a Normal Spinal Disc

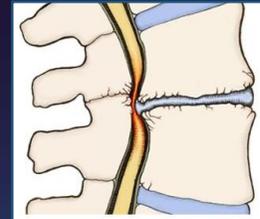
The **dura** is the outermost membrane that protects the central nervous system.

The **lamina** is a posterior arch of the vertebral bone lying between the spinous process and makes up the posterior wall of the bony spinal canal.

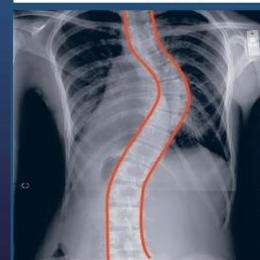


Common Spine Diagnosis

- **Spinal Stenosis** occurs when one or more body openings (foramina) within the spine begin to narrow and reduce space for the nerves.
- **Degenerative disc disease** occurs when one or more of the discs between the vertebrae wear down.
- **Spondylolisthesis** is a displacement or slippage of one spinal vertebrae compared to another.
- **Scoliosis** is a sideways curvature of the spine.



Lumbar Spinal Stenosis



When to Consider Surgery

Surgery may be considered when:

- **all other conservative measures have failed.**
- **daily activities become limited and the pain is not managed.**
- **there is change in the normal curvature or openings of the canals in the spine.**
- **there is disc degeneration, tears or bulging.**
- **there is a slippage of the one vertebrae compared to the other.**



Ask Your Surgeon: Risks and Potential Complications for Surgery

Discuss with your surgeon the possible risk factors and complications related to the procedure:

- ✓ **Complications from anesthesia**
- ✓ **Blood clots**
- ✓ **Infection**
- ✓ **Dislocation**
- ✓ **Loosening of implants**
- ✓ **Injury to nerves**
- ✓ **Fracture of the bone during implantation**



Types of Cervical Spine Surgeries

Cervical Discectomy and Fusion: surgical procedure to remove a degenerative or herniated disc from the neck. After the damaged disc is removed the bones are fused together.

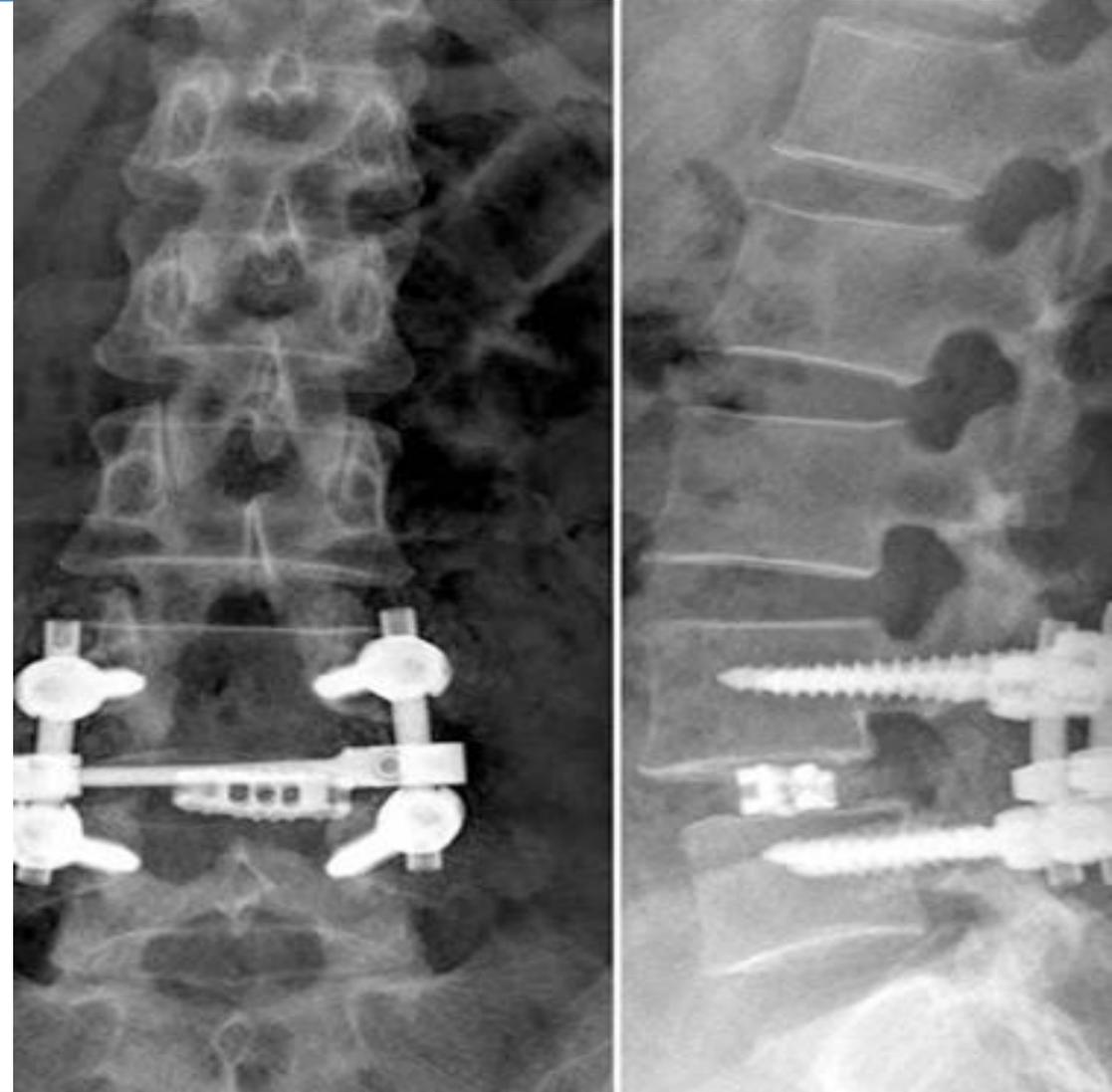
Artificial Disc Replacement: surgical procedure in which degenerated discs are replaced with artificial disc implants.



Types of Lumbar Spine Surgeries

Lumbar Fusion: surgery to join or fuse two or more vertebrae in the back. There are multiple approaches: anterior, posterior and lateral. Fusion can help treat the symptoms of compressed nerve roots and degenerative disc disease.

Laminectomy: surgical procedure that removes a portion of the vertebral bone called the lamina, which is the roof of the spinal canal.

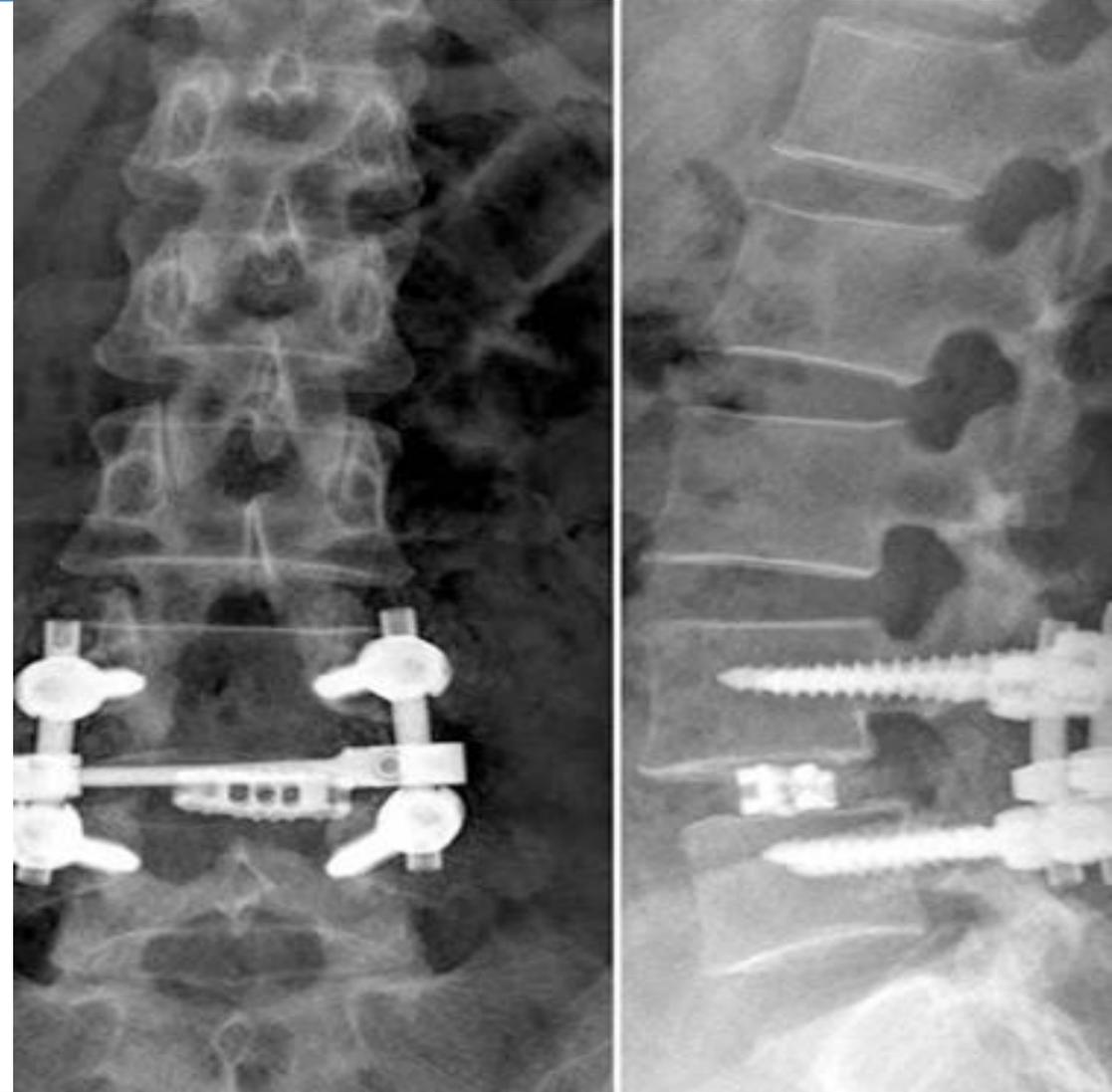


Types of Lumbar Spine Surgeries

Coflex: insertion of a single-piece titanium implant into the spine to treat spinal stenosis.

Kyphoplasty: surgery performed to stabilize the spinal bones and restore lost vertebral bony height.

Microdisectomy: surgery typically performed for a herniated disc to relieve pressure on a spinal nerve root by removing the material causing the pain.



Pre-Surgery Preparation

- **Pre-operative screening:** A Clerical Assistant will contact you approximately four weeks prior to surgery to schedule your pre-surgery diagnostic tests (**EKG, laboratory tests, urinalysis, possible chest x-ray**). Some testing will be done outside the hospital where insurance dictates.
- **Complete and return the pre-op forms.**
- **Medical or Specialist Clearance to optimize your outcome from surgery (**cardiologist, pulmonologist, endocrinologist**).** Certain medications, herbs, blood thinners, vitamins and anti-inflammatories may be stopped.
- **A Financial Counselor will call to start the pre-admit process and review your insurance coverage, benefits, and upfront costs or payments directly related to your hospital stay (**please bring photo ID and insurance card on day of surgery**).**

Possible Medications That Might be Stopped Prior to Surgery

Your primary care physician, surgeon or anesthesiologist will advise you of medications to discontinue and when to stop taking them.

- **Aspirin medications:** Bufferin, Ecotrin, Aspecreme.....
- **Anti-inflammatory medications:** Motrin, Advil, ibuprofen, NSAIDS, Aleve, Celebrex, Meloxicam
- **Anti-clotting medications:** Coumadin, Plavix, Xarelto, Eliquis, Aspirin (for medical treatment).....
- **Dietary supplements and vitamins**
- **Hormone Replacement Therapy medications**

Examples of medications that can be taken include: Tylenol, Norco, Percocet, Tramadol, Oxycodone

Pre-Surgery Preparation

Home Medications: A Nurse Navigator will contact you approximately one week prior to your surgery date and will review your history questionnaire and home medication list.

The navigator **MIGHT** advise you to bring some of your home medications that are not carried in our pharmacy to the hospital on day of surgery and give it to the pre-op nurse.

The navigator **WILL** advise you to bring eye drops and inhalers. Otherwise, **DO NOT** bring any medications from home.



COVID-19 Testing

Please obtain a signed lab order from your surgeon's office to complete your COVID test (typically given at your pre-operative visit).

COVID testing should be completed **5 DAYS prior to the surgery. Please do not use the provided nasal antiseptic (Nozin) from your surgeons office **ON THE DAY OF TESTING** as it will interfere with your COVID results.**



COVID-19 Testing

Reminder Please quarantine after testing until the day of surgery.

Where you can be tested is dictated by your insurance. If you have an option to have it at a Hoag Urgent Care, please use the link below to find a location & schedule an appointment to be tested:

<https://hoagurgentcare.com/locations/>

***Please go for testing before 12pm at any location.**



Plan Your Recovery Time

Plan your recovery period before going into the hospital and consider the support system you will have when you return home.

Plan to have a caregiver (spouse, family members, friends) who will be able to help for the first 48-72 hours at home. **Arrange for additional help at home with cooking, laundry, housekeeping, shopping, errands, pet care.**

Ask your surgeon about after surgery activities (when to return to work, traveling, driving, dental care)



Your Recovery Plan

It is best for you to go home for the following reasons:

- ✓ **Less chance of infection**
- ✓ **More active at home**
- ✓ **More comfortable**
- ✓ **Familiar home setting**
- ✓ **Privacy**
- ✓ **Eat the food you are used to**
- ✓ **Free to establish your own routine**



Home Preparation

Clear hallways for use of possible walker.

Remove loose throw rugs.

Chair or sofa with arm rest for support

Arrange for caregiver for first 1-2 weeks.

Make arrangements for pets if necessary.

Consider purchasing an elevated seat for the toilet if needed for they surgery you are having.



Home Preparation

Arrange frequently used items: toiletries, clothes, dishes at counter level for easy access.

Be aware of uneven surface outside and inside your home.

Extension cords out of the way

Handheld shower and shower bench is helpful but not necessary.

Adequate lighting/night lights

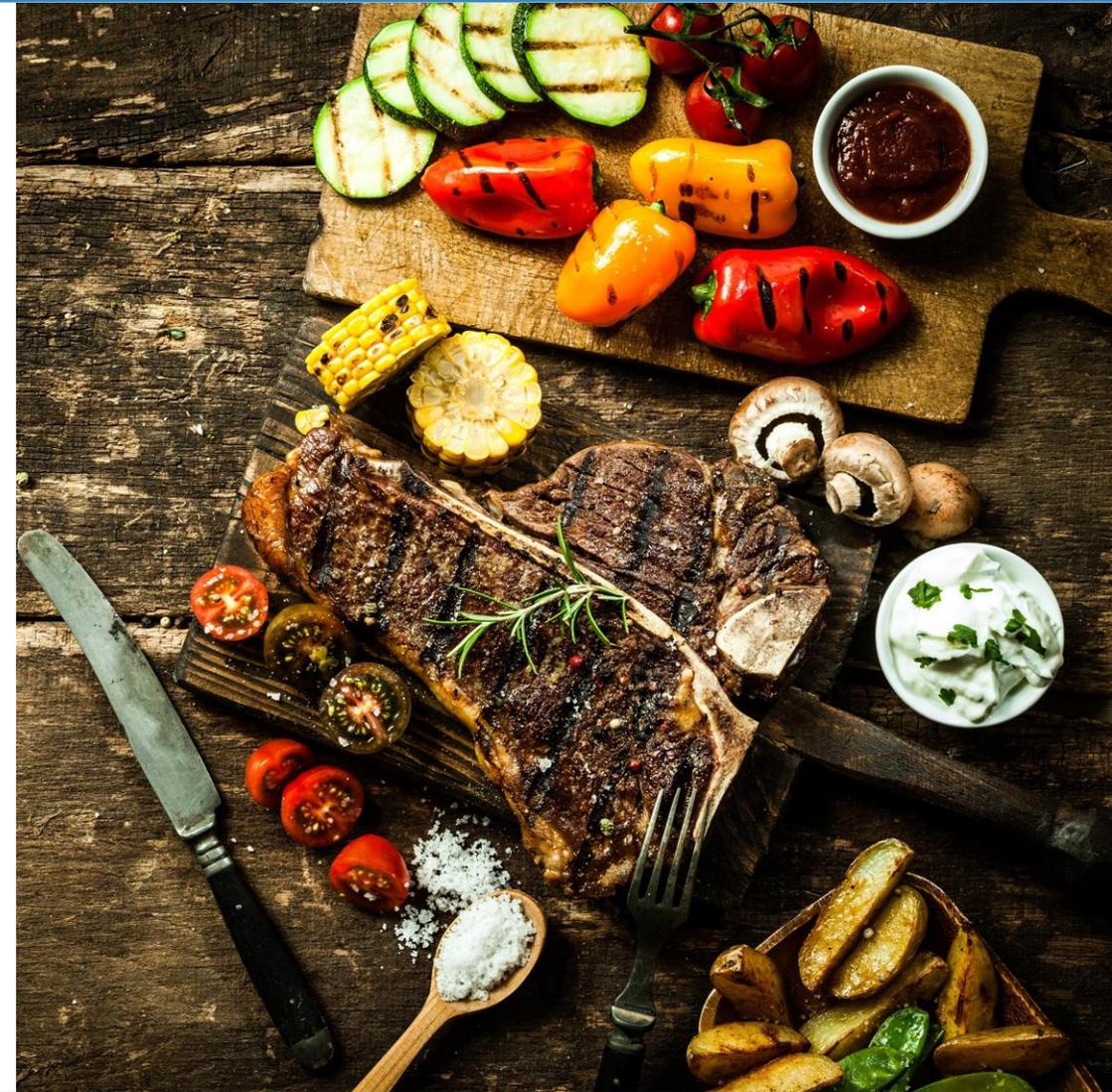


Nutrition Prior to and After Your Surgery

Begin increasing protein intake a few weeks before surgery to build up strength and to help with healing post operatively.

- ✓ **Focus on high quality proteins such as poultry, lean beef, eggs, nuts, seeds, fish**
- ✓ **Consider an oral nutrition supplement/drink for additional protein intake**

A registered dietitian will be available post-operatively to address any questions or concerns



Prior to Surgery

You will receive instructions from your surgeon's office.

No eating or drinking per your surgeon including chewing gum, smoking or hard candy. It is okay to brush your teeth.

You will be given **Chlorhexidine soap and **Nasal antiseptic** to start using five days prior to surgery.**

Do not apply lotion, creams, powder, or makeup on day of surgery.

Your arrival time to the hospital will be **given to you by your surgeon's office.**

Call the pre-op department at 949/727-5027 if you will not make your surgery time due to unforeseen circumstances.

BE ON TIME!

Infection Prevention: What Do We Do to Protect You?



What Is Preoperative Universal Decolonization

Chlorhexidine gluconate (CHG) is both a soap and an 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 showed to inhibit the growth of bacteria in the nose over a period of up to 12 hours in studies.



Take Everyday Preventive Actions to Stop the Spread of Germs

Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand sanitizer.

Try to avoid close contact with sick people.

Clean and disinfect surfaces and objects that may be contaminated with germs like the flu.

Talk to your primary care physician if pneumococcal vaccination is indicated for you.



Take Everyday Preventive Actions to Stop the Spread of Germs

Notify your surgeon if you are sick with cold or flu-like symptoms, have open wounds, cuts, or rashes several day before your surgery.

While sick, limit contact with others as much as possible to keep from infecting them.

Avoid touching your eyes, nose and mouth. Germs spread this way.

Avoid gardening and pruning several days prior to your surgery to prevent cuts, scratches and rashes.



Night Before Surgery

Review instructions provided by the surgeon's office. Confirm arrival time for surgery.

Have a light dinner.

Have a main meal for lunch.

Use **chlorhexidine soap and nasal sanitizer as directed.**

Change bedding or clean sheets.

Wear clean nightwear.

Keep pets off the bed.



What to Bring to the Hospital

Closed toed shoes, orthotics, inserts, or special shoes. Loose fitting clothing (shorts, t-shirts, PJs, house coat)

Button front shirts for Cervical Spine Surgery

Hygiene items, hearing aides, glasses, dentures

C-PAP mask and machine

Cell phone, tablet, laptop, ear buds, charger.

DO NOT BRING VALUABLES (jewelry, cash, credit cards, watch, etc.)



Day of Surgery: Arrival to the Hospital

Park in the parking spaces across from Hoag Orthopedic Institute entrance.

Check in at the registration office located to the left of the lobby entrance.



Pre-Operative Room

You will be escorted to pre-op while your family remains in waiting area.

You will change into a patient gown.

A pre-operative nurse will then start your IV and prep you for surgery. The nurse will review the operative consent forms with you and have you sign any remaining paperwork. (HINT: BRING YOUR READING GLASSES)

You will meet your anesthesiologist to discuss anesthesia plan and pain management.



Pre-Operative Room

Once you are prepared for surgery, one family member may join you until you are taken to the operating room.

A pre-op nurse will be asking your family/support person for contact information.

It is highly encouraged for your family/friend to keep your valuables (**cell phone, laptop**) while you're in the operating room. They can bring your valuables up to the patient room after you arrive from the recovery unit.



Operating Room

Anesthetic medication will be given.

If your surgical team feels it is necessary, a urinary catheter may be placed in your bladder.

You will be positioned on a bed or table that is specially designed for spine surgery.

Your cervical or lumbar spine area will be scrubbed with surgical prep.



Post Anesthesia Care Unit (PACU)

The PACU is staffed by trained nurses who specifically care for patients coming out of anesthesia. Our nurses will ensure you are kept safe and appropriately cared for while the effects of the anesthesia wear off.

The PACU nurse will continuously monitor your temperature, pulse, respiration, blood pressure, pain and assess your hip or knee dressing. Circulation and nerve function will be checked by asking you to push down with both feet against the nurse's hands and to flex your feet toward your head.



Blood Glucose Testing by Finger Stick

Depending on your surgical procedure nurses may routinely check blood sugar levels preoperative and postoperative.

Elevated blood glucose can impair incision healing and increase the risk of infection.



Recovery Unit

You will stay in the recovery room until stable & appropriate to be transferred to the nursing unit.

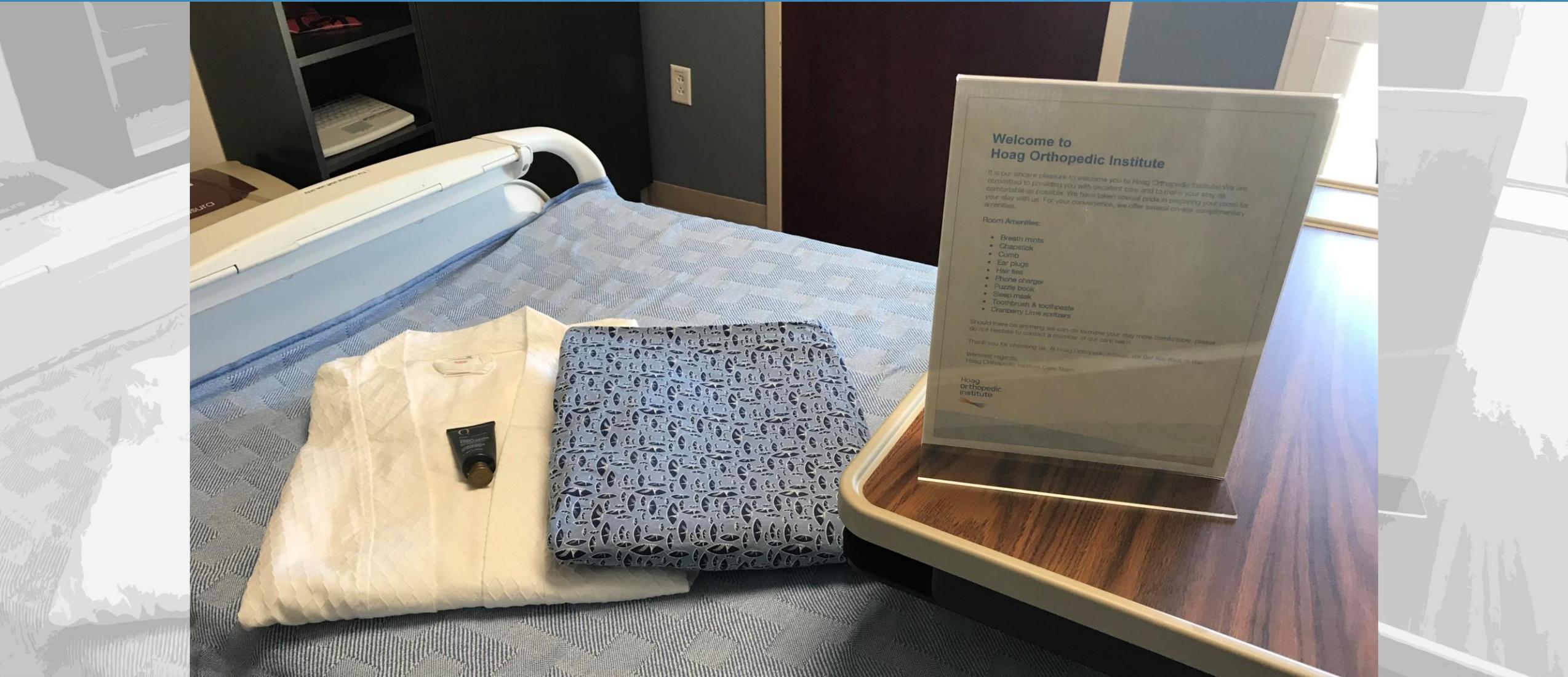
When you are ready to leave the recovery room, you will be transferred to the nursing unit by gurney or bed.

No visitors allowed.

Your surgeon will contact your family or designated person to discuss your surgery.



Your Hospital Stay Experience



Welcome to Hoag Orthopedic Institute

It is our sincere pleasure to welcome you to Hoag Orthopedic Institute! We are committed to providing you with excellent care and to make your stay as comfortable as possible. We have taken special pride in preparing your room for your stay with us. For your convenience, we offer several on-site complimentary amenities.

Room Amenities:

- Breath mints
- Crapstick
- Comb
- Ear plugs
- Hair ties
- Phone charger
- Puzzle book
- Sleep mask
- Toothbrush & toothpaste
- Cranberry Lime apritzers

Should there be anything we can do to make your stay more comfortable, please do not hesitate to contact a member of our care team.

Thank you for choosing us. At Hoag Orthopedic Institute, We Care You Start at the

We need regards,
Hoag Orthopedic Institute Care Team

Hoag
Orthopedic
Institute

Your Hospital Stay Experience



Nausea & Anxiety
Spritz of Peppermint or Lavender
Essential Oils



Scented Washcloths
Warm and Wet Scented Washcloths



Calming Music & Wallpaper
Therapeutic Environments to Help Reduce Stress,
Accelerate Recovery and Lessen Pain



Meals

You may start with ice chips and advance to clear fluids (juices, Jell-O or broth when the nurse deems it appropriate. Your diet will be advanced as ordered and upon nurse's assessment.

Let us know if you need a special diet (vegetarian, vegan, Keto, lactose, etc.). A Registered Dietitian is available to assist with any diet modifications to meet your nutritional needs.

You may not have much of an appetite after surgery.

Cervical Spine: RN will assess your ability to swallow each day.

Time For Physical Therapy



Physical Therapy Recommendations

Please bring in any brace, orthotic device or special footwear that you may use for walking.

If you are borrowing a walker or have one from a previous procedure, have it brought to the hospital. Our staff will fit it correctly to you.

A family member/caregiver is to participate in at least one physical therapy session.

Begin performing the pre-surgical exercises prior to surgery if possible:

- ✓ **Post-surgical exercises**

Occupational Therapy

Occupational therapy focuses on improving to perform activities of daily living and offers ideas to assist you in creating a safe home environment.

Some adaptive equipment that may be helpful to remain independent during your recovery include:

- ✓ **Bedside commode/shower chair**
- ✓ **Reacher**
- ✓ **Sock-aide**
- ✓ **Long-handled bath sponge and shoehorn**
- ✓ **May be obtained from any medical supply store or pharmacy**



Durable Medical Equipment (DME)



Call, Don't Fall Program at HOI

During your recovery, the risk of a slip or fall increases due to the recent surgery, new medications, decreased mobility, weakness and dizziness.

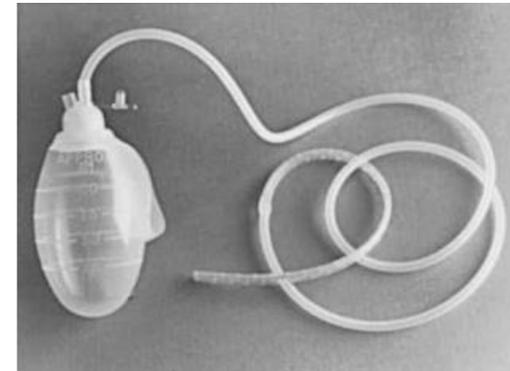
HOI staff members are here to assist you and keep you safe. Let us be of service to you. Please call to have staff assist you:

- ✓ To the restroom
- ✓ Stand
- ✓ Get out of bed
- ✓ Sit in chair
- ✓ Ambulate

We encourage you and your family to watch the educational video on your TV to learn more about how to prevent a fall.



Equipment and Attachments Used During Your Hospital Stay



Incentive Spirometer



How Do You Rate Your Pain?

It is normal to have pain and discomfort after spinal surgery.

Please be aware that you may not be “PAIN FREE”. It is ALWAYS our top priority to manage your pain.

Your surgeon may use a multi-modal approach to reduce pain that you may experience after surgery.

Your nurse will review the pain management plan, set a goal with you and dispense pain medications accordingly.

Pain management physicians are available if you suffer from chronic pain. Repositioning in the bed may provide comfort. Call for help to be repositioned.

Pain Management

To ensure the best possible pain relief, your doctors may use a pain control approach called multimodal analgesia.

The main goal is to decrease your need for opioid medications.

Multimodal pain management includes non-steroidal anti-inflammatory medications, Tylenol, muscle relaxer meds, relaxation music and opioid medications especially when other medications do not give you enough pain relief.

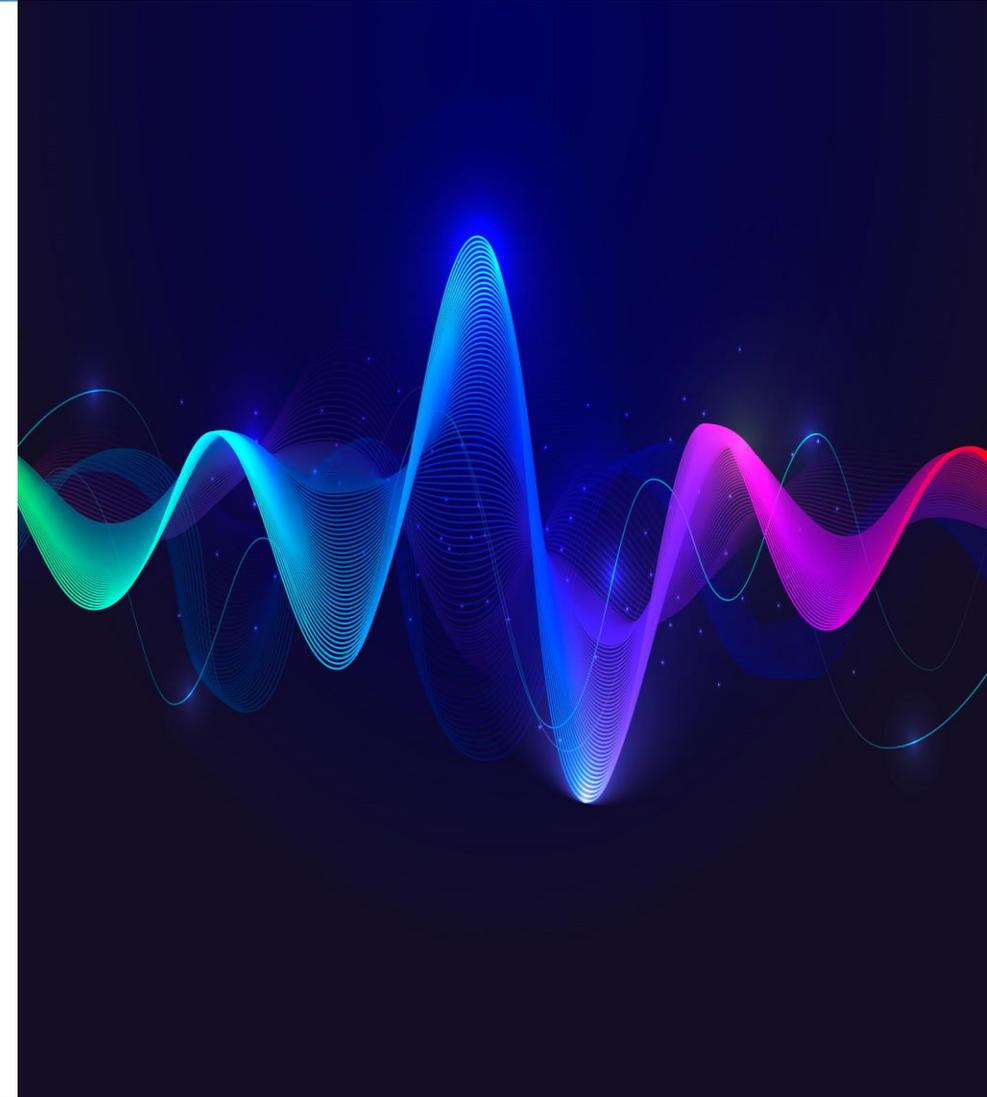


We will **ALWAYS** make every effort to provide a quiet and relaxed atmosphere.

On occasion, you may experience common hospital noise from equipment and/or other patients and visitors.

Ear plugs and relaxation videos are available. Let your nurse know if you are being disturbed by the noise.

Quiet time reinforced from 2pm–4pm & 10pm - 6am. Staff may limit the number of visitors to adjust the noise level for others to sleep and rest.



Discharge

Your hospital stay will usually be from 1 to 2 days. The Hoag Orthopedic Institute team will work carefully with you and your family to plan your discharge.

Care Managers specialize in helping you and your family navigate and plan for discharge.

They will provide you with information and available resources so that you can make the best decision for your discharge.



Discharge

**You may contact the Case Management office
@ 949-727-5439**

**Home health physical therapy arrangements
are made.**

**Possible acute rehab or skilled nursing facility
placement to be determined.**



Discharge

Your nurse will review your personalized discharge paperwork and home medications.

You will receive specific instructions at the time of your discharge of who and when will remove the dressing and further instructions about incision care and showering.



Discharge

You will receive clearance from your surgeon, hospitalist and physical therapist to discharge from the hospital (This process might take several hours).

Your pain should be managed by oral medications.

You will be swabbed for MRSA if you stayed overnight.

View discharge video on TV.

Plan accordingly to have your ride available.



Conclusion



Patient Satisfaction at HOI

To continually monitor and improve the experience of our patients, we have partnered with Press Ganey to conduct patient satisfaction surveys.

If you are one of the patients randomly selected to participate, we appreciate your time in completing the survey and returning it in the accompanying postage paid envelope at your earliest opportunity.

We read every survey and rely on this feedback to make any changes that may benefit future patients.



Thank You for Choosing Hoag Orthopedic Institute



WE GET YOU BACK TO YOU!

