

# PATIENT & CAREGIVER GUIDE

PREPARING FOR  
SPINE SURGERY



University of Colorado Hospital  
UNIVERSITY OF COLORADO HEALTH







Thank you for choosing University of Colorado Hospital (UCH) for your spine care. We understand the thought of having surgery is stressful and we strive to help prepare you for this experience. We have created this book to help provide you with answers to questions you may not have thought to ask. Our goal is to help you become more comfortable and informed about the process while preparing for surgery.

Here at UCH, we have an expert team of both Neurosurgeons and Orthopedic surgeons with extensive experience in simple and complex spinal disorders. These surgeons are surrounded by a knowledgeable team of nurses, pharmacists, and physical and occupational therapists who pride themselves on giving compassionate and individualized care to each patient.

UCH is a state-of-the-art facility that has more caregivers per patient than any other hospital in the area. This means that we can respond to your needs promptly, which is important as you recover from your surgery.

UCH is a highly acclaimed facility and has won many awards, including the University Healthcare Consortium (UHC) award for Excellence in Quality twice in a row — the only hospital in history to achieve this. The hospital also attained Magnet status three times, a prestigious recognition which distinguishes UCH as providing quality patient care and achieving excellence in nursing care.

The excellent quality of care that you will receive at UCH will extend throughout your experience. The Spine Center at UCH is a Blue Distinction® Center+ for spine surgery; the only hospital in the state to receive this designation. Hospitals that receive a Blue Distinction Center+ designation are evaluated on their ability to deliver high quality, safe and efficient specialty care that results in superior outcomes.

Designated as a

**Blue  
Distinction®**  
**Center +**  
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## INTRODUCTION TO YOUR HEALTH CARE TEAM

**Coach:** Your coach is a family member or friend who you identify as someone to help you throughout this process. Your coach is also encouraged to attend the pre-surgery education class, as well as any follow up appointments with your surgeon.

**Attending Surgeon:** Your surgeon has been specially trained in Ortho or Neurosurgery to care for complex spine problems. He or she will oversee your care throughout your stay.

**Spine Fellow:** A surgeon completing a one-year program to specialize in complex spinal problems. He or she will work closely with your attending surgeon.

**Resident:** A Medical Doctor (MD) who has completed medical school and is in training.

**Anesthesiologist:** Your anesthesiologist will provide the medications needed to keep you asleep throughout surgery. He or she will also monitor your vital signs during surgery for your safety.

**Primary Care Provider (PCP):** Your primary care provider is your physician who oversees your overall health care. Information about your surgical care and discharge will be sent directly to your PCP.

**Mid-level Practitioners:** A Physician Assistant (PA) or Nurse Practitioner (NP). They are very involved in your care and assist your surgeon throughout your entire surgical experience.

**Registered Nurse (RN):** Much of your care will be provided by an RN while you are in the hospital. Your RN coordinates with all team members and delivers your care, specified by your surgeon.

**Nurse Navigator:** This is an RN who is there to assist and guide you through your journey. Your Nurse Navigator will teach your pre-surgery class, visit you while in the hospital, and answer any questions you may have throughout the process.

**Certified Nursing Assistant (CNA)/ Advanced Care Partner (ACP):** Your CNA/ACP will assist you with personal care activities, such as bathing, changing clothes or getting to and from the bathroom.







**Medical Assistant (MA):** You will meet a MA during your outpatient follow up appointments. Your MA will greet you and prepare you to be seen by your surgeon or mid-level practitioner.

**Physical Therapist (PT):** Your PT is trained to help you walk correctly and get in and out of bed safely. They will teach you proper spine precautions for you to follow in the weeks to come.

**Occupational Therapist (OT):** Your OT is trained to help you learn Activities of Daily Living (ADL's). They may teach you to use specialized equipment in order to help you with proper spine precautions.

**Dietitian:** Your dietitian provides nutritional support throughout your stay and can help you make healthy food choices.

**Chaplain:** A chaplain is trained to serve your spiritual needs upon your request, as well as those of your family, regardless of your religious denomination.

**Pharmacist:** A pharmacist will work with your surgical team to manage your medications during your stay. They are also trained to catch any drug interactions.

# YOUR SPINE

## ➤ Your Vertebrae, Spinal Discs and Facet Joints

Each vertebra has a pointed bone called a *spinous process*. These bones form the hard ridge of your backbone that you feel when you run your hand down your back. Various muscles and their ligaments attach to the spinous process and stabilize the spine.

Your vertebrae are divided into three regions plus the sacrum and tailbone:

**Cervical:** 7 bones in your neck make up the cervical spine.

**Thoracic:** 12 thoracic bones make up your upper back.

**Lumbar:** 5 lumbar bones make up your lower back.

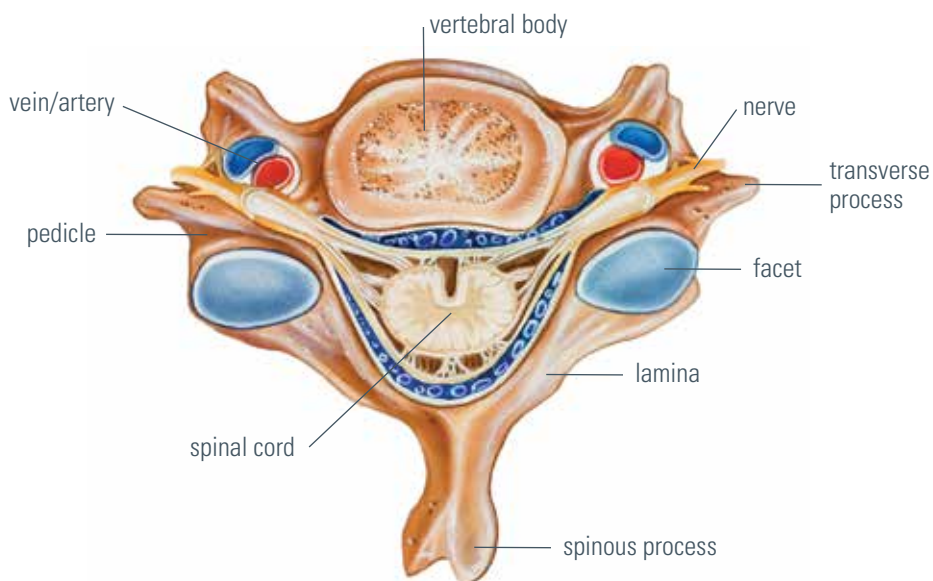
**Sacral and Coccyx (Tailbone):** 9 bones make up your sacrum and tailbone.





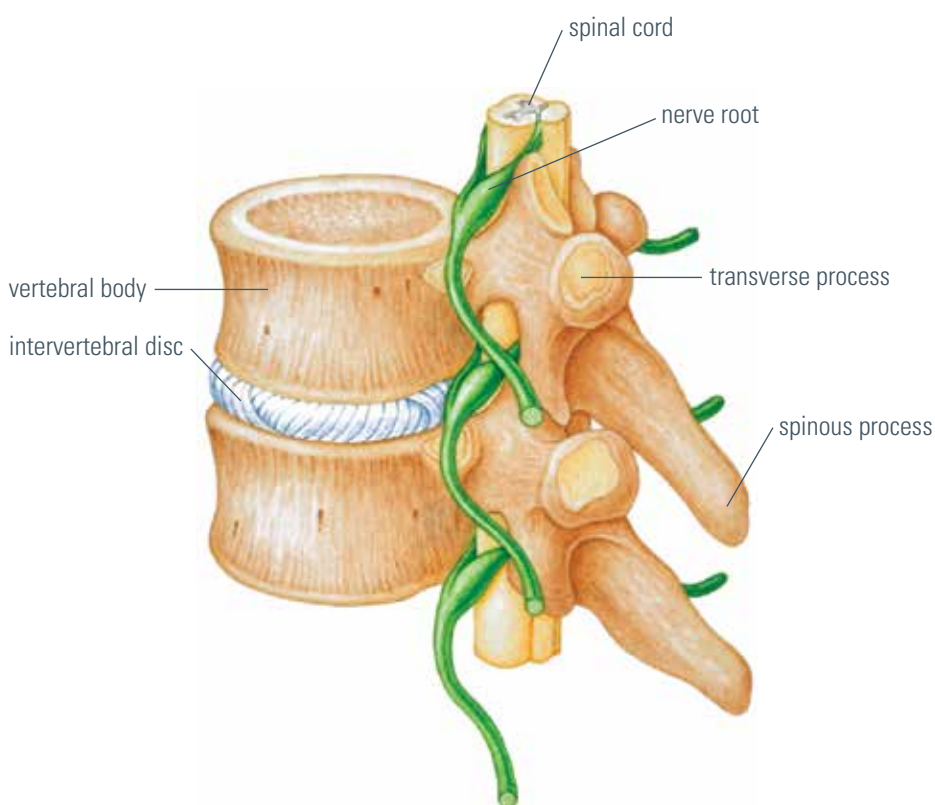
## ➤ Your Spinal Canal and Spinal Cord

Each vertebra has a large opening in its center called the spinal canal. The spinal cord passes through this large opening and runs from the brain to the lumbar spine. The spinal cord carries motor information from your brain down to your body. It also carries sensory information from your body back up to your brain and coordinates important reflexes in your body.



## ➤ Your Spinal Nerve Root, Spinal Nerves and the Foramen

The *spinal nerve root* is where the *spinal nerves* branch off of the spinal cord. The spinal nerves then pass through small openings of the vertebrae called *foramen*. The nerves affect the movement and feeling of the muscles and skin that they connect to. These nerves are also involved in the function of your digestive and urinary systems.



## COMMON CAUSES OF NECK AND BACK PROBLEMS

### ➤ Type of Back and Spine Ailments

Back and spine problems can occur for a variety of reasons. Sometimes your physician may not know why you have developed back problems. Common reasons include: poor posture, poor body mechanics, being overweight, living or working conditions, skeletal or structural problems.

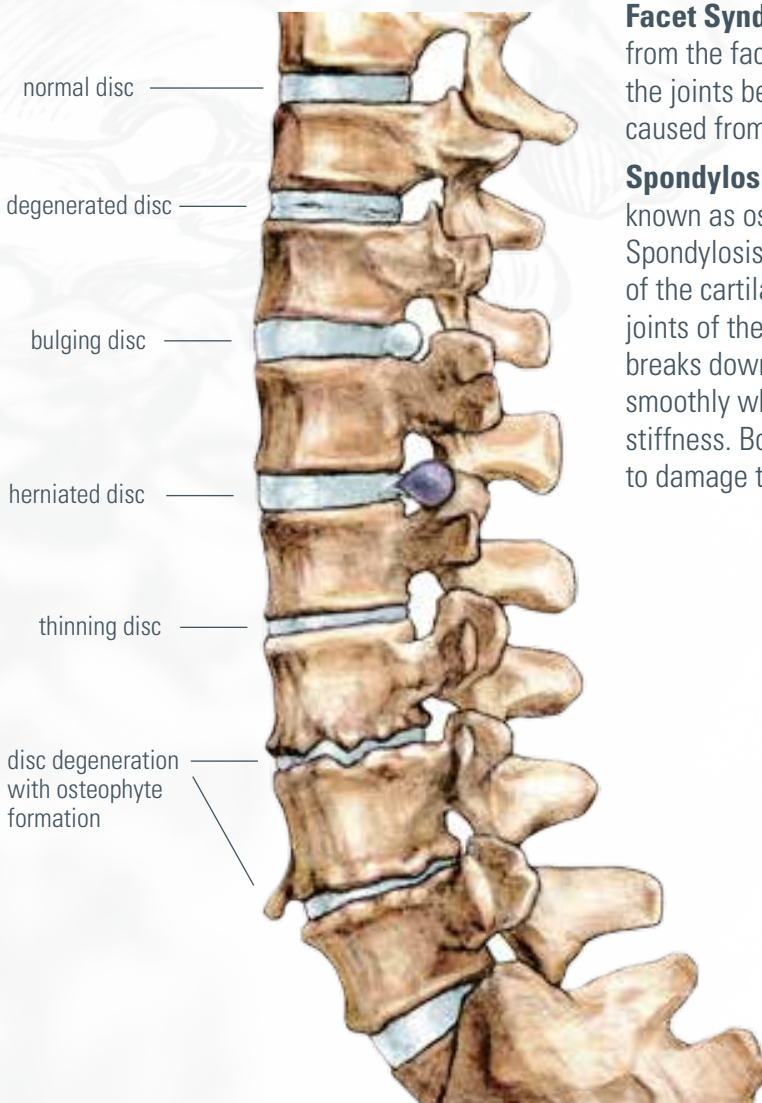
**Degenerative Disc Disease (DDD):** This condition happens when the disc wears down from either the natural process of aging or from injury to the back. This can contribute to a disc herniating.

**Herniated Disc:** This is also called a “slipped disc”. This happens when the center of the disc ruptures and bulges through the outside of the disc. This can cause pressure on the nearby nerve root and spinal nerve to produce pain, numbness and tingling.

**Spinal Stenosis:** Narrowing of the spinal canal. This can put pressure on the spinal nerves or compress the spinal cord itself, causing weakness, numbness, and/or pain below the level of injury.

**Radiculopathy:** Compression or pinching of the nerve root or the spinal nerves can create pain, numbness, tingling and weakness.

**Myelopathy:** Myelopathy happens when there is damage to the spinal cord itself. This can develop from extensive stenosis and arthritic changes of the spine and may result in weakness, numbness and problems with coordination.



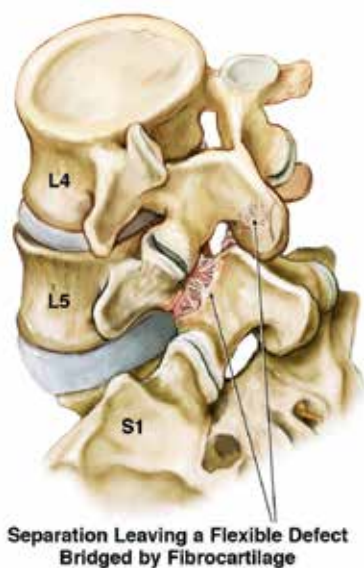
**Facet Syndrome:** Pain that originates from the facet joints. This occurs when the joints become damaged, or it can be caused from an injury.

**Spondylosis:** Spondylosis is also known as osteoarthritis of the spine. Spondylosis is a result of degeneration of the cartilage which coats the facet joints of the spine. When the cartilage breaks down, the joint does not move smoothly which can cause pain and stiffness. Bone spurs can also form due to damage to the bone.

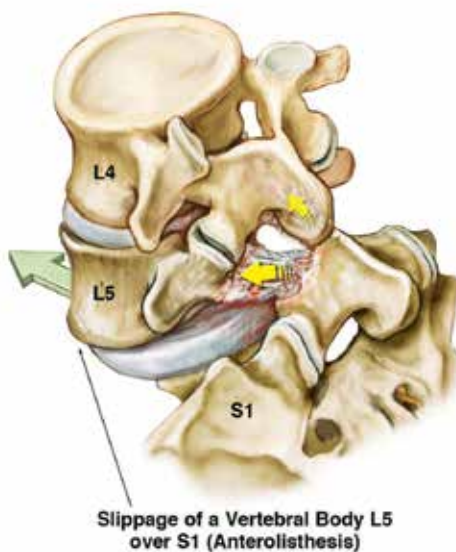


**Spondylolysis:** Spondylolysis is different from spondylosis. It is an actual weakness in one of the bony bridges which connect the facet joints together.

**Spondylolisthesis:** Degeneration or trauma to the joints of the spine allows the vertebra to slip forward and create instability of the spine. This can lead to pinched nerves and create radiating pain.



Spondylolysis



Spondylolisthesis

**Scoliosis, Kyphosis and Lordosis:** These are all abnormal curves of the spine. Scoliosis creates an S curve from side to side. Kyphosis occurs when the bones of the thoracic spine curve outward creating a hunchback. Lordosis is an exaggerated curve of the lumbar spine and creates a swayback appearance.



Kyphosis



Scoliosis

## SURGICAL PROCEDURES AND RISKS

### ➤ Surgical Procedures

**Anterior:** The front of the body. An anterior operation means the operation is done through the front of the body.

**Posterior:** The back of the body. A posterior operation means the operation is done from the back of the body.

**Fusion:** A surgical procedure to make two or more of the bones in the spinal column (*vertebrae*) grow together (*fuse*) into one solid bone so motion does not occur between them. This helps to relieve pressure on the nerves or the spinal cord. Bone grafts are inserted around the spine, which will heal over time to form a solid bony graft.

**Discectomy/ Microdiscectomy:** The removal of a portion of, or the entire disc, which is causing pressure on the nerves and spinal cord. Typically, if the whole disc is removed, a fusion is also done. A microdiscectomy is a minimally invasive procedure, whereas a discectomy is an open procedure.

**Decompression:** A surgical procedure in which the surgeon removes the affected degenerative (worn out) disc and some bone. This helps relieve pressure on the nerves and/or spinal cord.

**Laminectomy:** A surgical procedure where part of the vertebral bone is removed in order to expand the diameter of the spinal canal. This can relieve pressure on the nerves and spinal cord caused by spinal stenosis.

### ➤ Cervical Surgeries

**Anterior Cervical Discectomy and Fusion (ACDF):** The most common cervical fusion surgery where the painful disc is removed (discectomy) and stabilized with a fusion. The incision is made in the front of the neck.

**Laminoplasty:** A surgical procedure to treat spinal stenosis by relieving pressure on the spinal cord.

### ➤ Thoracic Surgeries

**Kyphoplasty:** A procedure to stabilize bone and attempt to restore height which is lost due to a fracture of the vertebrae. A cement-like substance is injected into the weakened vertebrae.

**Vertebroplasty:** This procedure can be performed to treat a fracture of the vertebrae. A cement-like substance is injected into the bone.

### ➤ Lumbar Surgeries

**X-STOP Procedure:** The placement of the X-STOP device, which is a spacer inserted between the spinous processes, for treatment of lumbar spinal stenosis.

### ➤ Coccyx (tailbone) Surgeries

**Coccygectomy:** A surgical procedure in which the coccyx is removed.



### ➤ Surgical Risks

There are risks to every invasive procedure. Your job is to weigh the risks versus the benefits of the surgery that is being recommended to treat your condition. Your surgeon will discuss specific risks of your surgery with you, but there are certain risks that are associated with all spine surgeries. These include but are not limited to:

**Bleeding**

**Infection**

**Spinal fluid leak**

**Blood clots in the legs or lungs**

**Need for additional surgery**

**Nerve and/or spinal cord injury**

**Change in temperature and sensation**

**Failure to fuse**

**Hardware problems/failure**

**No improvement in symptoms**

## PLANNING FOR YOUR SURGICAL EXPERIENCE

➤ **Please tell us your coach's name:** \_\_\_\_\_.

**You will need to identify a coach to help you during and after surgery. This person should be present for preoperative visits and education. They should also plan to arrive at the hospital the morning of your discharge to hear your discharge instructions and drive you home.**

### ➤ **Health Care Decisions**

- » Prior to your surgical procedure you will be asked to designate someone to make medical decisions for you in the event you are unable to make your own decisions. To assist you in this process, we have copies of the "5 Wishes" book available. This book is a Living Will which allows you to clearly state the decisions you have already made about your medical treatment, comfort, Power of Attorney, and any other information regarding your health that you want your loved ones to know.
- » If you already have a Living Will, Power of Attorney, or Advance Directive please be sure to bring a copy with you to the hospital.

### ➤ **Insurance Coverage**

- » Please contact your insurance company to check your benefits including: co-pay, deductible and co-insurance based on the type of surgery you are having.

### ➤ **Smoking Cessation**

- » Smoking disrupts the normal function of the body's systems which affect bone growth. New bone growth is very important for patients having spine surgery, especially those having spinal fusions.
- » Patients who smoke have a higher risk of developing an infection after surgery. UCH is a non-smoking facility (including electronic cigarettes); if you need smoking cessation resources please call the Colorado Quit Line at 1-800-639-QUIT or access their website at [www.co.quitnet.com](http://www.co.quitnet.com).

### ➤ **Medications**

- » Always follow your doctor's instructions regarding your medications. Your surgeon will tell you which medications you should and should not take before surgery.
- » Ask your doctor when you should stop taking aspirin, ibuprofen and other blood thinners. These are typically stopped two weeks before surgery.
- » Make sure your doctor knows all vitamins and supplements you are taking and include them on your medication list.
- » Please bring a detailed list of your medications with you to the hospital. It is important your doctor knows the dose and frequency of all pain medications you are taking at home so we can adequately control your pain after surgery. **DO NOT** bring your actual medications to the hospital as they could get misplaced.





## ➤ Hospital Rooms

- » Every attempt will be made to place you on one of our inpatient spine floors. Your placement will be assessed by a clinical hospital manager, and will be based on medical necessity and the specific needs of your care. You will be followed by the Spine Team throughout your stay with us.
- » Our excellent teams of physical and occupational therapists all have experience with spinal surgeries. They will see patients wherever they are in the hospital, and will provide the same level of care no matter where your room is.

## ➤ Visitation

- » Your coach and family can wait in the surgical waiting room until you are out of the operating room. They will be able to view your status on monitors throughout your surgery.
- » Once you are settled in your room, your coach and family can visit you at any time. Please note: intensive care units have specific visitation hours.
- » Most of our rooms are private with a pull-out couch, but we do have some semi-private rooms that will not accommodate overnight guests in the room.
- » Please note that we do not provide visitor meals or personal hygiene items for guests.
- » UCH has relationships with local lodging “hotels/motels” that offer friends and family discounts.
- » UCH cannot assume responsibility for boarding your family while you are in the hospital. You are encouraged to investigate lodging options that meet your price point.

## ➤ Transportation

- » You will not be able to drive yourself home. Please ensure your coach, or another responsible adult is available to drive you home from the hospital.
- » Your doctor will give you instructions as to when you will be allowed to drive following your surgery. Be sure to talk with your doctor before driving.
- » Generally, after **lumbar surgery**, you must be off all narcotics and feel comfortable enough to press the vehicle brakes quickly while driving.
- » Following **cervical surgery**, you typically will not be permitted to drive while still required to wear your neck brace.

## ➤ At Home

- » Arrange your home items (kitchen utensils, clothing, toiletries, etc.) so that most frequently used items may be reached easily. Remember: No bending, lifting, or twisting after surgery.
- » Remove throw rugs and other tripping hazards from your floors.
- » Arrange for child care and pet care if needed while you are in the hospital.
- » You may want to prepare and freeze meals ahead of time.

## WHAT TO EXPECT: SURGERY CHECKLIST

### ➤ Packing for the hospital

- ☐ Comfortable, loose-fitting clothes
- ☐ Socks and shoes that are easy to put on, but not flip-flops
- ☐ Cell phone and charger
- ☐ Personal hygiene items: please bring your dentures and their case – your family will need to keep these
- ☐ Hearing aids if applicable
- ☐ Neck or back brace if your doctor has ordered one for you
- ☐ If you already use an assistive device, put your name on it and bring it with you
- ☐ Glasses
- ☐ Your CPAP mask if you use one at home (bring your settings)
- ☐ Bring your insurance card and ID
- ☐ Your Patient and Caregiver Guide Book
- ☐ Your medication list – including dosage and frequency

### ➤ Do NOT bring:

- ☐ Cash
- ☐ Jewelry
- ☐ Valuables
- ☐ Medications

### ➤ Night before surgery

- ☐ If you have not been called by the pre-operative team by 2:00 p.m. the day before your surgery, please call (720) 848-6070 before 4:00 p.m. that day. They will be able to confirm your arrival and surgery times.
- ☐ Shower either the night before or the morning of surgery.
- ☐ Change your bed linens so that they are clean when you return home.
- ☐ Eat a normal dinner.
- ☐ Do not drink alcohol.
- ☐ Do not eat or drink anything after midnight unless otherwise instructed by your doctor. You may have clear liquids up to 4 hours prior to your surgery time. Clear liquids include: water, black coffee, juice you can see through, and clear sodas. NO orange juice.





### ➤ Morning of surgery

- ☐ Your doctor will advise you which medications you should and should not take the day of surgery.
- ☐ You may shower, but do not wear lotions, deodorant, makeup or cologne.
- ☐ Do not chew gum or suck on hard candy.
- ☐ Hospital parking – you can park in front of Anschutz Inpatient Pavilion 2 (AIP 2). UCH also offers free valet parking between 7:00 a.m. – 8:00 p.m.
- ☐ Arrive 2 hours early to the surgery check-in center which is located on the second floor in the Anschutz Inpatient Pavilion 2.

## WHAT TO EXPECT: THE DAY OF SURGERY

### ➤ Pre-operative Care

- ☐ Your surgery team includes: Your surgeon, Anesthesiologist/CRNA, Nurses, Operating Room Technicians and any Residents or Physician Assistants/Nurse Practitioners who will be assisting during your surgery
- ☐ Your surgery consent will be reviewed with you
- ☐ Your surgical site will be marked
- ☐ Anesthesia consent will be reviewed and signed
- ☐ We will ask you to change into a hospital gown
- ☐ Place an armband on your wrist
- ☐ Ask you for your name and birth date, regularly
- ☐ Assess your fall risk and provide you with non-slip socks
- ☐ Place an IV in your arm or hand
- ☐ Place compression stockings on your legs to prevent blood clots
- ☐ We will identify where your family will be and who will notify them when surgery is over
- ☐ Your coach and family can wait in the surgical waiting room until you are out of the operating room; they will be able to view your status on monitors throughout your surgery

### ➤ Operating Room

You will be connected to various monitors so that your anesthesiologist can begin to give you pain and sedation medications for your surgery. Your surgical team will prepare you and place drapes to ensure a sterile environment.

Your surgeon will be able to give you an estimated time that your surgery will begin and how long your surgery will take. Although every effort is made to keep surgeries on schedule, there are occasional delays that prevent us from starting on time. Your surgical team will update your coach, family member or friends about any delays. In addition, there are monitors in the waiting room that will display real-time status updates.

### ➤ Post-operative Care

You will spend some time in the Post Anesthesia Care Unit (PACU) recovery area before being taken to your hospital room. We will monitor your vital signs and blood flow to your hands and feet carefully while you recover from anesthesia. We will frequently ask you about your pain and we will check the strength and feeling in your arms and legs.







## WHAT TO EXPECT: PAIN MANAGEMENT

Most patients who are undergoing spine surgery have pain that led them to seek medical help. Post-operative pain is different from your pre-operative pain and can be related to your incision, swelling, and muscle tension. Incisional pain is pain right at your incision site. Muscular pain and pain related to swelling can be relieved by early walking, gentle range of motion exercises, applying heat or cold packs, and/or taking muscle relaxers. Our goal is to reduce your pain so that you can work with Physical and Occupational Therapy and regain your mobility and independence.

We will ask you frequently to rate and describe your pain. We use a 0-10 rating scale: 0 is no pain, and 10 is the worst pain you could ever have. You may hear terms like aching, burning, throbbing or shooting to describe your pain.

### Narcotic Medications and Their Side Effects

#### ► IV Narcotics

- » We can either give pain medication through your IV as you need them or you might be given a pump to use as a PCA (Patient Controlled Analgesia). The PCA allows you to press a button and a dose of narcotic will be administered through the IV. The PCA has a set dose of narcotic and a set interval between doses.
- » You will be placed on a continuous telemetry and pulse oximeter, to monitor your heart rate and oxygen levels in your blood.
- » Common IV pain medications are Dilaudid, Fentanyl and Morphine.
- » Our goal is to transition you to oral pain medications as soon as possible and get you on a good plan to manage your pain at home.

#### ► Oral Narcotics

- » Once you are able to eat a little without nausea, we will give you oral pain medications. Oral meds tend to control your pain for longer periods of time.
- » Common oral medications are Percocet, Vicodin, Oxycodone and Ultram.



➤ **Side Effects of Narcotics** – Everyone responds differently to narcotics. Common side effects and treatment include:

- » Constipation
  - Limit narcotics to just what is necessary to control your pain.
  - Take stool softeners and laxatives such as Colace and Senna.
  - Drink plenty of water.
  - Eat high fiber fruits and vegetables.
  - Get out of bed and walk as soon as you are able to.
- » Shallow breathing
  - Use your Incentive Spirometer as instructed by your nurse to prevent pneumonia.
  - You will be asked to take deep breaths and cough to clear out any mucus in the lungs.
- » Nausea
  - Take oral medications with food.
  - Eat bland foods at first; avoid spicy or heavy foods.
- » Itching
  - Medications like Benadryl can help relieve itching. If this doesn't work, we may need to adjust your medications.
- » Sleepiness
  - If you become too sleepy with pain medications, we will need to decrease the amount of medication you are taking.

➤ **Non – Narcotic Pain Medications**

- » Please note that medications are ordered on an individual basis and not everyone will be prescribed all types of medications. These may include:
  - Muscle relaxers such as Flexeril, Zanaflex or Valium.
  - Medications for nerve pain such as Lyrica or Neurontin. If you were on these before surgery, we may increase your dose after surgery.
  - Tylenol or Acetaminophen. You should not take more than 3,000 mg of acetaminophen per day.
  - NOTE: We typically avoid ibuprofen or other non-steroidal, anti-inflammatory medications because they may increase bleeding and can prevent bone fusion from occurring.

➤ **Other treatments that can treat pain and help you cope with your pain**

- » Repositioning and early ambulation can help prevent muscle spasms.
- » Ice can help decrease post-operative swelling and should be used for 20 minutes on and 20 minutes off.
- » Relaxation techniques such as deep breathing, meditation and imagery can be helpful.
- » You may also experience a sore throat following surgery. Drinking water and using throat lozenges may help with this.
- » Distraction techniques such as listening to music or watching TV can help take your mind off of your pain.

# WHAT TO EXPECT: THE NEXT DAYS AFTER SURGERY

## ➤ Early Walking/Mobilization

- » Unless otherwise instructed by your doctor, you will either sit on the side of the bed or perhaps get out of bed the evening of surgery. Moving around and getting out of bed is important to prevent blood clots and pneumonia, as well as to help you heal.
- » Leg pumps or Sequential Compression Devices (SCDs) will be on your legs at all times while you are in bed to prevent blood clots in your legs.



## ➤ Physical and Occupational Therapy

- » Your doctor will order Physical and/or Occupational Therapy. If your doctor has ordered a specific neck or back brace, either the PT or OT can teach you how to put it on and take off. They will also explain spinal precautions and how to protect your neck and spine when you begin moving around. The therapists will also help you learn how to complete Activities of Daily Living (ADL's) while following your spine precautions of no Bending, Lifting or Twisting (BLT's). They will also evaluate you and recommend any assistive devices or adaptive equipment that might help you with ADL's.
- » Your therapists will educate you on more specifics after your surgery and will give you additional written instructions for you to take home.

## ➤ Diet

- » Your diet will begin with ice chips and slowly be advanced to a clear liquid diet. Once you have met certain goals (passing gas, no nausea/vomiting) your diet will be advanced per your physician's orders. You will be given a menu and can order what you would like, according to your diet.
- » Patients having cervical surgeries may have a more difficult time swallowing after surgery. You may be seen by a Speech Therapist to assess how you are swallowing.

## ➤ Lung Function

- » You will be given oxygen through a nasal cannula (tube) in your nose until you are able to keep up your oxygen levels on your own. Your oxygen level will be monitored with a probe taped to your finger.
- » Occasionally, patients require continued supplemental oxygen at home. We will ensure your home oxygen therapy is arranged prior to your discharge from the hospital. You will need to follow up with your primary care physician within 1 week of your discharge to discuss how long you will need to remain on oxygen.

## ➤ Bowel Function

- » Many people experience constipation after spine surgery and when taking narcotics.
- » It is very important to try and drink plenty of fluids, take stool softeners and laxatives as needed, eat plenty of fruits and vegetables and get up out of bed as soon as you can.

## ➤ Bladder Function

- » You may have a urinary catheter inserted into your bladder in the operating room. This will be removed as soon as you are able to move around. Urinary catheters can allow bacteria into your bladder so we want to get it out as soon as we safely can.
- » Occasionally people have problems urinating freely after their catheter is removed. We will monitor the amount of urine in your bladder and drain urine with a catheter if we need to. Rarely, people have to go home with a catheter until they are able to urinate on their own.

## ➤ Incision Care

- » Your nurse will assess your dressing and incision frequently and your doctor will provide instructions regarding when your dressing can be removed.
- » You may or may not have a drain coming from your incision site. This will drain fluid from the incision site into a small container. This drain will be cared for by your nurse and will be removed by your doctor.

## ➤ Equipment in the Room

- » **Urinary Catheter:** A urinary catheter that drains urine from your bladder. This will be removed when you are able to get out of bed.
- » **IV – Intravenous Catheter:** This will remain in place until you are discharged. You will receive IV fluids through an IV pump until you are able to eat and drink normally.
- » **Oxygen:** You will be given oxygen until you are able to keep your levels up on your own.
- » **Incentive Spirometer:** This is a tool to help keep your lungs active and clear, to prevent pneumonia. Your nurse will teach you how to use it and you will be instructed to use this every hour while you're awake.
- » **Leg Pumps:** You will need to wear these while in bed to prevent blood clots in the legs.



## WHAT TO EXPECT: DISCHARGE INFORMATION

It is always our goal that patients return home after spine surgery. Rarely, patients are unable to go home and will require additional care elsewhere. Our Case Managers and Social Workers are available to help with discharge planning and will work with your insurance company. Insurance coverage does vary so please be aware of your insurance benefits regarding:

- » Home health
- » Acute rehabilitation
- » Outpatient therapy
- » Skilled nursing facilities

### ► **Goals for Discharge:**

- » Be able to get in and out of bed
- » Walk in the hallway by yourself or with a walker/cane
- » Be able to perform personal hygiene
- » Tolerate eating and drinking
- » Urinate after removal of the urinary catheter
- » Manage pain with oral medications
- » Be able to walk up and down stairs if you have stairs in your home

### ► **You will not be allowed to drive yourself home. Your coach will need to arrive at your hospital room the morning of your discharge and be ready to take you home.**

- » We will give you typed discharge instructions which your nurse will go over with you.
- » We have a discharge lounge if you will need to wait for your ride after discharge.
- » We encourage you to have your prescriptions filled at University of Colorado Hospital's pharmacy, or we can send them to a pharmacy of your choice. If you choose not to use the UCH pharmacy, please know the phone number and address of your preferred pharmacy.
- » You will need to call your surgeon's office to schedule your follow up appointment.





## WHAT TO EXPECT: BEYOND THE HOSPITAL

### ➤ Spinal precautions

- » Wear your brace if your doctor has ordered one for you.
- » Avoid high impact or strenuous activities. Do not do any heavy housework such as vacuuming, cleaning windows, shoveling snow, mowing the lawn. Do not resume any sports activities until cleared by your doctor. Walking is the only exercise you should do until your surgeon tells you otherwise.
- » No Bending, Lifting or Twisting (BLT's).
- » **Lumbar surgery:** Do not bend your hips greater than 90 degrees. Avoid twisting the trunk. Do not squat, kneel or get down on the floor. You should avoid prolonged sitting (greater than 30 minutes) when possible. This can help alleviate some of the back stiffness and pain.
- » **Cervical surgery:** Do not aggressively bend the neck forward, backward, or side to side after a cervical surgery. Also avoid lifting the arms above the head for extended periods of time. Prop reading materials at eye level to prevent flexing the neck down to the chest.
- » Lifting restrictions: No lifting greater than 10 pounds (about the weight of a gallon of milk) until your follow up appointment with your doctor. When you do need to lift something, carry the object close to your body.





## ➤ General rules for activities of daily living (ADL's):

*NOTE: All activities should be performed using spinal precautions!*

### » Sitting:

- Use a chair with arm rests and good back support.
- Avoid soft sofas or chairs; it is difficult to stand up without bending forward.
- Avoid chairs with wheels.
- Maintain good posture and move slowly.
- Scoot forward to the edge of the chair and use the armrests to help push yourself into a standing position.

### » Sleeping:

- Use pillows for positioning. Place pillows under your knees when on your back and between your legs when on your side.
- Sleep on a firm mattress or surface.
- Sleeping on your stomach is not recommended.
- "Log Roll" by moving shoulders and hips together to avoid twisting.
- In order to get out of bed, push down with your elbow closest to the bed, at the same time you are lowering your legs off the bed. Move the knees, hip and shoulders together as one unit.

### » Standing:

- Wear comfortable shoes with good support.
- Change positions frequently.
- Maintain good posture.

### » Pushing/Pulling:

- It is better to push than to pull.
- Keep your back straight and head up.

### » Showering:

- You should shower every day. You will be given specific instructions regarding when you can let the water run over your incision.
- Your doctor may instruct you to keep your dressing dry while showering; this can be done with plastic wrap and medical tape. You may want to purchase liquid soap and a long-handled bath brush to avoid bending and twisting in the shower.
- You may want to have someone stay close by until you feel safe.
- NO bathtubs, hot tubs, swimming or soaking for at least 2 weeks after surgery.

### » Toileting:

- You may want to get a raised toilet seat to make it easier to get up from, and down to the toilet.
- Make sure the toilet paper is easy to reach and that you don't have to twist to grab it.

### » Incision care:

- If you go home with a dressing in place, your doctor will give you dressing care instructions.
- Stitches or staples will be removed by your doctor at your follow up appointment. Some stitches are dissolvable and don't need to be removed.
- Wash your hands before and after touching your incision.
- Do not scrub your incision site. Let the water gently run over your incision and gently pat it dry.
- Keep pets away from your incision.
- Do not take off your steri-strips; they will fall off on their own. If they do not come off after 2 weeks, gently peel them off.
- Monitor incision for signs of a surgical site infection. Notify your surgeon if you notice any of the following:
  - ~ Redness or warmth around the incision site
  - ~ Any puss-like drainage
  - ~ Fever > 101°



## ➤ Medications

- » Your doctor will instruct you on which medications you should resume after you go home. Take your medications as instructed realizing that some medications are to be taken only as needed.
- » You will be given prescriptions for medicine to help with pain and discomfort. The discomfort will gradually decrease over the next few weeks. This will allow you to take less pain narcotics daily. You should be able to switch to acetaminophen (Tylenol), 500 to 1000 mg every six hours as needed. Do not take more than 3,000 mg of acetaminophen in one day. Please be aware that some medications, such as Percocet and Vicodin already contain Tylenol.
- » You may also be given prescriptions for medications such as Flexeril or Valium for muscle spasms to take as needed. These can both make you sleepy.
- » Do not operate heavy machinery or drive while on narcotic medications and muscle relaxants since they can alter your level of alertness.
- » If you had a spinal fusion, you will be instructed to avoid NSAIDS (non-steroidal anti-inflammatory drugs) such as Ibuprofen, Naproxen, Advil, Aleve, Celebrex, etc., following surgery.

## ➤ Diet/Nutrition

- » To promote healing, you should eat a well-balanced diet. If you were on a special diet before surgery, you should resume this.
- » Do not drink alcohol. Alcohol will interact with your pain medication(s) and lead to more side effects.
- » To prevent constipation, increase your fluid, fruit, and fiber intake. Increased activities will also be helpful. If you continue to have problems, there are multiple over-the-counter medications you can take including prune juice, Colace, Miralax, etc. Talk to your healthcare practitioner for additional recommendations if you continue to have problems.

## ➤ Driving

- » Most importantly, you should not drive while taking narcotics as these can impair your thinking and reaction time. Generally speaking, you may begin driving after two weeks (or when your incision is healed) for a **lumbar surgery** and 4-6 weeks after a **cervical surgery**. You must feel safe to turn to look without twisting and be able to brake quickly if needed.
- » You should arrange with your coach and other friends and family to be available for your transportation needs. This includes getting home from the hospital, as well as during the estimated length of time you will not be able to drive.
- » Your surgeon may give you other driving restrictions following your surgery. Please discuss this with the surgical team before, as well as after your surgery, and follow these specific instructions.

## ➤ Smoking

- » Smoking disrupts the normal function of the body's systems which can affect bone growth. New bone growth is very important for patients having spine surgery, especially those having spinal fusions.
- » Patients who smoke have a higher risk of developing an infection after surgery. If you need smoking cessation resources please call the Colorado Quit Line at 1-800-639-QUIT or access their website at [www.co.quitnet.com](http://www.co.quitnet.com).



## WHEN TO CONTACT YOUR HEALTH CARE PROVIDER:

### ➤ Call your health care provider immediately if you, or your caregiver, notice any of the following:

- » Temperature greater than 101.5° F (38° C) that lasts more than 24 hours
- » Pain in your chest especially when you cough or take a deep breath
- » Difficulty breathing or swallowing
- » Thick, dark yellow or foul smelling drainage around your incision
- » Pain and redness around your incision
- » Confusion, unusual changes in behavior, or increased headaches
- » Problems controlling your bowels or bladder
- » New or increased focal weakness
- » New or increased focal numbness/tingling
- » New or increased difficulty walking
- » New or increased hand clumsiness
- » Pain, redness, or swelling in your calf

### ➤ My Health Connection

My Health Connection gives you online access to your medical record. Whether you're at work, on the road, or at home, you can view test results, messages from your doctor, and your key medical information. You can even request appointments online. So sign up today — and get connected to your health. [www.myhealthconnection.uchealth.org](http://www.myhealthconnection.uchealth.org)

Have an iPhone or Android phone? Download the free "MyChart" app and select the University of Colorado Health & our "My Health Connection" from the list.

**MY HEALTH  
CONNECTION**







## FAQS: FREQUENTLY ASKED QUESTIONS

### ➤ **Will I set off metal detectors?**

Most patients do not have a problem with this. Very occasionally, when the security wand is waved over the location of hardware, an alarm may result. Then the surgical scar will have to be shown.

### ➤ **When can I return to work?**

This is very individualized to you and the type of work you do. Discuss this with your surgeon. In general, most patients require anywhere from 2-6 weeks off work depending on the type of surgery and the amount of lifting required with the work you do.

### ➤ **Will I begin outpatient physical therapy after surgery?**

The best activity for your back is walking both before and after surgery. After your surgery, you should gradually increase the time and distance you walk. As you heal, your surgeon will order physical therapy after surgery only if it is needed. Please wait until cleared by your surgeon to begin any demanding sports.

### ➤ **How long before I can travel?**

Traveling will depend on your ability to sit for an extended period of time and/or how much movement is required in your travel plans. We encourage you to not sit longer than two hours at a time without getting up and moving around.

### ➤ **What if I have no help after surgery?**

You will not be discharged from the hospital unless there is a proper care plan in place that will allow you to remain safe. Since most surgeries are done on an elective basis, you can prepare by identifying your coach and other support systems before going to the hospital for your surgery.





# IMPORTANT CONTACT INFORMATION

➤ Important phone numbers

Main Hospital	(720) 848-0000
Spine Center	(720) 848-1980
Surgery Scheduler	(720) 848-1936
Nurse Navigator	(720) 848-1914
Neurosciences Unit	(720) 848-7581
Orthopedics Unit	(720) 848-7584
Radiology	(720) 848-1160
Pre-Operative Questions	(720) 848-1670

➤ Additional information can be found on the following websites

- [www.spine-health.com](http://www.spine-health.com)
- [www.understandspinesurgery.com](http://www.understandspinesurgery.com)
- [www.coquitline.org](http://www.coquitline.org)
- [www.national-med.com](http://www.national-med.com)
- [www.myhealthconnection.uchealth.org](http://www.myhealthconnection.uchealth.org)



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# University of Colorado Hospital

UNIVERSITY OF COLORADO HEALTH

(720) 848-0000

## ANSCHUTZ INPATIENT PAVILION 2

12505 E. 16th Ave., Aurora, CO 80045

[uch.edu/spine](http://uch.edu/spine)

