

Spine Surgery Pre-Operative Education

Goals of the Class

Prepare you for your Spine Surgery Experience

Knowledgeable, well prepared patients and care partners have better results after surgery

Your participation is essential to your return home and complete recovery

Patient Reported Outcomes

- Please complete the functional assessments. These help measure your baseline before surgery and progress with pain and activities of daily living after surgery.
- You may receive the following surveys.
 - NDI or ODI
 - VR-12
 - EQ-5D-5L
 - VAS

Getting Ready for Surgery

Care Partner

- You will need to choose a **care partner** to help you before and after your surgery
 - Spouse, child, sibling, friend, neighbor
 - No medical training needed
 - Transport the patient to and from the hospital
 - Observe PT/OT session prior to hospital discharge
 - Helps you with meals, prescription pick up, provides support and acts as a safety net
 - Should plan to stay with you at home for the first 24-48 hours

Preparing Yourself

- Once you decide to have surgery, you may be instructed to schedule a visit with your primary care provider or any other specialists managing your health.
 - Cardiologist, Urologist, Pulmonologists, etc.
- Remain as active as possible before your surgery
- Quit nicotine (at least 30 days prior to surgery)
 - Nicotine use slows the healing process and increases the rate of complications after surgery.
 - Do **not** resume nicotine after surgery

Getting Your Home Ready/Making it Safe

- Arrange items so that they are easy to reach
- Prepare and freeze meals ahead of time
- Move furniture as needed
- Remove rugs and small items from the floor
- Tape down or remove cords to prevent tripping
- Consider installing a handrail on one side of your stairs & grab bars in the bathroom
- Replace light bulbs and install nightlights throughout your home
- Be sure to have proper footwear, such as a rubber-soled, flat shoe that does not slip off

Pre-Admission Testing (PAT)

- May also be referred to as Center of Perioperative Medicine (CPM visit)
- You will need to obtain preoperative clearance before having surgery.
- Prior to surgery you will receive a phone call from PAT. They will gather medical information and provide you with your PAT appointment date and time.
- Appointment is usually 1 hour and may include:
 - Anesthesia Risk Assessment
 - History and physical exam
 - Lab work
 - MRSA testing (nose, armpit, groin)
 - EKG, Chest X-ray, urine sample (if needed)

Pre-Admission Testing

- Eat a normal meal and take all normal medications before your visit
- Bring a current list of **all** your medications and over the counter supplements
 - Include what dose you take and how often you take it (or bring all of your pill bottles)
- **Instructions specific to your medications will be given to you during your clearance visit.**
 - Blood thinning medications
 - NSAIDs
 - Dietary and herbal supplements
 - Over the counter medications/supplements
 - CBD products
 - Medicated ointments/creams

Medications

- **Stop** NSAID (non-steroidal anti-inflammatory) medications listed below at least 1-2 weeks before surgery, unless told otherwise by your surgeon.
 - If you have any questions, talk with your surgeon or pre-admission testing **before** your surgery.
- You can continue to take Tylenol (Acetaminophen) for pain.

NSAIDS	
Celebrex	Indomethacin
Daypro	Aleve / Naprosyn / Naproxen
Lodine	Mobic / Meloxicam
Volteran / diclofenac	Motrin / Ibuprofen / Advil
Relafen	Aspirin

Medications

- You may need to stop taking blood thinners 7-10 days before surgery
- **Do not stop taking blood thinners until you have discussed with your surgeon or during your pre-admission testing visit prior to surgery. This will need to be coordinated with the prescribing provider.**

Blood Thinners	
Apixaban (Eliquis)	Aspirin
Cilostazol (Pletal)	Clopidrogel (Plavix)
Dabigatran (Pradaxa)	Dipyridamole (Persantine)
Prasugrel (Effient)	Rivaroxaban (Xarelto)
Ticagrelor (Trintellix)	Ticlopidine (Ticlid)
Warfarin (Coumadin)	

Herbal and Dietary Supplements

Supplement	Effects / Risk
Chondroitin	Increased risk of bleeding, increased blood pressure
Chromium	Increased risk of bleeding
Cysteine	Increased risk of clotting
Echinacea	Poor wound healing
Ephedra	Increased heart rate, increased blood pressure
Garlic	Increased risk of bleeding
Ginkgo	Increased risk of bleeding, increased heart rate, decreased blood pressure
Ginseng	Increased risk of bleeding, increased blood pressure
Glucosamine	Increased risk of bleeding, increased blood pressure
Kava	Increased level of sedation, muscle weakness
Omega 3 fatty acid	Increased risk of bleeding
St. John's Wort	Many drug interactions
Valerian	Increased level of sedation

To Contact CPM/PAT

- For questions or scheduling:
 - Cleveland Medical Center: 216-286-6763
 - Located in Humphrey 1635
 - Ahuja Medical Center: 216-593-1595
 - Located on the first floor behind the main registration desk
 - St. John Medical Center: 440-827-5207
 - Located on first floor in the outpatient area
- If you need to contact another location, please call your surgeon's office

COVID testing

- COVID-19 testing may be required for surgery
- Please discuss with your surgeon's office whether you need a pre-operative COVID testing appointment
 - If you do need tested, the COVID test is to be completed within 48-72 hours of your surgery/procedure

(Policy subject to change)

Before Surgery

- Pre-op bathing with Hibiclens (CHG) as instructed x5 days prior to surgery
- Sleep on clean sheets and wear clean pajamas to bed
- Pack items for your stay such as:
 - Comfortable, loose fitting clothes that are easy to get on and off
 - Non-skid footwear or shoes that don't slip off your feet
 - Photo ID and insurance card
 - Glasses, dentures, hearing aids (give these to your care partner during your surgery)
 - List of medications
 - CPAP machine (if applicable)
- Leave items of value at home (such as jewelry and money)

Day Before Surgery

- You will receive a call the afternoon before surgery telling you what time to arrive at the hospital
- Follow fluid intake instructions given to you by pre-admission testing or surgeon's office
- Use CHG Mouthwash as instructed
- **Do not eat anything after midnight, your surgery may be cancelled**

Your Surgery

Morning of Surgery

- Use CHG Mouthwash as instructed
- **No food**; Follow fluid intake instructions given to you by pre-admission testing or surgeon's office
- Take medications as instructed
- To avoid surgical cancellations, report to the Admitting Desk at the time you were given

In the Pre-Operative Area

- You will change into a hospital gown, lay in a hospital bed, meet your nurse and other members of the surgical team
- An anesthesiologist will meet with you and discuss the best anesthetic for you – typically general anesthesia for spine surgery
- An IV will be placed
- Your care partner can be with you at this time
- Your surgeon will come answer questions, sign consent and mark surgical site

Post-Anesthesia Care Unit

- Also called the Recovery Room or PACU
- You will be closely monitored until you are stable and ready to go to your hospital room
 - Frequent vital sign checks and questions about your pain
 - May have oxygen by mask or tubing in the nose
 - Will have Sequential Compression Devices on your legs to help prevent blood clots
- Often in PACU for 1-3 hours

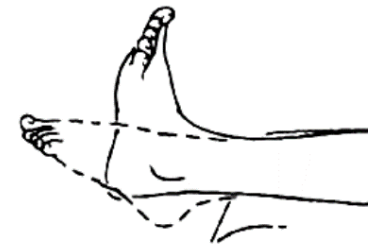
Visitation

- Care partners will be notified when surgery is complete and you are moved from the OR to PACU
 - You will be asked to consent to text messages so that your care partner can be updated
- Care partners will also be notified when you are ready to go to the floor
- For more information on our current visitor policy, please go to:
<https://www.uhhospitals.org/healthcare-update/general-visitor-information>

After Surgery & Your Hospital Stay

You Will...

- Begin with ice chips and clear fluid; once you have bowel sounds, you can eat solid foods after cervical surgery. You must be passing gas to eat solid foods after lumbar surgery.
- Complete ankle pumps frequently to prevent blood clots.
- Be assisted by nursing for positioning in the bed, getting up to the chair, or to the bathroom.
- Begin mobility out of bed with assistance of the nursing staff.



You May Have...

- An incentive spirometer for deep breathing exercise.
- A Sequential Compression Device (SCD) machine
 - SCDs increase circulation (moves blood back to your heart) by gently squeezing your legs
 - Helps reduce swelling, numbness, & move fluids from the area
 - Helps prevent deep vein thrombosis (DVT)



Safety and Rounding

- Staff will be checking in on you regularly to make sure you have all items that you need, that your pain is controlled, you are comfortable and to see if you need to use the restroom. Please don't hesitate to call our for assistance if you need something.
- Always ask a staff member to assist you when getting out of bed, going to the bathroom, or moving around.

Post-operative Pain

- The pain you have after surgery is surgical pain, **not** the pre-operative pain you have today
- Surgical pain can be controlled with medications and will lessen each day, week to week
- You may still have nerve pain after surgery, as this takes time to resolve
- Pain may be replaced with numbness and/or tingling

Managing Your Pain

- You will frequently be asked to rate your pain on a scale from 0-10, with 10 being the worst.
- It is important to tell your nurse if you are having pain; there are medicines to treat these symptoms.
 - **Our goal is to manage pain, this does not mean you will be pain free.**

Pain Control After Surgery

IV Pain Medications

Morphine

Hydromorphone (Dilaudid)

Oral Pain Medications

Vicodin (Hydrocodone + Tylenol)

Percocet (Oxycodone + Tylenol)

Tramadol

Oxycontin

Gabapentin (Neurontin)

Methocarbamol (Robaxin)

Pregabalin (Lyrica)

Cyclobenzaprine (Flexeril)

Toradol (Ketorolac)

Ice/heat, positioning and mobility are great interventions to relieve pain.

If you are given a new medication that you are not familiar with ask your doctor, nurse or pharmacist.

Managing Side Effects

- To relieve **constipation**:
 - Bisacodyl (Dulcolax)
 - Docusate (Colace)
 - Milk of Magnesia
 - Fleet Enema
 - Magnesium Citrate
- To relieve **nausea and/or vomiting**:
 - Ondansetron (Zofran)
 - Promethazine (Phenergan)
- To relieve **itching**:
 - Diphenhydramine (Benadryl)

What to Expect

- Your time in the hospital is typically short and filled with many activities both during the day and throughout the night.
- Morning blood draw (5am – 6am)
- Rounding by the staff
 - Monitoring vital signs and assessing pain level
- Administration of medications
- Removal of Foley catheter and/or surgical drain (if applicable)
- Therapy sessions with physical and occupational therapy
- Discharge planning

Therapy & Spine Precautions

Therapy Goals

- Safety
- Independent mobility
- Independent self care
- Increased muscle strength
- Understanding and following spine precautions

Try to make progress each day!

Walking

- You may feel light-headed and nauseous the first time you stand. If this happens, tell the nurse/therapist.
- Many spine patients use a walker after surgery. Please use your walker unless your therapist or surgeon instructs you otherwise.
- If you have stairs in your home, you will practice them prior to your discharge as well as transfers in and out of the car.



Transfers

- Term used to describe movement from one surface to another, such as in and out of bed, on and off the commode (toilet) and up and down from a chair
- Therapists will teach you the proper mechanics and provide help as needed. **You will learn specific spine precautions as needed (BLT – no bending, lifting, twisting)**
- You will be encouraged to be up and sitting in a chair as often as you can

Activities of Daily Living (ADLs)

- ADLs include activities such as bathing, dressing and going to the bathroom
- An Occupational Therapist will:
 - Teach and help you practice ADLs using your spine precautions
 - Tell you where to get assistive items you may need
- Bring comfortable, loose fitting clothes with you to the hospital to get dressed while you are here

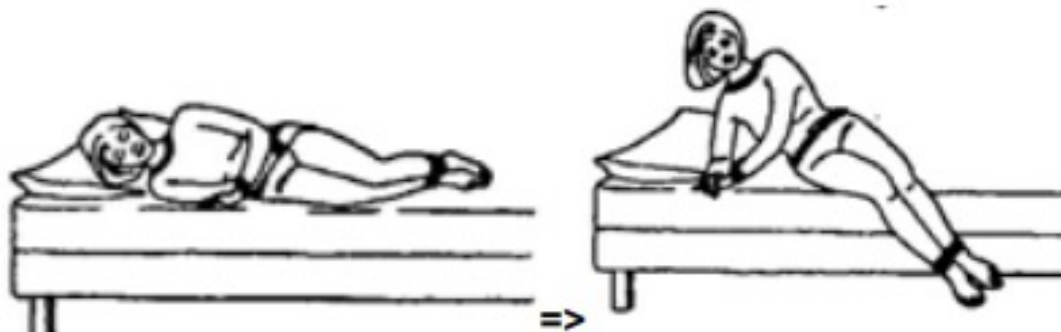
Positioning

- Lying- Usually whatever is comfortable is acceptable
 - While lying on your back, a pillow under your knees may help to relieve pressure on your lower back.
 - If lying on your side, you should always have a pillow between your knees. A pillow under your waist may also be helpful.



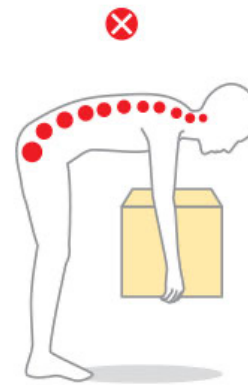
Positioning

- Turning in Bed- ‘Log-roll’ at all times. Bend your knees up, bringing one leg up at a time. Keep your knees in line with your body, reach across with your arm and then roll using your knees and shoulders at the same time to avoid twisting in the middle.
- Lying to Sitting- Once you have log-rolled onto your side, drop your feet over the side of the bed and at the same time push up with your arms to sit up.



Positioning

- Bending over is another daily necessity that must be reduced
- If you must get down low, try to use your knees



Discharge Planning

Home Care Services

- **If needed**, home care services will be set up with a Transitional Care Coordinator before you leave the hospital
 - Typically begin 24-48 hours after discharge
 - Home Care services and duration will depend on individual need and insurance coverage
 - May Include:
 - Physical Therapist – review exercises and spine precautions
 - Occupational Therapist – practice and advance your activities of daily living
 - Nurse – assess your vital signs and incision, review medications

Recovery

Incision Care



- Incision (wound) closure
 - Most are closed with sutures under the skin that dissolve over time. They do not need to be removed.
 - If there is a Prineo dressing (or steri-strips) over your incision, do not remove it with your dressing changes. They will slowly lift away from the skin over time.
 - If sutures/staples are used, please keep your incision dry and covered. Follow your surgeon's instructions regarding showering. Sutures/staples are often removed 2-3 weeks after surgery.
- **If you leave the hospital with a dressing in place, change your dressing daily until your incision is no longer draining then it can be left open to air.**

Incision Care

- Incisions may be covered in adhesive glue that will fall off on its own, do not pick or remove any of the material.
- You may shower when **drainage has stopped or whenever your surgeon has instructed you to take your first shower.**
 - Do not submerge your incision (no tub baths, pools or hot tubs).
 - Do not scrub the incision. Pat it dry.
 - Do not use powder, lotion or creams on or around the incision.
- A shower chair, grab bars and a raised toilet seat may be helpful to purchase. Talk with your occupational therapist during your hospital stay.

Constipation After Surgery

- Constipation is common after having surgery. It is important that you take steps to prevent constipation.
- Decreased movement, anesthesia and narcotic pain medication can increase the risk of constipation after surgery.
 - Use prescribed medications to prevent constipation
 - Increase fluid intake
 - Move around regularly
- Contact your surgeon's office if your constipation is not responsive to a stool softener and/or laxative.

Follow up Appointments

- Follow-up appointments are scheduled with your surgeon's office after your surgery. This information will be included in your discharge instructions.
 - Call your surgeon's office to make, confirm or change an appointment.
- The initial post-operative visit may be scheduled with the PA-C
- At your follow up appointment, you may receive information about starting Outpatient Physical Therapy.

While at Home it is Important to:

- Follow your spine precautions and avoid bending, lifting, or twisting for your own safety
- Take pain medications as needed
- Use heat or ice for comfort
- Increase your activities gradually
- Do not sit for longer than 1 hour at a time. Walk for 15 minutes each hour that you are awake.

When to Call Your Surgeon

- Temperature greater than 102°F
- New persistent pain, weakness or numbness in your arms or legs
- If the incision edges open up or become very red or firm
- Any drainage that lasts more than 1 week
- Inability to urinate (unable to pee)
- Issues with constipation (unable to have a bowel movement)
- Swelling in your legs and/or calves that is not relieved by elevating your feet
- Prescriptions are required for narcotic pain pill refills. **Please allow for 2 to 3 days if you need a narcotic refill.**

When to Call Your Surgeon

- Numbness/sensory loss in your genitals
- Loss of bowel/bladder control
- Difficulty swallowing (for cervical patients)
- A severe headache that won't go away

Call 9-1-1

- Call 9-1-1 if you experience:
 - Chest Pain
 - Shortness of breath
 - Difficulty breathing

Lifting Restrictions

- Avoid excessive pushing, pulling, lifting and twisting
 - Do not lift more than 10 lbs.
- Each provider has their own timeframe regarding these restriction guidelines.
- **Please call your surgeon's office or refer to your discharge instructions to clarify your specific restrictions.**

Restrictions

- No heavy housework/yardwork
- If you had a fusion surgery
 - Do not use any form of nicotine (smoke/chew/patch/gum/vape)
 - Nicotine inhibits bone healing
 - Fusion rates are cut in half in nicotine users- this leads to hardware failure, prolonged pain, and a large risk for revision surgery
 - NO NSAIDs (Advil, Ibuprofen, Aleve...etc.) for 8-12 weeks dependent on your surgeon's recommendation
 - They have a bad effect on healing of fusion



If you have a Cervical Collar

- **Discuss directly with your surgeon on instructions for use**
- Typically worn until follow up appointment
- May remove for hygiene



Resuming Activity

- Talk with your surgeon before and after surgery about the activities you would like to do
- Ask your surgeon about:
 - Swimming
 - Returning to work
 - Resuming other physical activities
 - Driving
- By 3 months, most people are back to work and completing household and leisure activities. You may return to activity as tolerated.

Take good care of your spine...
and it will take care of you!



Walking is an excellent form of exercise!

Understanding Surgery

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- Please discuss with your provider the type of surgical approach that will be done for you.
 - If you would like more information about your procedure, you can watch one of our patient education videos:
<https://www.uhhospitals.org/services/spine-services/patient-resources>

Thank you

We thank you for choosing University Hospitals
as your facility of choice for your spine surgery.

