# Pre-operative Spine Education



# **Objectives for Today**

- Understanding your procedure
- What to expect during the hospital stay
- Physical and Occupational therapy

- Pain management
- Discharge planning
- Caring for yourself at home
- Role of the caregiver

PLEASE NOTE: This is general information that applies to many different spine surgeries. Always follow the information/instructions provided by your Surgeon or Physician Assistant.

# **Preparing for Surgery**

# The Guidebook includes information about...

- Frequently Asked Questions (FAQs)
- Pre-op Process
- Hospital Stay
- Post-op Care
- Role of the Caregiver
- Caring for Yourself at Home
- Body Mechanics



### **Understanding the Procedure**

Spine surgery may be recommended if non-surgical treatment such as medications and physical therapy fails to relieve symptoms.

The goal of surgery is to lessen pain and restore function.

Spine surgery is done to achieve one or more of the following: to take pressure off the nerve(s), realign the spine, or stabilize the spine.

The following procedures are done alone or in combination.

- Laminectomy
- Discectomy
- Fusion instrumentation
- Bone Grafts

# **Terminology**

Bone Graft: donor bone or your own bone

 Fusion: creating a bridge between 2 or more vertebrae

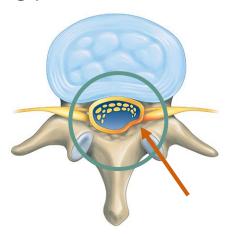
 Hardware: titanium rods, plates, screws, or cages (spacer)

### Lamina:

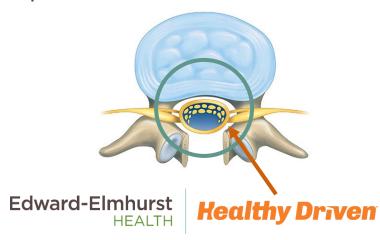
 A thin plate or layer of bone

### **Laminectomy:**

 Removal of a piece of the lamina to take pressure off the nerve Before- bony overgrowth is putting pressure on the nerve



After- surgeon has removed bony overgrowth, relieving the pressure on the nerve

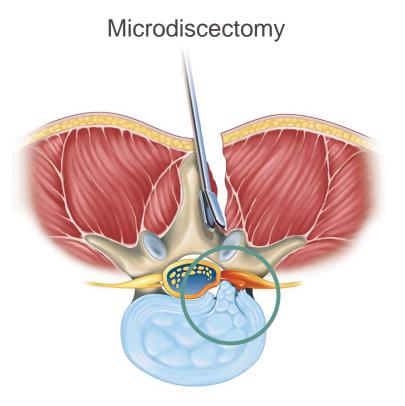


#### Disc:

- Provides cushion between bony vertebrae
- Assists in mobility of spine
- Can bulge or rupture and cause pressure on the nerve

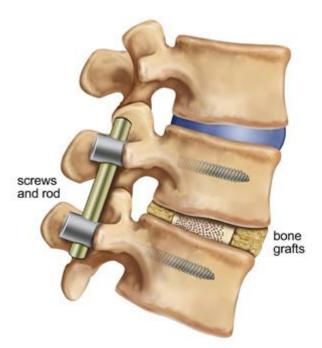
#### **Discectomy:**

- Removal of ruptured or bulging disc material
- Relieves pressure on the nerve



#### **Fusion:**

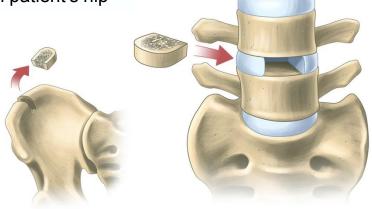
- Fusion is a surgical technique in which one or more of the vertebrae of the spine are united together ("fused") so that motion no longer occurs between them
- The vertebrae fuse over time as the bone grows together
- Bone or bone growth substances are used to assist in bone growth
- In the meantime, metal constructs keep the spine stable and aligned
- Surgeons use many approaches (front, side, back)
- Approach is determined by location of problem

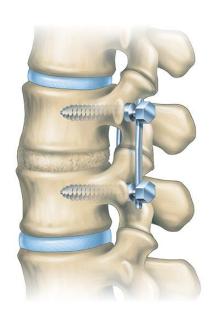


#### **Bone Graft**

#### **Instrumented Fusion**

Bone graft – Cadaver allograft or bone harvested from patient's hip





Lumbar



Cervical



### **Medical Clearance**

- Appointment with your primary care doctor
- Instructions to stop or change any medications
- Lab work
- EKG, Chest X-ray
- Type and Screen for blood products if appropriate
- Additional Consults



# Phone Calls from Pre-Admission Team

- Insurance
- Health History
- Medication History
- Advance Directives
- Any preparation:
  - Antimicrobial baths
  - Medications
  - Over the counter supplements



# **Evening Before Surgery**

- The Pre-Admission Testing office will call you with instructions in the afternoon the day before surgery (or the Friday before if your surgery is on a Monday)
- Medication Review
- Follow instructions on:
  - When to stop eating and drinking
  - Medications to take/stop
  - When to arrive, where to park and enter building

# Day of Surgery

- Report to Prep-op/Recovery area
- Check in at the Surgery desk
- 1-2 people may accompany you to the pre-op room where you will be prepared for surgery
- Surgeon will speak with a person you designate once surgery is completed

### **Pre-operative**

- Hospital gown
- Start your IV(s)
- Review Health History and Medications
- Additional lab work as needed
- Antibiotic
- Site marking
- Infection prevention—cleanse skin, clip hair
- Meet the team
- General Anesthesia
  - IV Sedation
  - Mild Sore Throat
  - Discuss Pain Management Concerns



# **Operating Room**

- People in room
  - RNs
  - Surgeon, Assistant
  - Anesthesia
  - Radiology
  - Neuro Monitoring
- You will fall asleep on cart
- Staff will transfer and position you on surgical table
- Wake up in your hospital bed



### Recovery Room...PACU

- 1-2 Hour Stay
- Stabilize Vital Signs
- Neuromuscular Assessment
- Pain and symptom management
- Comfort Measures
- Cold therapy
- Brace or Collar in place as prescribed by surgeon

# **Preventing Post-op Complications**

Your surgeon and the hospital staff will do everything they can to prevent complications, but you play an important role...

#### Blood Clots

- Sequential Compression Device
- Walking
- Compression Stockings (per MD order)
- Ankle Pump Exercises

#### Pneumonia

- Incentive Spirometer
- Coughing & Deep Breathing
- Walking



### **Preventing Complications**

### Nausea and Vomiting

- Medications
- Advancing Diet

#### Infection

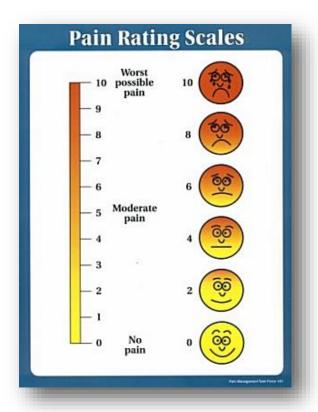
- Vital Signs
- Inspect Incision
- Review lab work
- Antibiotics

#### Abdominal Distention

- IV Fluids
- Walking
- Stool Softeners

### **Pain Scale**

- 0 No Pain
- 1-3 Mild Pain
- 4-7 Moderate Pain
- 8-10 Severe Pain



It is important to control your pain so you are comfortable, can move and participate in therapy, and can heal.

### Remember...

- Goals of pain management:
  - Manage the pain so that you can eat, sleep and move around
  - Be able to actively participate in your recovery
- "Nerve pain" can persist immediately after surgery or be slightly worse due to manipulation of the nerve during surgery

# Patient Controlled Analgesia "PCA"

You may have a PCA or your nurse may administer your IV pain medications.

- Intermittent doses of medication delivered into your IV
- Patient controls administration
- Machine is programmed to allow administration of medication only at prescribed intervals.
- Push the button when you need it.
- Additional medications may be available if pain persists



### The Next Day...

- Transition to Oral Pain Medication
- Variety of medications used
  - Narcotics, anti-inflammatory, anti-spasm drugs
  - May be given on a schedule and/or as needed
- Available approximately every 4 hours
- Constipation
  - Common side effect of narcotics
  - Minimize with medication, activity, fluids

### **Types of Pain**

#### **Incisional**

- Soreness, Pressure
- Treat with pain medications
  vs.

#### **Muscle Spasm**

- Tight, grabbing sensation
- Treat with muscle relaxant
  vs.

#### **Nerve Pain**

- Numbness and tingling
- Shooting, burning pain
- Treat with medications



### **Additional Comfort Measures**

- Cold therapy
  - Polar Care
  - Ice packs
- Positioning
- Sometimes <u>heat</u> at area of <u>spasm</u> only not on incision



# Managing Pain is a Partnership

We will do all we can to ensure your comfort and safety, but we need your help:

- Intercept the pain; ask for medication when the pain <u>starts</u> to increase – do not wait
- Take your pain medication on a regular basis
- Tell the nurse if the medication is not effective
- Ask questions; be sure you understand the pain management efforts that are in place

# **Spine Care Unit**

- Patient-directed visiting
- Staff knowledgeable in care of spine patients
- Healing environment
- Education folder to guide you through your stay





# **Coaches are Important**

A "coach" is a family member or friend who can help you during your hospital stay by...

- Providing comfort & motivation
- Observing therapy sessions
- Helping you gain confidence
- Listening to information about how to care for yourself
- Preparing for transition home



# Day of Surgery

#### What to expect:

- Sleepy, but awake
- Progression of diet (Room Service)
- Possible catheter for urine (removed as soon as possible)
- Dressing, wound drain
- Pain Management

#### **Activity:**

- Turn side to side
- Sit on side of bed
- Out of bed to chair
- Walk to bathroom



# **Physical Therapy**

Usually begins the day of surgery

### Then, twice a day

- Getting in/out of bed
- Getting in/out of a chair
- Walking distances
- Stairs
- Car Transfers

### **Spine Precautions—No BLT**

Usually for Spinal Fusion Surgery

NO Bending

NO Lifting

NO Twisting



### **Occupational Therapy**

Usually one visit during your hospital stay.

- Bathing
- Dressing
- Hygiene



### **Adaptive Devices**

If needed

### **Post-op Braces**







# Need for brace is determined by your surgeon based on the surgical procedure.

- The brace helps protect the fusion by limiting your ability to move
- Follow your surgeon's instructions regarding when you should wear your brace

### Once You are Home...

 For the weeks follow surgery, the focus will be on walking

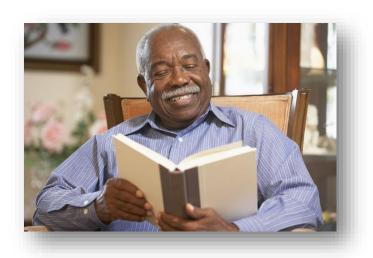
Your surgeon *may* recommend Outpatient Therapy:

- Core stabilization
- Typically begins 4-6 weeks post-op

# **Preparing your Home**

Think about what you will need after surgery and prepare your home *before* surgery...

- Chair with arm rests
- Recliner chairs OK
- Special bed not necessary
- Remove throw rugs
- Stock up on pre-made meals
- Arrange for someone to care for pets
- Rearrange closets, dressers, kitchen, bathroom so that most frequently used items are within easy reach



# What to Bring to the Hospital

- Loose-fitting clothes (shorts, T-shirts)
- MRI (films or CD) if not done at Elmhurst
- Any shoe/leg orthotics or walker you currently use
- Your back or neck brace (if given to you before surgery)
- ID bracelet
- Copy of Advance Directives
- Please leave valuables, cash and medications at home

# **Transition to Home**

# Making the discharge plan:

### With input of:

- Patient
- Family
- Surgeon
- Primary Nurse
- Physical Therapist
- Case Management



### **Transition to Home**

### Discharge planning options:

- Home
- Home with Home Health
- Sub-acute Rehab Facility
- Equipment that may be needed
- Insurance plans and authorizations

# Role of the Caregiver or "Coach" after Discharge

- Assist with mobility
- Evaluate incision
- Dressing changes
- Observe patient
- Assist with shopping and errands
- Transportation to followup appointments



# **Dressing Change Procedure**

- Various dressings
- Specific care instructions provided at discharge
- Notify doctor of:
  - Fever
  - Redness
  - Drainage
  - Odor of incision/drainage
  - Increased pain at incision





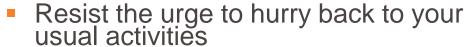
# Caring for Yourself at Home

- Change position hourly
- Wear your brace as instructed
- Fusion patients apply spine precautions to all activities
- Walk daily and steadily; increase your distance
- Limit stair use to 2x day for the first week at home



The Road to Recovery...





 Protect your investment - follow your surgeon's instructions and spine precautions to promote optimum healing

DO NOT SMOKE



### **Medications**

 Take pain medication regularly exactly as prescribed

- Speak to your surgeon about when to decrease or discontinue pain meds
- Take stool softeners
- Avoid Motrin, Advil, Aspirin-type meds for 3 months if you have had a fusion

### Discharge to Home

- Front seat of your own vehicle
- Tip for easy in/out: use a plastic garbage bag on the seat
- Stop along the way if your ride is more than 2 hours or you become uncomfortable



# **Good Luck with Your Surgery!**

# Thank you for coming!