Spine Surgery Patient Guide

Long Beach Memorial
MemorialCare® Health System

Spine Center

(562) 933-4014

Table of Contents

Section One: Welcome

- Welcome to the Spine Center 3
- Overview of the Spine Center 3
- Your Spine Care Team 4
- Spine Anatomy, Spine Disease and Conditions ..... 5 - 6
- Types of Spine Surgery 7

Section Two: Preparing for Surgery

- Medical Clearance 8
- Complete Pre-Operative Tests 8
- Preparing an Advance Directive 9
- Become Smoke Free 10
- Preparing Your Home for Your Return from the Hospital 11
- Attend Pre-Operative Class 11
- What to Bring to the Hospital 13
- Two Days Before Surgery 13
- The Night Before Surgery 13
- The Morning of Surgery 13

Section Three: Your Hospital Stay

- Surgical Preparation Area (Checking-In) 14
- Spine Unit 14
- Understanding Anesthesia 16
- Understanding Pain Management 18
- Bed Positioning and Transfers ..... 19 - 22
- Lumbar and Cervical Precautions ..... 25 - 26

Section Four: After Spine Surgery

- Activity 27
- Incision Care 27
- Braces 28
- Assistive Walking Devices 29
- Adaptive Equipment 30
- Using Adaptive Equipment ..... 31 - 36

Section Five: Activities of Daily Living ..... 37 - 40

Section Six: General Complications ..... 41 - 42

Section Seven: Exercise Instructions ..... 43 - 49

- Medicine List ..... 54 - 55

Dear Patient,

The Spine Center at Long Beach Memorial is pleased to provide you with our Spine Surgery Patient Guide. We have developed this guide to serve as a resource for answering questions for you and your family.

Our team is ready to assist you if you have any questions during your hospital stay. If you need additional information, not covered in this guide, please call your surgeon.

Preparing for surgery is important for your recovery. Your stay in the hospital will be short and recovery will continue at home.

It is important for you to make a commitment to follow your doctor's instructions for an optimal surgical outcome. Please plan for assistance or support that you anticipate you will need in your home after surgery.

Consider meal preparation, transportation and other home activities for which you might require assistance.

Remember, this is a *guide*. Your physician, physician assistant, nurses, or therapists may add to, or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information.

The guide does contain a lot of information, we recommend reading the entire guide, at a pace that suits you. Keep your guide as a handy reference for at least the first year after your surgery.

Thank you,
Spine Care Team

Welcome to the Spine Center

The instructions in this booklet were developed by a team of surgeons, nurses and therapists. They are basic guidelines to help you achieve a positive outcome from your procedure.

Your surgeon may give you different or additional instructions that are specific to your condition or procedure. **Always follow your surgeon's instruction,** even when they differ from those outlined in this book.

Our team of specialists is dedicated to performing state-of-the-art procedures to improve function and decrease pain in patients with disorders of the back and neck.

Overview of the Spine Center

- Dedicated nurses and therapists trained to work with spine patients
- Promotes wellness
- Private patient rooms
- Pre-operative education class
- Family and friends participating as "coaches" in the recovery process
- A Care Coordinator who coordinates preoperative care and discharge planning
- A comprehensive, written patient guide to assist you pre-operatively, during the hospital stay and post discharge
- Reunion luncheons for former patients and coaches

Your Spine Care Team

- **Neurosurgeon or Orthopedic Surgeon**
  - Performs surgery and directs your care
  - Visits you daily during hospital stay
  - Conducts follow-up care at their office post discharge
- **Nursing Staff (Registered Nurse or Nursing Assistants)**
  - Coordinates and provides patient care in the hospital
  - Provides information to the health care team regarding your progress
  - Provides communication to you and your family information regarding plan of care
  - Is available to answer questions during your hospital stay
- **Physical Therapist (PT)**
  - Evaluates your physical capabilities
  - Instructs and assists you with a walking program
  - Instructs you in a home activity program
  - Identifies possible home needs
- **Spine Care Coordinator**
  - Coordinates your hospital care with the team
  - Coordinates your discharge plan
  - Is your advocate throughout the course of treatment from surgery to discharge
  - Available to answer questions for patients, families and physicians
  - **Contact directly at (562) 933-4014.**

Spine Anatomy

The spinal column, or the vertebrae, consists of 24 separate bones along with the fused bones of the sacrum and coccyx. The vertebral column is a strong, flexible rod that protects the spinal cord, supports the head and provides an attachment for the ribs. There are four major components of the spine: the vertebrae, joints, discs and nerves.

- **Vertebrae**
  The spine is made of 33 vertebrae stacked upon each other to support the entire body. These vertebrae include: seven cervical located in your neck, twelve thoracic in your chest area, five lumbar in your lower back, five fused sacral and four fused coccygeal located in your buttock region. The vertebrae link together forming a “tunnel” that protects the nerves and spinal cord.

- **Joints**
  Joints, or the spaces between two or more bones, are found throughout the body. Joints allow different degrees of movements that change the position of bones, since bones are too rigid to bend without damage. Joints are located at each vertebrae and provide flexibility and stability within the vertebral column.

- **Discs**
  Discs located in between the vertebrae act as "shock absorbers," preventing the vertebrae from rubbing together. Discs function as the "glue" that holds the vertebrae together and they also provide flexibility within the vertebral column. Discs often show the first signs of "wear and tear" associated with the aging process, since they are constantly "squeezed" and "stretched" under the forces of the vertebrae.

- **Nerves**
  At each disc level, a pair of spinal nerves exits and passes into the arms and legs. The spinal cord (which runs through the middle of the vertebrae) and the spinal nerves act as a "telephone" to allow messages, or impulses, to travel to the brain and then to the arms and legs to control sensation and movement.

Spine Diseases and Conditions

Back and neck pain can be caused by a number of factors to include, but not limited to:

- Injuries (falls, sports)
- Aging (arthritis, osteoporosis, lack of exercise, bad posture)
- Smoking (can accelerate disc degeneration)
- Soft tissue supports (muscles, ligaments, tendons)
- Congenital conditions

- **Disc Herniation**
  A herniated disc is a rupture or tear of the cartilage that surrounds the vertebral discs. Pressure from the vertebrae above and below the affected disc squeezes the cushioning substance (nucleus pulposus) out of the disc. The nucleus pulposus can press against spinal nerve roots. This can cause severe leg or arm pain (radiculopathy). A radiculopathy may occur spontaneously or with trauma. When the disc herniates backward, to the right or to the left it may impinge or "pinch" on a spinal nerve and/or the spinal cord, causing symptoms.

  Not all disc herniations cause impingement. As many as 30 percent of all adults have symptom — free bulges or minor herniations in the cervical area. Also, as many as 30 - 60 percent of all adults have disc bulges in their lower back that are entirely symptom free. Radiculopathy most commonly affects people between the ages of 30 and 50.

- **Arthritis**
  With age and normal wear and tear, the cartilage that lines the joints of the spine erodes, bones can then rub together and cause inflammation and pain. Bone spurs (abnormal bone growth on normal bone) may also develop, this is your body's way of trying to heal the affected area. A bone spur is not sharp. It is actually smooth to the touch. But because a bone spur grows on top of normal bone where it doesn't belong, it can press on other bones, as well as on ligaments, tendons, and nerves, wearing them down and causing pain.

- **Spinal Instability**
  Excessive motion of vertebral bodies in relation to one another is considered spinal instability. This can be the result of an injury, degenerative process, tumor, previous surgery or congenital condition.

- **Spinal Stenosis**
  The spinal canal is the passageway where the spinal cord and nerve roots reside. Spinal stenosis results when the canal is narrowed. The narrowing may result from disc protrusions or herniations, thickening of the ligaments within the canal, movement of the vertebral bodies or osteophytes (bone spurs) growing into the canal. This is common with age and may cause pressure on the nerves, swelling, pain, numbness or weakness.

- **Spondylolisthesis**
  Spondylolisthesis occurs when one vertebral body slides forward relative to the one below it. It can be congenital (present at birth) or develop in adolescence or adulthood. The disorder may result from the physical stresses to the spine from physical activity, trauma, and general wear and tear.

- **Osteoporosis**
  Osteoporosis is the thinning of bone. It is generally associated with aging. Metabolic imbalance, genetics and medications are also factors. Osteoporosis is not painful by itself. However, it may lead to spinal fractures that can cause back pain. The fractures may also result in spinal deformity that can lead to a hunched back and/or decreased height.

Types of Spine Surgery

- **Laminectomy**
  Removal of the portion of the vertebrae called the lamina, to relieve pressure on the nerves. The lamina are small flat portions of vertebral bone over the nerve roots at the back of the spine. All or part of the lamina is removed through a 2 - 5 inch incision along the midline of the spine allowing more space for the nerve root and promote healing.

Before Laminectomy

After Laminectomy

- **Discectomy**
  Removal of herniated or damaged portion of a disc in the spine that is causing pressure on the nerves.

- **Kyphoplasty**
  Procedure to repair vertebral compression fractures. A balloon-like device is used to create space in the compressed vertebra, and then a cement-like material is injected into the space relieving pain. May be performed by a surgeon or an interventional radiologist.

- **Fusion**
  Permanently joins together two or more vertebrae so there is no movement between them, relieving pain. A graft (such as bone) is used to hold (fuse) the bones together permanently.

  Bone grafts may be the patient's own (autograft) bone, from a bone bank (allograft) or a synthetic product. Special metal cages that are packed with bone graft material may be inserted between the vertebrae.

- **Fixation**
  In some cases, metal plates, rods and screws may be used to keep the vertebrae from moving while the bone graft heals to promote successful fusion.

Preparing for Surgery

After your surgeon's office has scheduled you for spine surgery, you need to:

- ❑ **Complete Medical Clearance (if Instructed by your Surgeon)**
  When you were scheduled for surgery, you should have received a medical clearance letter from your surgeon, to provide to your primary care doctor or specialist, such as a cardiologist. Please follow the instructions in the letter.

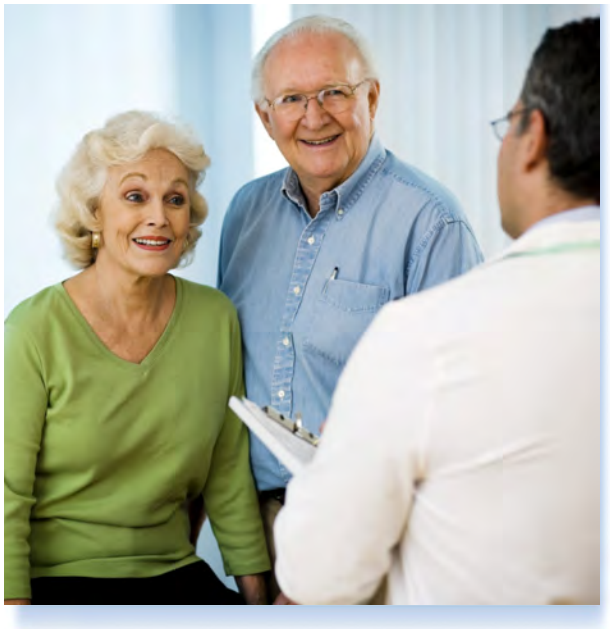
- ❑ **Complete Pre-op Tests**
  When you were scheduled for surgery, you should have received laboratory/EKG testing instructions from your surgeon.

- ❑ **Stop Medications that Increase Bleeding**
  Discontinue all anti-inflammatory medications such as aspirin, Motrin®, Naproxen, Vitamin E, etc. **10 days prior to surgery date**. These medications may cause increased bleeding. If you are taking a blood thinner, you will need special instructions for stopping the medication from the doctor who prescribes this medication for you.

- ❑ **Stop Taking Herbal Supplements**
  There are herbal medicines that can interfere with other medicines. Check with your doctor to see if you need to stop taking any of your herbal medicines before surgery.

  Examples of herbal medicines include, but are not limited to: echinacea, ginkgo, ginseng, ginger, licorice, garlic, valerian, St. John's® wort, ephedra, goldenseal, feverfew, saw palmetto, and kava-kava.

- ❑ **Complete the Medication List**
  On page 54 of this patient guide you will find a medication list. Please complete the sheet and bring it with you to your pre-op class. It is very important for you to provide accurate and honest information about the amount and types of medication you have been taking prior to surgery, especially those medications you are using to manage pain.



❑ Prepare an Advance Directive

An advance directive is a legal document, also known as a living will. Advance directives are a patient's right and a means of communicating to all caregivers the patient's wishes regarding health care. If a patient has a living will or has appointed a health care agent and is no longer able to express his or her wishes to the physician, family, or hospital staff, the medical center is committed to honoring the wishes of the patient as they are documented at the time the patient was able to make that determination.

There are different types of advance directives and you may wish to consult your attorney concerning the legal implications of each.

- **Living wills** are written instructions that explain your wishes for health care if you have a terminal condition or irreversible coma and are unable to communicate.
- **Appointment of a health care agent** (sometimes called a medical power of attorney) is a document that lets you name a person (your agent) to make medical decisions for you, if you become unable to do so.
- **Health care instructions** are your specific choices regarding use of life sustaining equipment, hydration and nutrition, and use of pain medications.

During your pre-admission (PREP) appointment to the hospital, you will be asked if you have an Advance Directive. If you do, please provide copies of the documents to the hospital so they can become a part of your medical record. Advance directives are not a requirement for hospital admission. In the Admissions packet you may obtain "The Five Wishes" which is an advanced directive form for your convenience.

❑ Become Smoke Free

If you are a smoker, you should stop using tobacco products. The tar, nicotine and carbon monoxide found in tobacco products have serious adverse effects on your blood vessels and thus impair the healing of wounds and bone grafts. In addition, continued tobacco use damages the other discs in your spine, leading to disease at other levels. Finally we have found that smokers experience a greater degree of pain than do non-smokers.

For a list of "Stop Smoking Programs" in California call: (800) 766-2888;
for hearing impaired call: (800) 933-4833.

Tips to Aid in Quitting:

- Decide to quit
- Choose the date
- Cut down the amount you smoke by limiting the area where you can smoke
- Give yourself a reward for each day without cigarettes

When You are Ready:

- Throw away all your cigarettes
- Throw away all ashtrays
- Don't smoke in your home
- Don't put yourself in situations where others smoke, such as bars and parties
- Remind yourself that this can be done — be positive
- Take it one day at a time — if you slip — just get right back to your decision to quit
- If you need to consider aids to quit, such as, over the counter chewing gum or prescription aids, such as patches — check with your doctor

❑ Prepare Your Home for your Return from the Hospital

It is important to have your house ready for your arrival back home. Use this checklist as your guide.

- Put things that you use often (like an iron or coffee pot) on a shelf or surface that is easy to reach
- Consider installing hand railings on stairs inside and outside
- Clean, do the laundry and put it away
- Put clean linens on the bed
- Prepare meals and freeze them in single serving containers
- Pick up throw rugs and tack down loose carpeting
- Remove electrical cords and other obstructions from walkways
- Install night-lights in bathrooms, bedrooms and hallways
- Install grab bars in the shower/bathtub
- Put adhesive slip strips in the bottom of the tub
- Arrange to have someone collect your mail and take care of pets

❑ Practice Breathing Exercises

To decrease your risk of a possible post operative pneumonia you will need to deep breathe frequently after surgery. Tips for deep breathing:

- To deep breathe, you must use the muscles of your abdomen and chest
- Breathe in through your nose as deep as you can, fully expanding your chest
- Let your breath out slowly through your mouth. As you breathe out, do it slowly and completely. Breathe out as if you were blowing out a candle (this is called “pursed lip breathing”). When you do this correctly, you should notice your stomach going in.
- Take a break and then repeat the exercise 10 times
- Once in the hospital you will receive an incentive spirometer, this is a hand held device with a straw like mouth piece. You will need to “suck” as if using a straw which facilitates deep breathing.

❑ Attend Pre-Operative Class

An education class is held for patients and coaches scheduled for spine surgery. You should plan to attend a class 1 - 2 weeks prior to your surgery date. Class is held at the hospital on the spine unit. You will only need to attend one class. Members of the care team will be there to answer your questions. Pre-operative class outline:

- Overview of our program
- Role of your "Coach" or Caregiver
- Pain management
- Reviewing your preoperative exercises
- Learn about assistive devices and braces
- Caring for yourself at home
- Discharge planning

❑ Complete Hospital "PREP" (Pre-admission Process)

- Two part process involving the admitting department and the pre-op nurses
- Often referred to as registration/pre admit
- Takes 45 minutes to one hour
- Can be done by phone or in person (live)
- Best if you have an appointment, whether in person or phone
- Call **(562) 933-1042** to schedule an appointment
- Needs to be done before date of surgery, best if done a week in advance
- You will need to provide your complete list of medications/supplements/vitamins

❑ Read Through your Guidebook

Contact the Spine Coordinator at (562) 933-4014 with any questions or concerns or if you need additional resources.

❑ Establish your Coach

A coach is the person that you select to be most supportive to you in the process of spine surgery. You can have more than one coach.

Usually a relative or friend, coaches are invited and encouraged to attend the pre-op education class with you, be present and participate during your hospital stay obtaining instruction and information promoting a smooth transition home.

Post discharge, coaches support patients in various ways, depending on the individual needs of the patient.

❑ Plan for Discharge from the Hospital

Please have someone arranged to pick you up. You will receive written discharge instructions concerning medications, follow-up with your doctor and wound care.

❑ Start Pre-Operative Exercises

Exercising before surgery can help you build up the necessary strength and endurance for a more optimal recovery from spine surgery. Try to incorporate the exercises in section seven on page 43, as well as some aerobic exercise (i.e.,: walking, water aerobics, recumbent bike) into your daily routine.

- **What to Bring to the Hospital:**
  - ❑ Personal hygiene items (toothbrush, shaving equipment, etc.)
  - ❑ Comfortable, loose fitting clothing
  - ❑ Special shoe/orthotic if you require them pre-op
  - ❑ Your CPAP if you use one for sleep apnea
  - ❑ A copy of your Advance Directive
  - ❑ Any co-payment that you are responsible for
  - ❑ ID and insurance cards if you have completed your pre-admission process by phone

- **Special Instructions:**
  - Please leave jewelry and valuables at home. (If you must bring your wallet etc., because you are alone with no coach, deposit your personal belongings with hospital security upon admission and retrieve at discharge.
  - Nail polish (including toenails) and artificial nails may be left on.

- **Two Days Before Surgery:**
  - **Do not shave below the neck**

- **The Night Before Surgery:**
  - Take a shower
  - **Do NOT** apply lotions, powders, deodorant or perfume. Wait about an hour, then use one package of your skin prep wipes applying as indicated on the instruction sheet
  - **Do NOT** eat or drink anything **after midnight, even water**, unless otherwise instructed to do so. Do not chew gum or suck hard candy. You may brush your teeth, rinse your mouth, but do not swallow any water.

- **The Morning of Surgery:**

  Do NOT:
  - **Do NOT** shower. Use the last package of your skin prep wipes, applying as indicated on the instruction sheet
  - **Do NOT** use lotion, perfume or deodorant
  - **Do NOT** take any oral medication for diabetes
  - **Do NOT** apply make up to your face

  Do:
  - **Do** take prescribed blood pressure, heart, breathing or seizure medications with a sip of water
  - **Call the Spine Coordinator at (562) 933-4014** with any questions or concerns regarding your pending surgery

Your Hospital Stay

- **Surgical Preparation Area (SPA)**
  Check in at the desk in Surgery Pavilion at your assigned time. You are taken to the surgical preparation area (SPA) area, you will change into a hospital gown, an IV (intravenous) line will be started, your health history and lab test results reviewed, you will meet your anesthesiologist and your operating room nurse, your surgeon/physician assistant will mark the site of surgery on your body.

- **Operating Room**
  Inside the operating room, you will be cared for by doctors, nurses, and skilled technicians. The total time required for surgery differs depending on the complexity of the procedure. Spine surgeries may be short in duration or may last for several hours.

- **Recovery in the PACU**
  Following surgery, you will be transported to the post anesthesia care unit (PACU). On average, you will spend 1 - 3 hours in the PACU while you recover from the effects of anesthesia. The nursing staff will monitor your progress as you emerge from anesthesia including vital signs, and pain and provide interventions.

- **Spine Unit**
  After your recovery in the PACU, you will be transferred to the inpatient nursing unit. Your stay on this unit will begin the postoperative/rehabilitation phase of your recovery. You will have a bandage over your incision, you **may** have a wound drain. If you had neck surgery, you may have a collar on. You will continue to have an IV for fluids/medications. You **may** have a urinary catheter. Compression devices to your legs are used to decrease your risk of a blood clot. You **may** be seen by physical therapy on the same day as surgery. They will do an evaluation, assist you out of bed and have you walk.

- **Rehabilitation Following Spine Surgery**
  Your motivation and participation in physical/occupational therapy are essential elements of your recovery. You must play an active role in every step of your rehabilitation. You and the team will work together to achieve important goals including regaining independence and mobility, developing a program for walking, understanding proper body mechanics and spine precautions.

  Walking is the most important exercise following spine surgery.

  Your therapist or nurse will help you sit up on the edge of the bed and stand. Each day, you will increase the amount of time and distance that you walk and track your distance on our walking board.

  We encourage you to be dressed in your own clothes each day and be out of bed. There is a recliner in each patient room for you to rest in when you are not doing some walking.

  Note: Please do not attempt to get out of bed on your own. Always call for assistance.

  CALL, DON'T FALL.

- **Discharge From The Hospital:**
  - **Home:**
    Have your transportation arranged. Discharge time is usually in the morning.
  - **Sub-Acute Rehab Facility (Skilled Nursing Facility):**
    Skilled nursing facility stays must be approved for medical necessity by your insurance company for financial coverage. Although you may desire to go to a skilled nursing facility when you are discharged, your progress will be monitored by your insurance company while you are in the hospital.

    Upon evaluation of your progress, either you will meet the criteria for admission to a skilled nursing facility or your insurance company may recommend that you return home with other care arrangements. Therefore, it is important for you to make alternative plans preoperatively for are at home.

    In the event a skilled nursing facility is not approved by your insurance company, you can choose to go and pay privately. Please keep in mind that the majority of our patients do so well that they do not meet the guidelines to qualify for skilled nursing facility. ***Also, keep in mind that insurance companies do not become involved in social issues, such as lack of caregiver, animals, etc. These are issues you will have to address before admission.***

- **Understanding Anesthesia**
  - **Who are the Anesthesiologists?**
    The hospital is staffed by board certified and board eligible physician anesthesiologists. Each member of the service is an individual practitioner with privileges to practice at this hospital.

  - **What Types of Anesthesia are Available?**
    Decisions regarding your anesthesia are tailored to your personal needs. The types available are:
    - **General anesthesia** provides loss of consciousness.
    - **Regional anesthesia** involves the injection of a local anesthetic to provide numbness, loss of pain, or loss of sensation to a large region of the body. Regional anesthetic techniques include spinal blocks and epidural blocks.

  - **Will I Have any Side Effects?**
    Your anesthesiologist will discuss the risks and benefits associated with the different anesthetic options as well as any complications or side effects that can occur with each type of anesthetic. Nausea or vomiting may be a side effect related to anesthesia, and medications to treat nausea and vomiting will be given, if needed.

  - **What will Happen Before my Surgery?**
    You will meet your anesthesiologist immediately before your surgery. Your anesthesiologist will review all information needed to evaluate your general health. This will include your medical history, laboratory test results, allergies, and current medications. With this information, the anesthesiologist will determine the type of anesthesia best suited for you. He or she will also answer any further questions you may have.

    You also will meet your surgical nurses. Intravenous (IV) fluids will be started and preoperative medications may be given, if needed. Once in the operating room, monitoring devices will be attached such as a blood pressure cuff, EKG, and other devices for your safety. At this point, you will be ready for anesthesia. If you would like to speak to your anesthesiologist before you are admitted to the hospital, this can be arranged through your surgeon's office.

  - **During Surgery, what Does my Anesthesiologist do?**
    Your anesthesiologist is responsible for your comfort and well-being before, during, and immediately after your surgical procedure. In the operating room, the anesthesiologist will manage vital functions, including heart rate and rhythm, blood pressure, body temperature and breathing. The anesthesiologist is also responsible for fluid and blood replacement when necessary.

  - **What Does my Anesthesiologist do after my Surgery?**
    After surgery, your anesthesiologist will accompany you to the post anesthesia care unit (PACU) recovery room. He/she will continue to direct your care as you recover from anesthesia. Your anesthesiologist will do a follow up either in person or via reviewing your medical record.

- **May I Choose an Anesthesiologist?**
  Although most patients are assigned an anesthesiologist, you may choose one based on personal preference or insurance considerations. If you have questions about your insurance coverage or medical plan participation by the anesthesiologist, please contact your insurance company for guidance.

  Requests for specific anesthesiologists should be submitted in advance through your surgeon's office for coordination with the anesthesiologist's availability.

Understanding Pain Management

It is our goal to help you ***manage*** your pain after your surgery. You will have some discomfort after your operation, but using various modalities, the goal is to ***manage*** pain, allowing you to be functional (walking, performing activities of daily living).

Patients who have taken large doses of narcotics for months or years have a much harder time keeping comfortable after surgery. *It is very important for you to provide accurate/honest information to your surgeon about the amount of pain medication you have been taking prior to your procedure.*

Inaccurate information could result in a needlessly painful and stressful post-operative course. It may be necessary to taper or discontinue your use of narcotics prior to surgery.

Our approach to pain management is multi-modal, meaning a combination of modalities including positioning, ice, medication, walking and distraction. Your assessment of your pain using a pain scale tool helps the team understand the severity of your pain, guiding them to make the best decision to help manage it.

Your Role in Pain Management

Using the number scale illustrated above, "0" means you have no pain and "10" means you are in the worst pain possible, how would you rate your pain? With good communication about your pain, the team can make adjustments to make you more comfortable.

Try to relax; when you are relaxed medication works better. Consider distractions such as listening to bio feedback, music, watching TV or interacting with family and friends. Being honest and accurate in reporting all medications you are using prior to your procedure is of utmost importance in your post operative pain management.

Types of Pain

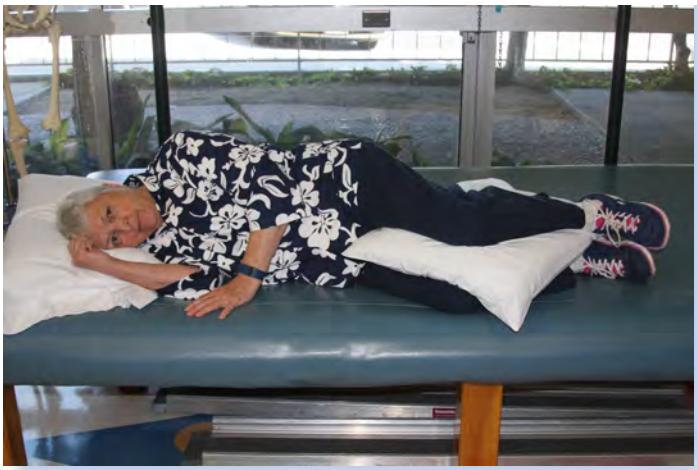
- **Incisional:** often described as feeling soreness
- **Nerve:** often described as "burning" or "needles and pins"
- **Muscle spasm:** often described as "grabbing" sensation that makes movement uncomfortable

After Spine Surgery

- **Bed Positioning**

  - **Lying on Your Back**
    - Keep a pillow under your knees or thighs and under your neck when lying on your back. This supports your back and reduces stress on your spine.
    - When you change positions, tighten your abdominal muscles and log roll keeping your hips inline with your shoulders.

  - **Lying on Your Side**
    - With your knees slightly bent up toward your chest, place a pillow between your knees and one under your neck. This helps to keep optimal alignment of your spine.
    - Remember to tighten the abdominal muscles and log roll when changing positions.
    - Adding a pillow under your arm will increase comfort and further reduce stress on your spine.



  - **Lying on Your Stomach**
    - Avoid this position. It places too much strain on your lower back.
    - If you absolutely cannot avoid this position, place a pillow under your stomach to provide support for your back.

- **Getting Out of Bed**
  - To move in and out of bed, you must "log roll" to prevent bending or twisting of your spine.
  - Start by bending your knees up while lying on your back.
  - Now roll onto your side keeping your hips, shoulders and ears moving together to avoid twisting (i.e., roll like a log).

1

2

  - As you slide your feet off the bed, use your arms to push up into a sitting position.
  - Scoot your hips forward until your feet are on the floor and you feel stable.
  - Using your arms to help scoot typically helps minimize your surgical pain.
  - Scoot far enough forward so your feet are flat on the floor (heels included) to support your lower back.

3

4

- **Returning Back to Bed**
  - Reverse the technique for returning to bed.
  - Back up to the bed until you feel the bed at the back of your legs.
  - Reach for the bed with your hands as you lower to a sitting position on the bed.
  - Scoot your hips back on the bed. The further back you scoot, the easier it will be for you to lay down on your side.
  - As you lean down on your arm, bring your feet up onto the bed until you are lying down on your side.
  - Then, roll onto your back keeping your shoulders, hips and ears in alignment.

- **Transfers**

  - **Into a Chair/Commode**
    - Back up to the chair/commode, until you feel it touch the back of your legs. With your hands, reach behind you to grasp the armrests. Using your arms and legs, begin to squat and lower yourself into the chair/commode.
    - Tighten your stomach muscles to provide support for the lower spine.
    - Your feet should be firmly resting on the floor or a foot stool.

  - **Helpful Tips with Sitting**
    - Do not let your feet dangle when sitting. Have your feet firmly supported to prevent pulling at your back.
    - Protect your back by sitting in a chair with a back support. You can use a pillow or a towel as a lumbar roll.

  - **Out of a Chair/Commode**
    - Scoot forward until you are sitting near the edge of the chair or commode.
    - With your hands on the armrests push yourself up into the standing position.
    - Straighten your legs and shift your weight forward over your feet.
    - Bring your hands to the walker as you are moving into the standing position.

- **Using a Walker**

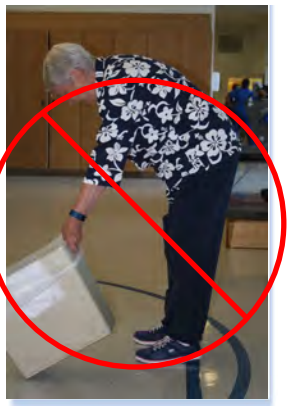
  - **When Using a Walker, it is Important to Remember a Few Key Rules:**
    - Push up from the surface you are sitting on (e.g., the bed or chair). Avoid pulling on the walker to come to a standing position. The walker could easily tip backwards and will not offer you optimal support to stand.
    - It is easiest to stand up from chairs with armrests. The armrests give you better leverage and control to stand up and sit down safely.
    - The walker takes pressure off your back. Push down through the walker with your arms as needed without raising your shoulders or leaning too far forward.
    - Keep your feet near the back of the walker frame or rear legs. You don't want to be too close or too far away from the walker. Stay inside the walker.
    - Stand up straight when walking. Keep your shoulders back, head up, chest up, and stomach muscles tight.
    - If you have wheels on your walker, there is no need to lift the walker — just push the walker forward as you walk.
    - Your pace of walking is up to you. Think about increasing your pace and stride to what feels normal to you. Typically taking smaller steps and walking slower does not necessarily make it easier to walk. You may end up expending more energy than necessary. Move at your own pace and at your own comfort level.
    - Each day, increase the frequency and distance you walk. Go at your own pace.
    - Frequent walks are very important to help keep you moving and decrease your stiffness and pain. Take six to eight walks per day at home. During at least one of the walks, you want to increase the distance as tolerated.

- **Using a Walker (Continued)**

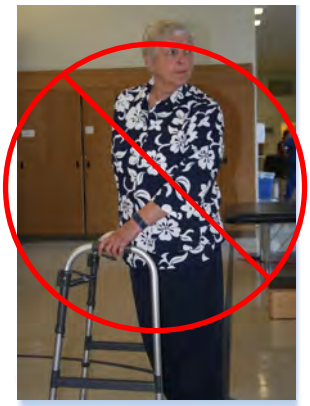
- **Lumbar Spinal Precautions: No Bending, Lifting or Twisting (B.L.T)**

  - **No Bending**
    - Keep your shoulders in line with your hips. Avoid leaning forward while standing up or reaching down to the floor while you sit down. Avoid leaning to the side.
    - Practice optimal body mechanics by keeping your chest up, shoulders back and abdominal muscles tight.

  - **No Lifting**
    - Do not lift more than 5 - 10 pounds for 1 - 2 months after surgery.
    - To lift an object keep chest upright, bend at the knees and hips and hold the object close to the body.



  - **No Twisting**
    - Keep your shoulders and hips pointing in the same direction.
    - To look behind you or to either side, you must turn your entire body. Do not just turn your head and shoulders.



- **Cervical spine precautions: No Bending, Lifting or Twisting (B.L.T.)**

  - **No Bending**
    - Keep head straight and facing forward.
    - Do not tilt head side-to-side, forward or backward.
    - Practice body mechanics by keeping chest up, shoulders back and abdominal muscles tight. This helps maintain neutral spine position and reduces stress on spine.
  - **No Lifting**
    - Do not lift more than 10 pounds for one to two months after surgery.
    - To lift an object, keep chest upright, bend at knees and hips and hold object close to body.
  - **No Twisting**
    - Keep shoulders and hips pointing in the same direction.
    - To look behind you or to either side, turn entire body. Do not just turn your head.

After Care at Home

- **Activity**
  - Do not sit for more than one hour at a time
  - Continue ankle pump exercises
  - Continue to ice for 20 minute intervals
  - If you have a brace/collar, wear as prescribed by your doctor
  - Do not twist, bend, or lift more than 10 pounds
  - Sexual activity: resume as directed by your surgeon. Spine precautions also apply to sexual intercourse. Positions must maintain proper body alignment
  - Walking is encouraged. Be cautious of curbs, gravel surfaces or other uneven terrain. Use common sense, moderation is key
  - You may climb stairs with caution
  - Do not drive or return to work until your doctor gives you permission

- **Incision Care**
  - Your surgeon will provide discharge instructions regarding care of your incision
  - Wash your hands before and after caring for your incision

- **Notify your Surgeon if you Develop:**
  - Increased swelling and redness at incision site
  - Sudden onset of increased pain at/around incisional area
  - Sudden onset of drainage when there had been none
  - Change in color, amount or odor of drainage
  - Fever greater that 101 degrees Fahrenheit

- **Compression Stockings**
  - If you were provided with TED hose, (white, elastic compression hose):
    - Wear the stockings continuously, removing for one to two hours twice a day
    - Notify your physician if you notice increased pain or swelling in either leg
    - Ask your surgeon when you can discontinue the stockings

- **Signs of a *Possible* Blood Clot in Legs**
  - Swelling in thigh, calf, or ankle that does not go down with elevation. Pain, heat and tenderness in calf, back of knee or groin area

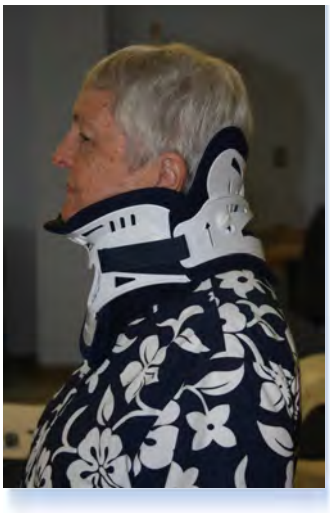
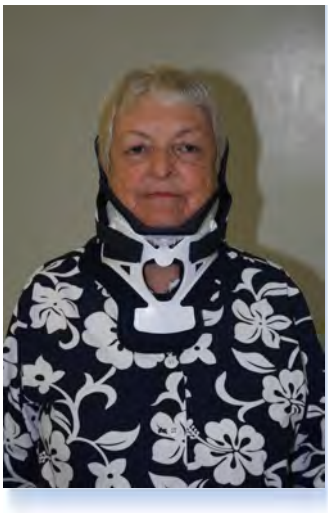
- **To Help Decrease your Risk of Blood Clots:**
  - Perform ankle pumps
  - Walk at regular, frequent intervals during the day (every 2-3 hours)
  - Wear your compression stockings

- **Pulmonary Embolus**

  A blood clot that travels to the lungs. **This is an emergency and you should CALL 911 if suspected**.

  - **Signs of a possible pulmonary embolus:**
    - Sudden chest pain
    - Difficult and/or rapid breathing
    - Shortness of breath
    - Sweating
    - Confusion

- **Braces**
  - Your surgeon **may** order a brace for you to wear.
    - Cervical procedures: Soft or hard collars are dispensed at the hospital. Your surgeon will direct which collar you may need and when you need to wear it.

    - For thoracic/lumbar procedures: If bracing will be necessary for you, you will be directed by your surgeon's staff to be fitted preoperatively by an orthotist. Your surgeon will direct you as to when you should start wearing your brace.

- **Assistive Walking Devices**
  - **Front wheeled walker**

  - **Single point cane**

- **Adaptive Equipment**

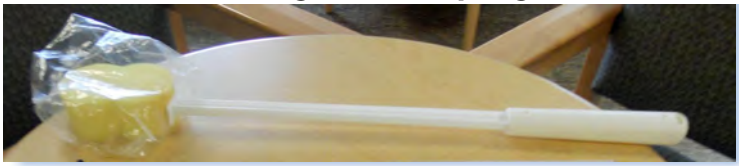
  - **3-in-1 Commode**

  - **Long handled shoe horn**

  - **Reacher**

  - **Sock aid**

  - **Long handled sponge**



- **Using Adaptive Equipment**
  - **Using a Reacher**
    - Using a reacher limits the amount of bending required to dress.
    - Sit down in a chair with your back supported.
    - Use the reacher to hold the front of your undergarments or pants.
    - Bring the garment over one foot at a time pulling the underwear, then pants up to your thighs.
    - Stand up, squat to reach your clothing and pull up both garments at the same time.
    - Reverse the process to remove your clothing.

  - **Using a Reacher to Pick Up Items**
    A reacher helps you obtain those countless items that fall while you are under "no bending" restrictions. Use it as an arm extension to reach to the floor.

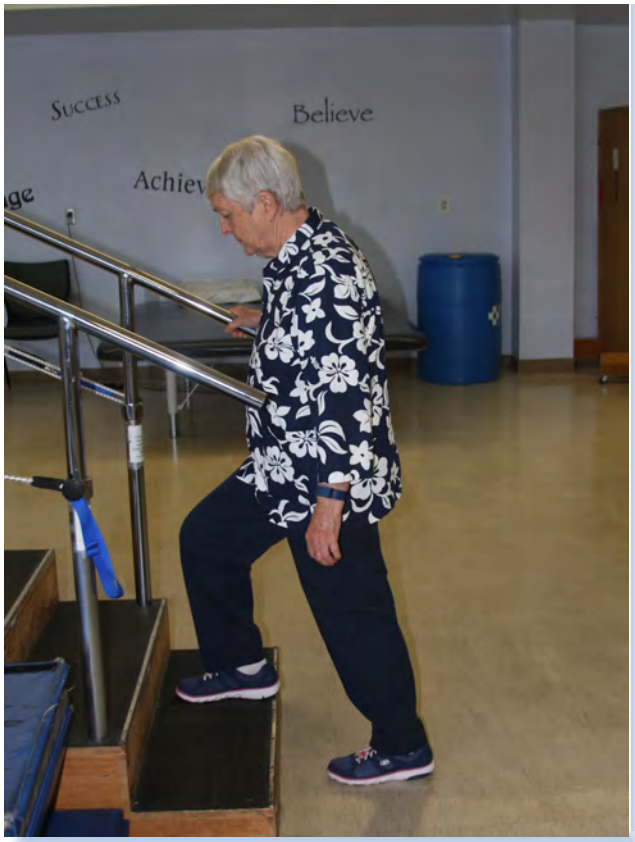
- **Using a Sock Aid**
  - Using a sock aid helps you reach your feet without bending.
  - Sit supported in a chair and hold the sock aid between your knees.
  - Slide the sock onto the plastic cuff making sure to pull the toes of the sock all the way onto the sock aid.
  - Hold the ropes and drop the sock aid down to your foot.
  - Place your foot into the cuff and pull up on the ropes as you point your toes down until the sock is on your foot.
  - Let go of one rope and pull the cuff back onto your lap to don the other sock.

1

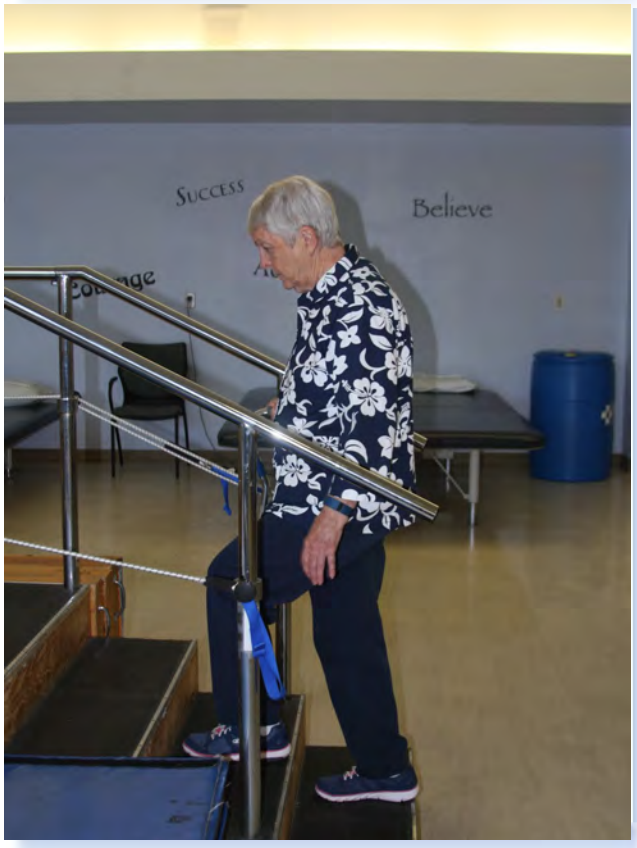
2

- **Removing a Sock with the Reacher**
  Use the black hook on your reacher to push your sock over the back of your heel. You can continue pushing the sock completely off your foot or use the jaw of the reacher to pull the sock completely off your foot.

- **Negotiating Consecutive Steps**
  - Use a handrail, cane and/or your coach for assistance.
  - If one leg feels weaker than the other, go up the steps with your stronger leg first and down the steps with your weaker leg first. "Up with the Good and Down with the Bad."
  - If you feel unsteady, take one step at a time. This will make negotiating steps easier and safer for you.
  - Concentrate on what you are doing. Do not hurry.
  - Since you cannot bend your neck to look down, feel the step with your feet



- **Helpful Stair Tips**
  - Keep the steps clear of objects or loose items.
  - Plan ahead. Right after surgery keep items in areas where you need them so that you can limit stair use.
  - Install one or two handrails. Two handrails will increase the ease and safety with steps.
  - Have someone assist or spot you as you feel necessary or indicated by your therapist. This person should stand behind and slightly to the side of you when going up the steps. When going down the steps, the person should be in front of you.



- **Negotiating a Curb or One Single Platform Step While Using a Walker**
  - Move close to the step/curb
  - Place the entire walker over the curb onto the sidewalk
    - Make sure all four prongs/wheels are on the curb
  - Push down through the walker towards the ground
  - Step up with the stronger leg first, then follow with the other leg
  - Reverse this process for going down the stairs
    - Place your walker below the step, then step down leading with the weak leg first

Going up one step with front wheel walker

Going down one step with front wheel walker

- **Bathing**
  - **Stepping In and Out of the Tub**
    - If your shower is part of the tub, you should hold onto the front wall of the shower and step in or out sideways versus stepping in forward. This side-step places much less stress and motion on your lower spine.
    - If you have a walk-in shower stall, step in as usual making sure not to twist as you turn to the controls.
    - You may want to have a bathtub or shower seat available for the first few days that you shower. You can borrow these types of items or buy them at most drug stores, medical supply stores or even home improvement centers. If you have a small patio resin/plastic chair, it can work for this purpose as well.
    - You are not allowed to take a tub bath or swim for at least 3 weeks until your doctor clears you to do this.

- **Into the Car**
  - Back up to the car seat until you feel it at the back of your legs.
  - Reach a hand behind you for the back of the seat and the other hand to a secure a spot either on the frame or dashboard. (The door and walker are not secure options. If you need to use them, have someone hold the "unsteady" objects).
  - Lower yourself slowly to sitting.
  - Scoot your hips back until you are securely on the seat.
  - Leading with your hips, bring one foot into the car at a time until you are facing forward. Prevent twisting by keeping your shoulders, hips, and ears pointing in the same direction. You may want to recline the seat to increase the ease of lifting your legs.

- **Out of the Car**
  When getting out of the car bring your legs out one at a time. Make sure to lead with your hips and shoulders and do not twist your back. Place one hand on the back of the seat and one hand on the frame or dashboard. Push up to standing. Reach for the walker when you are stable.

- **Helpful Tips with Car Transfers**
  - Have an empty plastic bag on the seat to help you slide in or out.
  - Have the seat positioned all the way back so you have maximum leg clearance.
  - If you have to have one hand on the walker for leverage, have someone hold the walker down on the front bar for stability.

Your doctor will determine when you can return to driving. You need to have full neurologic function and minimal pain or discomfort before driving. You also will need to discontinue taking medications that may affect your driving skills and safety.

Activities of Daily Living

This section will give you some general tips on how to practice and adapt safe body mechanics to your everyday work activities.

NOTE: There is more than one correct way to do a task. It depends on your abilities. You may need to alter ways of moving based on your strength, flexibility, pain level, and/or other medical conditions.

- **Standing**
  - Do not lock your knees. A bent knee takes stress off your lower back.
  - Wear shoes that support your feet. This helps to align your spine.
  - If you must stand for long periods of time, raise one foot up slightly on a step or inside the frame of a cabinet. Resting a foot on a low shelf or stool can help reduce the pressure and constant forces placed on your spine. Shift feet often.
  - While standing, keep shoulders back so that they do not roll forward.
  - Keep back as upright as possible and keep your head and shoulders aligned with your hips.

- **Shaving**
  - Stay upright with one foot on ledge of cabinet under sink.

- **Showering**
  - When showering, try not to let your head bend forward or backwards if you have had neck surgery (i.e.,: washing hair).
  - If you have enough strength, squat down with knees or use a tub bench and/or a hand-held shower spout, so your neck remains straight.

- **Brushing Teeth**
  - While brushing teeth, stand up straight and keep knee bent with foot on cabinet lip.
  - To avoid bending too far forward, spit into a cup and use a cup for rinsing you mouth with water. You also can support your back by leaning one arm on the sink/counter as you spit into the sink. Bend at your knees, not your back.

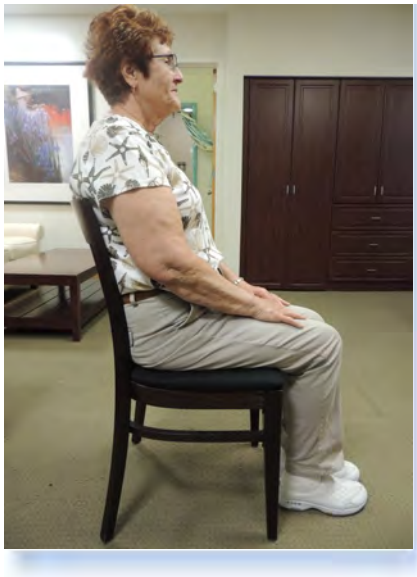
- **Ironing**
  - While ironing, keep ironing board waist level to avoid leaning forward at your back.

- **Standing Over Sink**
  - When standing over sink for prolonged periods of time, keep one foot propped on lip of cabinet to reduce the stress on your back.

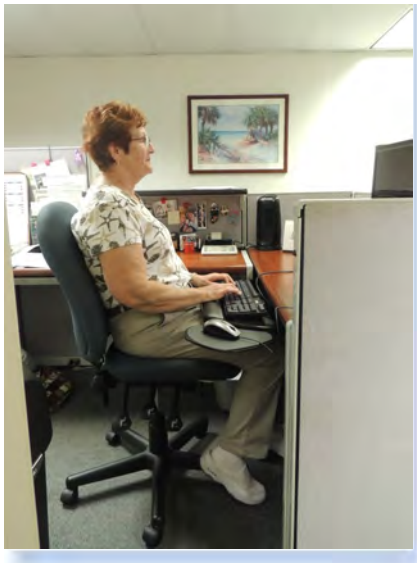
- **Sweeping/Mopping**
  - Use the full length of the broom to sweep.
  - Do not hold broom handle close to floor.
  - Try to keep your spine as straight as possible.
  - Sweep with the motion coming from your hips instead of your shoulders.
  - Do not get down on your knees to scrub floors, instead use a mop.

- **Holding a Child**
  - To maintain good posture and decrease stress on back, hold the baby/child to the center of your body, not propped on a hip.

- **Sitting**
  - Sit in chairs that support your back. Keep your ears in line with your hips. If needed, support your lumbar curve with a rolled-up towel or lumbar roll.
  - Your knees should be level with your hips. Your feet should be well supported on the floor to support your spine. If needed, place your feet up on a footrest.
  - Do not slouch. This puts your back out of alignment and adds extra stress to your lumbar curve. Don't sit too far away from the steering wheel when you drive.
  - Keep your, shoulders back and head centered over hips.
  - **Do not let shoulders roll forward.**



- **Computer Ergonomics**
  - Keep the computer screen at eye level.
  - Have a lumbar support for your chair.
  - Armrests need to be placed at a level that supports the forearms and keeps them at waist level. Forearms should not be pushing up into your shoulders.
  - Adjust the height of the chair so that the keyboard is level with forearms.
  - Maintain a good upright sitting posture.
  - Take frequent standing and rest breaks while working (every 20 - 30 minutes).



- **Bending**
  - Bend at your knees and hips instead of at your waist or back. Keep your chest and shoulders upright, centered over hips. This maintains your three natural spinal curves and keeps stress off your back.
  - Hold objects close to your body to limit strain on your back.
  - Do not bend over with legs straight. This motion puts great pressure on your lower back and can cause serious injury.

- **Refrigerator**
  - Bend at knees and hips to get things out of the lower portion of the refrigerator. It is better to squat or kneel instead of bending.

- **Dishwasher**
  - To get objects out of the dishwasher, squat or kneel down by door.
  - Try sitting on a swiveling office chair to unload the dishwasher. You can place the items up onto the counter by pivoting around with your feet.
  - Then stand and put items into the cupboard.

- **Tub Cleaning**
  - Do not overextend yourself when cleaning low places such as bathtubs.
  - Try to move lower by squatting and brace yourself with a fixed object.

- **Wiping Lower Surfaces**
  - When wiping or dusting low objects, do not bend the lower back.
  - Try to kneel or squat next to object.

- **Bathroom**
  - Do not get down on your knees to scrub bathtub. Use mop or other long-handled brushes.
  - Always use non-slip adhesive or rubber mats in tub or "aqua/water shoes."

- **Making Bed**
  - Do not bend over too far when making a bed.
  - Try to move sheet to corners and kneel or squat to pull them around mattress.

- **Lower Shelf**
  - When placing an object on a low shelf, always bend down on one knee.
  - Use other leg to support.
  - Never bend over from waist to place item on shelf.

- **Lifting**
  - Lift your body and the load at the same time. Let your leg do most of the lifting.
  - Squat to pick up a heavy object and let your leg muscles do the work. Hold heavy objects close to your body to keep your back aligned. Lift objects only to chest height.
  - Do not bend over at the waist to lift anything or twist while lifting. Avoid lifting heavy load above shoulder level.

- **Laundry — Unloading Wash**
  - To unload small items at bottom of washer, lift up one leg when reaching down into the washer.
  - Do not bend at the waist to reach into washer when loading or unloading.

- **Laundry — Loading Washer**
  - Place laundry basket so that bending and twisting can be avoided.
  - Place basket on top of washer or dryer instead of bending down with your back.

- **Unload Laundry — Dryer**
  - Do not bend at lower back when removing laundry from dryer.
  - Set basket on floor and squat or kneel next to basket when unloading dryer or frontload washer.
  - You could try a "golfer's bend" to unload the washer or dryer by supporting with one hand on the unit and holding the opposite leg straight out as you bend forward. This allows you to keep your back straight and take some of the pressure off your back with your arm supporting you.

- **Lifting Laundry**
  - Pick up laundry basket by squatting near it.
  - Do not bend over to lift.

- **Kneeling Lift**
  - With awkward objects, kneel and move object onto one knee.
  - Bring it close to your body and stand up.

General Complications of Spine Surgery

- **Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE)**
  A DVT is a blood clot that forms in a vein, usually in the calf of the leg. This can occur following surgery related to a decrease in physical activity and your body's clotting mechanism working hard to heal from surgery. A pulmonary embolism is a blood clot that travels to the lung, this is a medical emergency and requires immediate medical attention.

- **Wound Healing Problems**
  This is rare, but can occur any time an incision is made. Other factors that may increase a patients risk include: age, multiple prior spine procedures, diabetes, alcoholism, poor nutrition and smoking.

- **Infection**
  Developing an infection is a risk with any surgical procedure. Infections can be superficial or deep. Every precaution is taken to decrease the risk of infection with all of our patients, including preoperative screening for staph bacteria, preoperative skin preparation with chlorehexidine and administering IV antibiotics preoperatively and post operatively. Superficial infections are normally treated with oral antibiotics and wound care. Deeper infections require IV antibiotics for longer periods of time and sometimes require surgical intervention.

- **Lung Atelectasis/Pneumonia**
  Atelectasis occurs when the small sacs that allow normal gas exchange in the lung collapse and gas exchange is compromised. This can decrease the amount of oxygen circulating in the blood and increase the chance of developing pneumonia. Getting up, walking and performing incentive spirometer, deep breathing and coughing exercises are important to avoid developing atelectasis.

- **Ileus**
  An ileus is a condition where the normal motion (peristalsis) of the intestines slows or sometimes stops and can occur after surgery, related to decrease in physical activity and narcotic medications. This temporary condition can lead to a partial or complete blockage of the intestinal tract. Common symptoms of an ileus include abdominal discomfort, bloating and distention and inability to pass gas. Nausea and vomiting can occur, appetite is typically absent along with the inability to have a bowel movement. Treatment normally starts with increasing fluids, walking and using suppositories/enemas to get the intestines "moving."

- **Bleeding/Hematoma**
  Bleeding complications during or after surgery are rare, but do occur. Following surgery, there is a chance that a blood vessel can begin to bleed. The body often can reabsorb this blood, but sometimes the blood can collect and expand like a "water balloon," called a hematoma. The hematoma can put pressure on the nerves and/or other structures and sometimes needs to be drained with aspiration. Occasionally, surgical intervention is necessary to remove the hematoma.

- **Spinal Cord/Nerve Damage**
  Fortunately, serious neurological complications are very rare. However, there is a risk of injury to the spinal cord or nerves. Injury can occur from bumping or cutting the nerve tissue with a surgical instrument, from swelling around the nerve or from the formation of scar tissue. This can sometimes cause muscle weakness and a loss of sensation in an area supplied by the nerve.

- **Dural Tear/ Cerebrospinal Fluid (CSF) Leakage**
  The spinal cord and nerves are contained in a sac that is filled with a clear, water-like fluid. Occasionally, the sac is opened during surgery. If the opening does not fully close, it may require repair and a variable period of flat bedrest postoperatively for healing.

- **Problems with the Graft or Hardware**
  Fusion surgery requires that bone be grafted onto the spinal column. The bone graft comes from the bone bank (from donors) or can be harvested from another area of the patient's body. There is a risk of pain, infection or weakness in the area the graft is taken from.

- **Nonunion**
  It is possible in fusion surgeries that the bones do not fuse as planned. This is called nonunion or pseudoarthrosis and the operation may need to be repeated.

- **Ongoing Pain**
  The goal of surgery is to relieve pain, especially relief from nerve symptoms, (i.e.,: arm/leg pain). Not all patients experience complete pain relief with fusion surgeries. Successful fusion occurs in more than 80 percent of surgeries. But a solid fusion does not guarantee freedom from pain.

  Even if you have excellent relief of pain, the spine is not completely normal after fusion. Stiffening one segment of the spine with fusion may put additional strain on other areas. Other discs may have started to wear out and though they aren't causing you pain now, they may do so in the future. For these reasons, you may have continued back pain. However, most people can resume almost all of their normal activities after healing has taken place.

For Cervical Patients:

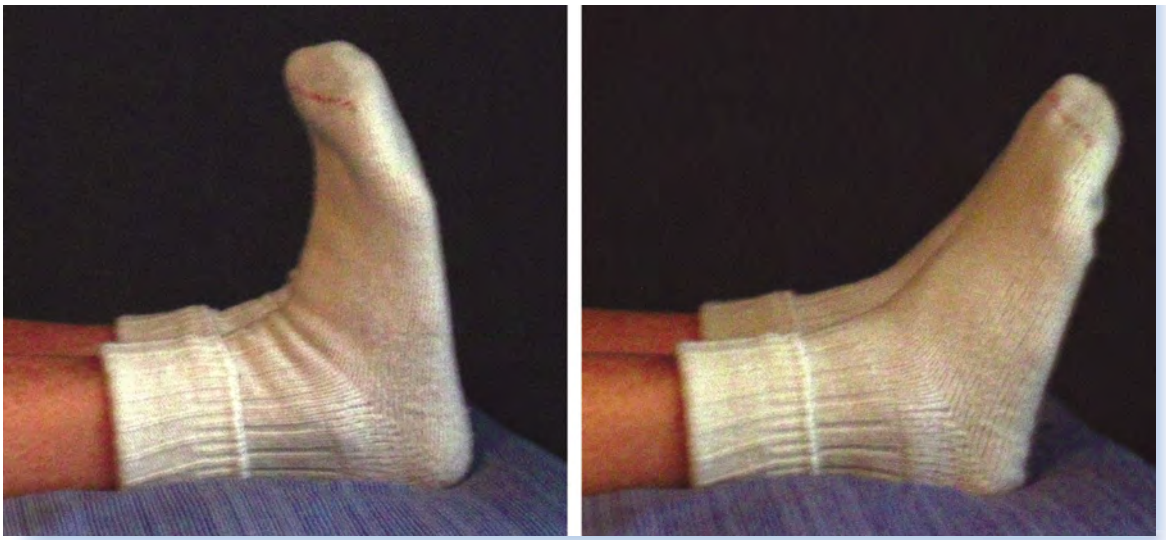
- **Difficulty Swallowing**
  Most patients report mild discomfort with swallowing for a few days after anterior cervical procedures. Occasionally, swallowing difficulties may be more significant and last for longer periods of time.

- **Voice**
  Some patients may experience hoarseness after anterior cervical procedures. Usually this resolves within a few days or weeks. In rare occasions, the hoarseness may be persist for longer periods of time or may even be permanent.

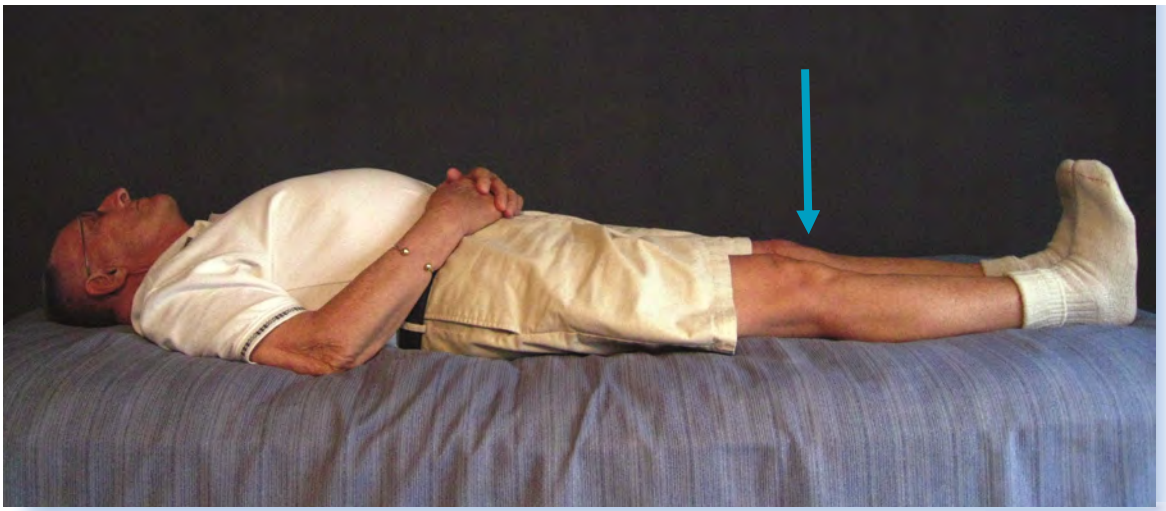
Exercise Instructions: Practice Before and After Surgery

Pre-Operative Exercises and Strengthening Exercises

1. **Ankle Pumps**
   Flex, bring toes toward head and point your feet. **Perform 2 sets of 15 twice a day.**



2. **Quad Sets (Knee Push-Downs)**
   Back lying, press knees into the mat by tightening the muscles on the front of the thigh (quadriceps). Do NOT hold breath. **Perform 2 sets of 15 twice a day. Hold for 5 seconds.**



3. **Armchair Push-ups**
   Sitting in a sturdy armchair with feet on the floor, scoot to the front of the seat and place your hands on the armrests. Straighten your arms raising your bottom up from seat as far as possible. Use your legs as needed to help you lift. Do not hold your breath or strain too hard. Making your arms stronger now will make your postop mobility easier. **Perform 2 sets of 15 twice a day.**

4. **Heel Slides - (Slide Heels Up and Down)**
   Back lying; slide your heel up the surface bending your knee. (use a strap if necessary). **Perform 2 sets of 15 twice a day.**

5. **Short Arc Quads**
   Back lying, place a 6 to 8 inch roll under the knee. Lift the foot from the surface, straightening the knee as far as possible. Do not raise thigh off roll, use a strap if necessary to assist. **Perform 2 sets of 15 twice a day.**

6. **Long Arc Quad Sets**
Sit with back against chair and thighs fully supported. Lift the foot up, straightening the knee. **Do not raise thigh off of chair**. Hold for a 5 count. **Perform 2 sets of 15 twice a day, on each leg.**

7. **Standing Heel/Toe Raises**
Stand, with a firm hold on the kitchen sink. Rise up on toes then back on heels. Stand as straight as possible. **Perform 2 sets of 15 twice a day.**

8. Standing Mini Squat

- Stand, with feet shoulder width apart, and holding on to the kitchen sink.
- Keep your heels on the floor as you bend your knees to a slight squat.
- Return to upright position tightening your buttocks and quads.
- Keep your body upright, heels on the floor and do not squat past 90 degrees hip flexion. **Perform 2 sets of 15 twice a day.**

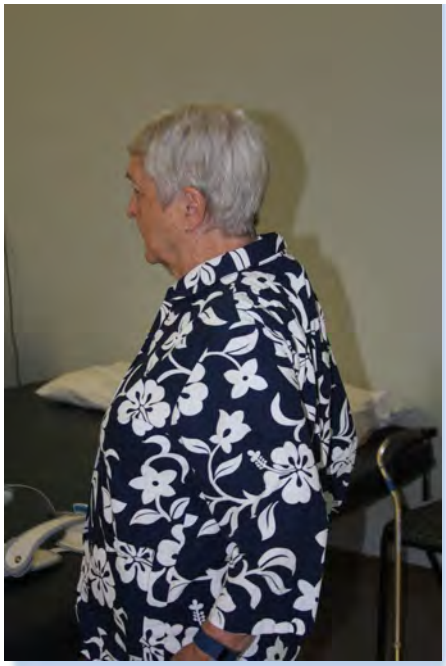
9. **Abdominal Sets (Tummy Tucks)**
Lie flat on back with knees bent. Tighten your stomach (abdominal) muscles by drawing your belly button towards your spine. You should feel your abdominal muscles tighten across the front. Hold for 10 - 15 seconds and continue to breathe comfortably. **Perform 2 sets of 15 twice a day.**

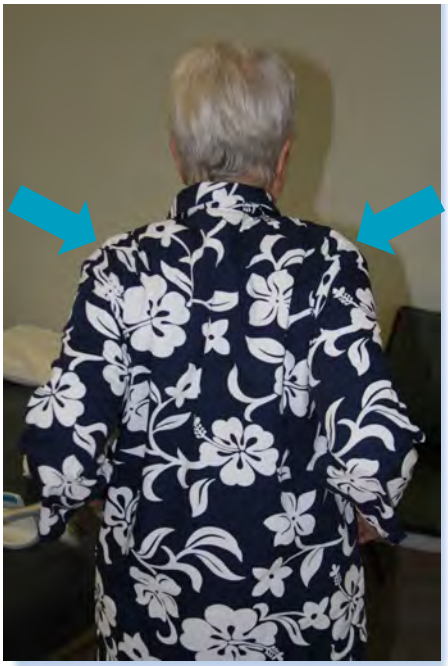
NOTE: *This exercise should be part of your lifelong goal to keep your abdominal muscles tightened all day long. The strengthened muscles provide continuous support for your spine.*

10. **Shoulder Circles**
Raise and lower shoulders using a circular motion. **Perform 2 sets of 15 twice a day.**

11. Scapular Retraction

Pinch your shoulder blades together. **Do NOT** shrug your shoulders. Hold for 10 - 15 seconds.
Perform 2 sets of 15 twice a day.





Notes:

Notes:

Notes:

Notes:

Medicine List

Please complete this form and bring to pre-op class.

Name:	Pain Management Physician:	Primary Care Physician:

Medication Name/Dosage	Instructions	Reason for Therapy	Duration
What is the name of your medication? What is the dosage?	What time(s) do you usually take this medication?	Why are you taking this medication?	How long have you been taking this medication?

- Over -

Medicine List

Please complete this form and bring to pre-op class.

Name:	Pain Management Physician:	Primary Care Physician:

Medication Name/Dosage	Instructions	Reason for Therapy	Duration
What is the name of your medication? What is the dosage?	What time(s) do you usually take this medication?	Why are you taking this medication?	How long have you been taking this medication?

Social History

Please complete this form and bring to pre-op class.

Do you drink alcohol? ____ Yes ____ No

How much do you drink:

_____ Glasses of Wine

_____ Cans of Beer

_____ Shot of Liquor

_____ Standard Drinks or Equivalent

_____ Everyday _____ Per Week _____ Per Month

Do you engage in street/recreational drug or substance use? _____ Yes _____ No

- What type/kind of substance?

_____ IV: _____

_____ Solvent Inhalents: _____

_____ Oral: _____

_____ Topical: _____

_____ Smoke: _____

Spine Center
Helpful Contacts

Spine Center Main Desk
4th Floor
(562) 933-4000

Spine Coordinator
Spine Center 4th Floor
(562) 933-4014

Physical Therapy
Spine Center 4th Floor
(562) 933-4011

Customer Service
(562) 933-9315

Security (Lost & Found)
(562) 933-0010

Medical Records
Ground Floor
(562) 933-1141

Patient Financial Services Office
If you have questions about our billing procedures, or about your hospital bill, please call the Patient Financial Services office at **(866) 283-3686**, Monday - Friday, 9 a.m. - 4 p.m. A copy of your bill is available upon request.

Shuttle Map Questions? Call Public Safety at (562) 933-0010.

Shuttle stops:

1. BirthCare Center
2. ER
3. Lakeview/Columbia
4. Miller Children's Main Entrance
5. Long Beach Memorial Main Hospital/East Entrance
6. Long Beach Memorial West Patio Entrance
7. MemorialCare Rehab Entrance
8. Todd Cancer Pavilion

Keys

1 Shuttle Stop
Blue Emergency Phone
Bus Stop
Stairs
Parking
Parking Pay Station
Walking Path

Shuttle Service:

Monday - Friday 6 a.m. - 6 p.m.
excludes holidays and weekends

If you have any questions regarding shuttle service, parking valet or security please contact Public Safety at (562) 933-0010.