Healthy Driven™
Edward-Elmhurst
HEALTH

LUMBAR SURGERY

THANK YOU

Thank you for choosing Edward-Elmhurst Health for your spine surgery. We know you have a choice of where to go for your procedure.

Our goal is to ensure that your stay with us is as pleasant and comfortable as possible. We do this through our unique program that helps to guide you through your journey – so you know what to expect before, during and after your spine surgery. Our dedicated care team is here for you every step of the way.

Again, we're so glad that you chose us for your care.

Your Care Team

Table of Contents

Table of Contents

Table of Contents

Section One:

General Information

Welcome

Thank you for choosing the Orthopedic Center. We follow a patient-focused clinical pathway, which accounts for our high levels of patient satisfaction. The Orthopedic Center has a specialized spine unit staffed by physicians, physician's assistants, nurses, patient care techs, physical and occupational therapists, in addition to other professionals, trained in the care of patients undergoing spine surgery.

More than 200,000 people undergo spine surgery each year. Most people undergo surgery due to pain that they no longer wish to tolerate. Many suffer from nerve compression, which may produce numbness, tingling or weakness. Surgery aims to relieve pain, restore independence and return patients to work or daily activities.

Most patients having lumbar spine surgery recover quickly. Some patients may be able to walk or even go home the day of surgery. Generally, patients can return to driving in two to three weeks; to sedentary jobs and activities in three to four weeks; and to vigorous physical activities in six to 12 weeks. Patients undergoing more complicated operations, such as lumbar spinal fusion, may require three to six months to return to full activities.

The Orthopedic Center has developed a comprehensive treatment program. We believe that patients play a key role in ensuring a successful recovery. Our goal is to involve our patients in their treatment through each step of the program. This Guidebook provides the information needed to maximize a safe and successful surgical experience.

Every detail, from pre-operative teaching to post-operative exercising, is considered and reviewed with each patient. The care coordinator will assist to guide patients through the surgical experience and help develop individualized discharge plans.

Features of the Center's program include:

- Nurses and therapists who are specialized in the care of spine surgery patients
- Private rooms
- Emphasis on individual care
- Family and friends participating as "coaches" in the recovery process
- A spine care coordinator who facilitates discharge planning
- A comprehensive patient Guidebook to follow pre-operatively and beyond

Using the Guidebook

Preparation, education, continuity of care, and a pre-planned discharge are essential for optimal results in spine surgery. Communication is essential to this process. The Guidebook is a communication tool for patients, physicians, physical and occupational therapists, and nurses. It is designed to educate you so that you know:

- What to expect every step of the way
- What you need to do
- How to care for yourself after spine surgery

Remember, this is a guide. Your physician, physician's assistant, nurse, or therapist may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your Guidebook as a handy reference for at least the first year after your surgery.

Instructions for Patients

- Read Sections 1 and 2 for general information.
- Use Section 2 as a checklist.
- Read Sections 3, 4, and 8 for surgical and post-op information.
- Read Sections 5, 6, and 7 for exercise and activity guidelines.
- Bring your Guidebook with you to the hospital, outpatient therapy, rehab facilities, and all physician visits.

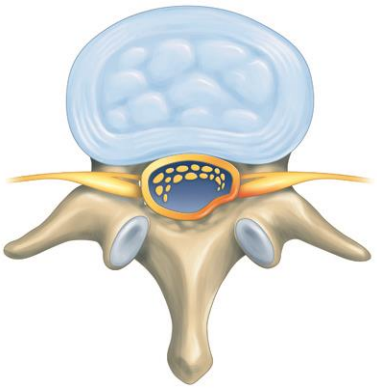
You can find your guidebook online at https://www.eehealth.org/ortho-spine

Frequently Asked Questions about Lumbar Decompression, Discectomy and Laminectomy

Q. What is wrong with my back?

A. You have a “pinched nerve.” This can be produced by one or more herniated discs and/or areas of arthritis in your back. The discs are rubbery shock absorbers between the vertebrae, and are close to nerves that originate in the spine and then travel down to the legs. If the disc is damaged, part of it may bulge (herniate) or even burst free into the spinal canal, putting pressure on the nerve and causing leg pain, numbness or weakness. Bone spurs associated with arthritis may do the same thing.

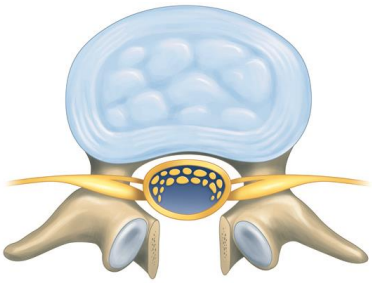
BEFORE



Q. What is required to fix the problem?

A. A decompression and discectomy may be needed. The disc herniation or bone spurs pressing on your nerve may need to be removed. This is done by making a small incision (depending on how many levels are in involved) in the middle of your lower back, moving the muscles covering your spine to the side, and making a small window into your spinal canal. The nerve is exposed, moved aside and protected; and the protruding disc or bone spur is then removed. This decompresses the nerve and, in most cases, leads to improvement in nerve pain, numbness and/or weakness. Sometimes the abnormality may be more extensive, extending over several disc segments, requiring a longer incision for decompression.

AFTER



Q. Who is a candidate for lumbar laminectomy and when is it necessary?

A. The primary reason for this operation is pain that is intolerable to the patient. Sometimes increasing nerve dysfunction (particularly weakness) or loss of bowel or bladder control may make the surgery necessary even if pain is not severe. In most cases, nerve dysfunction is not severe and pain can be controlled by non-surgical means. If this doesn’t happen, and if the pain and subsequent disability become intolerable, surgery is a reliable way to solve the problem. Since the patient is the one feeling the pain, the patient is usually the one who decides when he or she is ready for surgery.

Q. Who performs this surgery?
A. Both Spine Fellowship trained Orthopedic Surgeons and Neurosurgeons are trained in spinal surgery and both specialists may perform this surgery. It is important that your surgeon specialize in this type of procedure.

Q. Is my entire disc removed?
A. Possibly, but it depends on the specific findings in your spine. Your surgeon will determine what is appropriate for you.

Q. How long will I be in the hospital?
A. Decompression, microdiscectomy and laminectomy patients are usually out of bed within an hour or two after their operation, and some can go home on the day of surgery. The remainder almost always goes home the next day. For one-level surgeries, the hospital stay is generally one day. For multiple level surgeries, the hospital stay is generally two to three days.

Q. Will I need a blood transfusion?
A. Transfusions are rarely needed after this kind of surgery. We do not recommend pre-operative donation of your own blood.

Q. What can I do after surgery at home?
A. You may get up with assistance as soon as you feel able and may drive short distances when allowed by your surgeon. REMEMBER not to drive while taking any narcotics. You should avoid bending, lifting and twisting for six weeks to allow for healing of the surgical area.

Q. When can I go back to work?
A. That depends on the kind of work you do, and how long you have to drive to get there. Surgical patients can return to sedentary (desk) jobs that they can reach with a drive of 15 minutes or less whenever they feel comfortable, (usually three to four weeks). You should not drive long distances (30 minutes or more) for about one month after surgery. If your job requires physical labor, you should consult your surgeon when it is appropriate to return.

Q. What is the likelihood that I will be relieved of my pain?
A. Most patients get relief of their leg pain. Some patients may continue to have noticeable back pain in some situations, and may require additional treatment.

Q. What risks are there?
A. There are general risks with any type of surgery. These include, but are not limited to: the possibility of wound infection, bleeding, blood clots in the wound or in the veins of the leg, abdominal problems, pulmonary embolism (a blood clot to the lungs) or heart attack. The chances of any of these happening, particularly to a healthy patient, are low. Rarely, death may occur during or after any surgical procedure.

Q. Could I be paralyzed?
A. The chances of neurologic injury with spine surgery are very low; and the possibility of catastrophic injury, such as paralysis, impotence, or loss of bowel or bladder control are highly unlikely. Injury to a nerve root with isolated numbness and/or weakness in the leg is possible.

Q. Will my back be normal after surgery?
A. Though you may have excellent relief of pain, a disc is never completely normal after it has herniated, and if your problem has been caused by arthritis, the arthritis cannot be cured even if the bone spurs have been removed and the nerves decompressed. This is often the result of the underlying problem with your spine. You may have more back pain than a normal person would have, and there is an increased risk of re-herniation of the damaged disc. However, most people can resume almost all of their normal activities after recovering from surgery.

Q. What should I do after surgery?
A. You should resume low-impact activities as soon as possible, starting with walking. Climb stairs as needed. Try to walk a little farther each day. Your sutures are removed or steri-strips fall off so your incision is completely closed and you see your surgeon for your two week post-op office visit. By two or three weeks after surgery you may try more vigorous activities such as an exercise bike if allowed by your surgeon. Physical activity is good for you, if done properly.

Q. What shouldn't I do after surgery?
A. In general, you should limit lifting to no more than 10 pounds. No bending, twisting and high impact physical activities, including contact sports. Consult your surgeon for details.

Q. Could this ever happen to me again?

A. Unfortunately, yes. Bone spurs and disc herniation may form again at the levels operated on and at other levels.

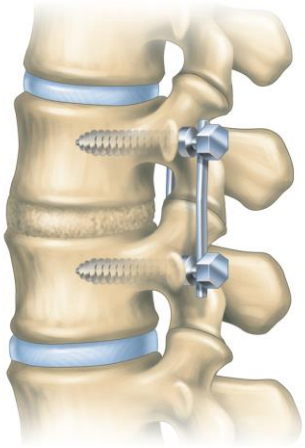
Q. Should I avoid vigorous physical activity?

A. No. Exercise is good for you! You should get some sort of vigorous, low-impact aerobic exercise at least three times a week. Walking either outside or on a treadmill, using an exercise bike and swimming are all examples of exercise that is appropriate for spine patients when ready and approved by their surgeon.

Frequently Asked Questions about Lumbar Fusion

Q. What is wrong with my back?
A. You have one or more damaged discs and/or areas of arthritis in your back. This produces pain, and may produce abnormal motion, or misalignment of your spine. Discs are rubbery shock absorbers between the vertebrae, and are close to nerves that travel down to the legs. If the disc is damaged, part of it may bulge or even burst free into the spinal canal, putting pressure on the nerve and causing leg pain, numbness or weakness.

Q. What is required to fix the problem?
A. Your condition requires both a nerve decompression (freeing the nerves from pressure) and a spinal fusion. In this case, both nerve decompression and spinal fusion would be done.



Q. What is spinal fusion?
A. A fusion is a bony bridge between at least two bones; in this case, two vertebrae in your spine. The vertebrae are the blocks of bone that make up the bony part of the spine, like a child's building blocks stacked on top of each other to make a tower. Normally each vertebra moves within certain limits in relationship to its neighbors. In spinal disease, the movement may become excessive and painful, or the vertebrae may become unstable and move out of alignment, putting pressure on the spinal nerves. In cases like this, surgeons try to build bony bridges between the vertebrae using pieces of bone called bone graft. The bone graft may be obtained from the patient, (usually from the pelvis), or more commonly from a bone bank. There are advantages and disadvantages to either source. The bone graft is either laid next to the vertebrae or actually placed between the vertebral bodies (the rubbery disc that normally lies between the vertebrae must be removed). In either case, the bone graft has to heal and fuse to the adjacent bones before the fusion becomes solid. Spine surgeons often use screws and rods to protect the bone graft and stabilize the spine while the fusion heals.

Q. Who is a candidate for lumbar fusion, and when is it necessary?
A. When the back and nerve problems cannot be corrected with a more simple procedure and the pain persists at an unacceptable level, it is necessary to do a fusion. Some of the conditions which require spinal fusion are discussed in the answer to "What is Spinal Fusion?"

Q. Who performs this surgery?
A. Both Spine Fellowship trained Orthopedic Surgeons and Neurosurgeons specializing in spine surgery may perform this procedure, either individually or as a team. It is important that your surgeon specialize in this type of procedure.

Q. Are there risks involved?
A. There are general risks with any type of surgery. These include, but are not limited to, the possibility of wound infection, bleeding, blood clots in the wound or in the veins of the leg, abdominal problems, pulmonary embolism (a blood clot to the lungs), or heart attack. The chances of any of these happening, particularly to a healthy patient, are low. Rarely, death may occur during or after any surgical procedure.

Q. Could I be paralyzed?
A. The chances of neurologic injury with spine surgery are very low; and the possibility of catastrophic injury, such as paralysis, impotence or loss of bowel or bladder control are highly unlikely. Injury to a nerve root with isolated numbness and/or weakness in the leg is possible.

Q. What are my chances of being relieved of my pain?
A. More than 90 percent of patients get relief of their nerve symptoms or leg pain. Relief of back pain is less predictable.

Q. Will my back be normal after surgery?
A. Even if you have excellent relief of pain, the spine may not completely be normal after a fusion. Stiffening one segment of the spine with the fusion may put additional strain on other areas. Other discs may have already started to wear out or become arthritic. Even if they aren't causing you pain now, they may do so in the future. For these reasons, you may have more back pain than a normal person would have. However, most people can resume almost all of their normal activities after their fusion has healed.

Q. How long will I be in the hospital?
A. For one-level fusions, the hospital stay is generally one day. For multiple level fusions, the hospital stay is generally two to three days.

Q. What shouldn't I do after surgery?
A. Generally, you should avoid bending, lifting and twisting. Even if screws or rods are used, three to 12 months are required for the fusion to heal completely. You must protect your spine during this time. Your surgeon may prescribe a brace for you to wear for part of this time. If you are a smoker before surgery or having a two or more level fusion, your surgeon may order a bone stimulator to assist the healing process. If you are a smoker**, you definitely should not smoke until your fusion is completely solid, since smoking interferes with bone healing.** No driving while taking narcotics or muscle relaxants.

Q. What can I do after surgery at home?
A. You should get up and move around frequently. If you are feeling well enough and your surgeon allows after your post op visit, you may begin driving in two to three weeks with your back brace on, if ordered. REMEMBER not to drive while taking narcotics.

Q. When can I return to work?
A. This should be discussed individually with your surgeon. Generally, patients may return to sedentary jobs whenever they are comfortable, which is usually within three to six weeks. If you drive more than 30 minutes to get to work, your surgeon may want you to wait longer. It takes much longer to get back to work that requires strenuous physical activity due to the increased stress these activities play on the healing bone.

Q. Could I ever need another operation?
A. If the fusion doesn't heal solidly, even with plates and screws, your symptoms may recur and additional surgery may be needed. Other discs may degenerate in the future, especially if there was evidence of degeneration prior to your first procedure.

Q. Should I avoid vigorous physical activity?
A. No. Exercise is good for you! You should get some sort of vigorous, low-impact aerobic exercise at least three times a week. Walking either outside or on a treadmill, using an exercise bike and

swimming are all examples of exercise that is appropriate for spine patients. You may start these activities as soon as you are comfortable and **when your surgeon allows.**

Role of the Care Coordinator

The Care Coordinator is a nurse at the hospital who coordinates the care of each patient undergoing spine surgery. The Care Coordinator is available to answer your questions about your surgery or the recovery process.

The Care Coordinator at **Edward Hospital** can be reached between the hours of 8 am - 4 pm Monday - Friday at (630) 527-3680.

The Care Coordinator will:

- Answer questions and direct you to specific resources within the hospital
- Answer questions and coordinate your hospital care with spine team members
- Act as your liaison throughout the course of treatment
- Assist to conduct a pre-operative class for patients undergoing lumbar surgery

Pre-op Spine Class

This class is ideally suited for patients who are undergoing multi-level lumbar fusion or anterior/posterior cervical fusion as these surgeries generally require a longer hospital stay. However, all spine surgery patients are encouraged to attend. We also encourage you to choose a coach to attend with you (See Appendix for class times and location).

Please bring your Coach and Guidebook with you to class.

Section Two:

Pre-operative Preparation

Remember, this is a guide. Your physician, physician's assistant, nurses, or therapist may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your Guidebook as a handy reference for at least the first year after your surgery.

Pre-operative Exercises

Just as exercise is important in the rehabilitation process following spine surgery, it is important that you participate in a pre-operative exercise program if able. Exercising before surgery can help you build up the necessary strength and endurance for a more optimal recovery from spine surgery. To enhance your recovery from this surgery, try to incorporate some aerobic exercise (walking, water aerobics and recumbent bicycle) into your daily routine. Many patients have mentioned just how helpful it was to take the time to "strengthen" the muscles in their arms and legs prior to coming in for surgery.

Four Weeks before Surgery

Contact Your Insurance Company

Before surgery, you will need to contact your insurance company. You will need to find out if pre-authorization, pre-certification, a second opinion or a referral form is required; HMO's require a referral. It is very important to make this call, as failure to clarify these questions may result in a reduction of benefits or delay of surgery. This is especially important if your spine problem is due to an injury at work.

Billing for Service

After your procedure, you will receive separate bills from the anesthesiologist, the hospital and if applicable the surgical assistant, the radiology and pathology departments. If your insurance carrier has specific requirements regarding participation status, please contact your carrier.

Three Weeks before Surgery

Pre-Admission Nursing Assessment

For Edward Hospital: After your surgery has been scheduled, a nurse from Pre-Admission Testing (PAT) will call you to schedule your Pre-Admission Nursing Assessment (which is completed over the phone.) If we are unable to reach you and leave a message, please call PAT as soon as possible. Leave a message with a good time frame you would be available if we are not able to directly answer your call.

For Elmhurst Hospital: The Pre-Admission Testing (PAT) department will contact you to complete your pre-admission assessment by phone.

For your pre-admission nursing assessment, you will need to have the following information:

- Patient's full legal name and address, including county
- Home phone number and secure phone number to leave a message
- Marital status
- Social Security number
- Name of insurance holder, his or her address and phone number and his or her work address and work phone number
- Name of insurance company, mailing address, policy and group number
- Patient's employer, address, phone number and occupation
- Name, address and phone number of nearest relative

- Name, address and phone number of someone to notify in case of emergency. This can be the same as the nearest relative.
- Height and weight
- Medical and surgical history
- List of all medications (prescribed, OTC, vitamins, supplements, herbals) or have all bottles in front of you
- Calendar to schedule Pre-op testing, and Pre-op class

Obtain Medical and Anesthesia Clearance

When you were scheduled for surgery you should have received a medical clearance letter from your surgeon. This will tell you whether you need to see your primary-care physician and/or a specialist. You may get additional instructions from PAT directed by anesthesia requirements. Please follow the instructions.

Obtain Laboratory Tests

When you were scheduled for surgery, you should have received a laboratory-testing letter from your surgeon. Follow the instructions. Your primary care physician or specialist, along with PAT directed by Anesthesia, may order additional testing. PAT will set up the lab and X-ray testing appointments with you. If you have an HMO, you will need to contact your PCP and insurance on where to complete this testing and set up your appointment.

Review "Changes to Health Care Decisions in Writing"

The law requires that everyone being admitted to a medical facility have the opportunity to complete advance directives forms concerning future decisions regarding your medical care. To review information about advance directives or to find out how to get the necessary forms, please refer to the Appendix. Although advance directives are not required for hospital admission, we encourage you to consider completing the forms for the directives you desire. If you already have advance directives, please bring copies to the hospital on the day of surgery.

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 non-smokers. Please read information about Smoking Cessation in the Appendix.

Read "Anesthesia and You" (Appendix)
Spinal surgery does require the use of general anesthesia. Please review "Anesthesia and You" (see Appendix). If you have questions or want to request a particular anesthesiologist, please call your surgeon's office.

Importance of Your Coach
In the process of spine surgery, the involvement of a family friend of relative acting as your coach is very important. Your coach will be with you from the pro-op process through your stay in the hospital and to your discharge home. They will attend pre-op and discharge classes, give support, learn how to change your bandage, and keep you focused on healing. They will assure you continue walking and maintain any restrictions you may have to promote a safe recovery at home.

Two weeks before Surgery

Medications to stop
Stop all herbals, vitamins (especially E, and K) and appetite suppressants. (See List in Appendix) Discuss **NSAIDS, anticoagulants and anti-platelet medications (blood thinners)- See list in Appendix**- these may need to be stopped at this time or later as determined by your surgeon and prescribing physician.

Ten Days before Surgery

Pre-operative Visit to Surgeon
You may have an appointment in your surgeon's office 1-2 weeks prior to your surgery. This will serve as a final check-up and a time to ask any questions you might have. Some patients with acute disc herniation may have a shorter time between the visit and surgery.

At this time you should schedule your two week and six-week post-op visits.

Stop Medications that Increase Bleeding

- Ten days before surgery, stop taking all medications containing aspirin and anti-inflammatory medications, such as aspirin, Motrin, Naproxen, etc. (See List in Appendix) as these medications may cause increased bleeding.
- If you are on any blood thinners such as Coumadin, Xarelto, Plavix, Pradaxa, Effient, etc. (See List in Appendix) you will need special instructions on stopping this medication. Please contact the prescribing physician for these instructions AFTER DISCUSSING WITH YOUR SURGEON.

Planning Ahead to Ease Transition Back Home

Home

- De-clutter your home. Temporarily put away area rugs that may be a tripping hazard.
- Shop ahead! Have frozen dinners available to pop into the microwave and paper plates to limit washing. Also have plenty of liquids available. Pain medications can give you a very dry mouth.
- Complete needed yard work and mowing or arrange to have this done for you.
- Arrange for neighbors/family to collect mail and newspapers for a few days.
- Change your bed and have fresh linens prepared beginning with the night before surgery.
- Strategically place nightlights in bedrooms, hallways and bathrooms you may need to access at night.
- Place essential and frequently used items at counter level in the kitchen. This may mean taking out the items from the lower or very upper cabinets and storing them on the counter temporarily.
- Have current bills paid so you do not have to worry about these immediately after the surgery.
- Arrange for a ride home from the hospital
- Have support lined up, especially if you live alone. Arrange for friends to call on certain days or stop by and make sure you don't need any extra assistance.
- No special chair is needed, but you want one that offers you support and comfort. One with side arms is best.

Pets

- Have help for the first few days to keep food and water available for pets.
- Have a dog walker planned for the first week at least. You will not want to chance losing your balance or being jerked by your excited canine friend!
- If you have cats, have the litter box up on a high table or counter so you don't have to bend down to clean it.

Points of comfort

- You may want to bring extra pillows for the ride home to maximize your comfort
- Bring comfortable, loose clothing to wear in the hospital and going home

Five Days before Surgery

Chlorhexidine Bathing

If your surgeon has instructed you to use Chlorhexidine (Hibiclens or Betasept) soap, please follow the instructions as provided. If you have not received this soap, please take a good “scrubbing” shower the evening before the surgery with a new bar of regular soap. Be sure to pay special attention to skin folds and area for surgery. Sleep on clean sheets and use clean clothing after bathing.

One to Two Days before Surgery

Find Out Your Arrival Time at the Hospital

The hospital will call you one to two days before surgery, sometime in the afternoon or evening, or on Friday, if your surgery is on Monday, to let you know what time your procedure is scheduled. You will be asked to come to the hospital two hours before the scheduled surgery to give the nursing staff sufficient time to start IVs, verify your information, complete any last minute testing, prepare the surgical site and answer questions. It is important to arrive on time because sometimes the surgical time is moved up at the last minute and your surgery could start earlier. If you are late, your surgery could be moved to a much later time. You will be instructed where to come, where to park and what to bring with to the hospital.

The Night before Surgery

NPO - Do Not Eat or Drink

- Do not eat or drink anything, EVEN WATER, after 11PM unless otherwise instructed to do so.
- If you must take medication the morning of surgery, do so with a small sip of water.
- You may brush your teeth, rinse and spit.

SPECIAL INSTRUCTIONS:

You will be instructed by your surgeon and prescribing physician on diabetic medications, blood pressure or heart medications and daily medications to take or omit the morning of surgery. PAT will also review this as advised by your physician and Anesthesia requirements for surgery.

What to Bring to the Hospital

- Patient Guidebook
- Advance directives and living will
- Insurance card and co-pay (if applicable)
- Personal hygiene items (toothbrush, powder, deodorant, razor, etc.)
- Shorts, tops, warm up suit or sweat pants, well-fitting slippers or flat shoes
- Loose-fitting warm-up suit for the ride home
- For safety reasons do NOT bring electrical items; Battery-operated items are allowed
- A favorite pillow with a pillowcase in a pattern or color so it will not end up in the hospital laundry. You can use the pillow during your stay and in the car for the ride home
- Any braces IF ORDERED
- Cane or walker if you already have one; family to bring equipment to hospital room the day after surgery for proper adjustment, IF NEEDED
- Leave valuables at home
- No jewelry, make-up or adhesives on dentures day of surgery

Section Three:

Hospital Care

Day of Surgery

Arrival

For Edward Hospital: Drive to the South parking garage. Free Valet parking is available during business hours. If you self-park, take the elevator from the garage to the first floor to enter the main hospital lobby. Wheelchairs are available if needed. Take the D elevator to the 2nd floor. Proceed to the Surgical and Endoscopy Check-In Desk. Here you and your family will be checked in and escorted to the Peri-op Area to be prepared for surgery. Up to two family members may wait with you until you are taken to surgery. Your family may then wait in the Surgical Waiting room until notified by the surgeon that the surgery has been completed. A receptionist will take down contact information so that your family may be easily reached to speak with the surgeon. Complimentary coffee is available for your family while in the Surgical Waiting room.
The cafeteria and gift shop are on the ground floor in the North area of the hospital and the coffee shop is in the South area of the hospital for your family's convenience.

For Elmhurst Hospital: Park in the blue or green color-coded parking lots. Enter the hospital through the Main Entrance. Wheelchairs are available if needed. You will proceed to the main elevators that will take you to the Interventional Platform. Turn left when you get off the elevators and head to the Surgery Reception Desk. Here you and your family will be checked in and escorted to a preoperative room to be prepared for surgery. Up to two family members may wait with you until you are taken to surgery. Your family may then wait in the Surgical Waiting area until notified by the surgeon that the surgery has been completed. A volunteer will take down contact information so that your family may be easily reached when it's time to speak with the surgeon. Your family will be given a gift card for a complimentary coffee in the Wildflower Café. The Café, Starbucks, Walgreens, Wild Rose Floral & Gifts, and the Resource Center are located on the first floor.

What to Expect

In the preoperative room you will be prepared for surgery. The team will be checking your vital signs, starting your IV, validating your medications, health history, lab results and any follow up for additional testing needed. At this time, they will obtain your consent for surgery and answer any questions you may still have. Your anesthesiologist and surgeon will see you and your family prior to your surgery. The surgeon will mark your surgical site. You will be escorted to the operating room by cart. Your family can wait in the surgical waiting room. Following surgery you will be taken to the Post Anesthesia Care Unit (PACU) where you will recover for approximately an hour. During this time, pain and nausea control will be established and your vital signs will be monitored frequently.

You will then be taken to the Spine Unit where our specialized staff will care for you. Friends and family can see you at this time.

For the rest of this day, you will begin with liquids advancing to soft foods. We encourage you to drink plenty of water. We will instruct you on the benefits of breathing exercises, early ambulation, ankle pumps, compression stockings, and sequential compression devices (SCD's). Our staff will **assist** you out of bed to the chair or walking in the hallway. Initially, your pain will be managed with oral and IV medication. There will be a dressing over your back incision and possibly cold therapy. You may have a catheter to your bladder that will be removed as soon as you are able to walk.
.

Post-op Routine through Discharge

An X-ray will be taken of your lumbar spine after surgery. Your physician may have this done in surgery, in recovery or on the Spine unit.

Each day starts with blood work obtained early in the morning with your vital signs. If your surgeon has ordered a Primary Care physician for your medical management while in the hospital, a hospitalist may see you. A hospitalist is a physician who only sees patients while they are in the hospital. Most Primary Care physicians do not see their own patients while in the hospital anymore- hospitalists are used instead. If your physician still does see his or her own patients in the hospital, that will be the person contacted if ordered by your surgeon.

Understanding Pain Management

We realize that you will have some discomfort after your operation. It is our aim to make you as comfortable after surgery. There are several factors that limit our ability to completely eliminate pain after surgery. The first is that pain medications have side effects. These include respiratory depression (decreased ability to breathe normally), hypotension (low blood pressure), nausea and constipation. Other less common side effects include itching, urinary retention (inability to urinate) and abdominal distention (collection of gas within the intestines). These side effects mean that the amount of medication will have to be reduced at times, to avoid creating dangerous or uncomfortable conditions. Another factor is tolerance. This is the body's tendency to become less responsive to the pain-reducing action of narcotics after being exposed to them for periods of time. In other words, your body can become used to having these drugs. Unfortunately, the side effects can still be present. Patients who have taken large doses of narcotics for months or years have a much harder time keeping comfortable after surgery. For this reason, it is **very important for you to provide accurate information to your surgeon about the amount of pain medication you have been taking. 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.

It is important that patients taking Suboxone for chronic maintenance therapy inform their prescribing physician about their upcoming surgery. The physician who prescribed Suboxone can assist in modifying your maintenance therapy before surgery and provide advice on your pain management plan after surgery.

Once you have had your surgery, we will rely heavily on your own assessment of your pain, and work with you to relieve it. We will ask you to rate your pain on a scale of 1-10 with 10 being the highest pain imaginable. We will ask you this frequently. Most patients are started on oral pain medications and will receive intermittent low-doses of pain medication into their IV, which they either control with a small pump called a PCA (patient controlled analgesia) OR they will receive IV pain medication administered by a nurse for breakthrough pain. Muscle relaxants may also be used to decrease muscle spasms. Generally, the oral pain medications are the same medications you will take at home once you are discharged from the hospital. Throughout your hospital stay, your surgeon and your bedside nurses will assess your physical condition and look for signs of pain and side effects. Pain Service physicians and APN's are available when needed and consulted to help optimize your treatment program. Using this approach, most of our patients have very satisfactory pain control after surgery.

Discharge Plans and Expectations

The plan for your discharge begins with your decision to have surgery. Our goal is for you to optimize your recovery in the comfort of your own home.

You will be admitted to the hospital on the day of your surgery. The average hospital length of stay for spine surgical patients is 1 to 2 days. As early as the day of surgery, you will start physical therapy in the hospital. These sessions will help you prepare for discharge and your journey to wellness. Prior to discharge, patients should be ambulating and using the bathroom independently (with a walker IF NEEDED), eating and drinking well, and taking oral medication to control discomfort. If equipment (rolling walker) is needed, the Physical Therapist may assist you in obtaining one while in the hospital. We suggest that you have someone who can be your caregiver for the first two to three days at home. This can be a friend or family member who can change your dressing and help you with your compression stockings. This caregiver will also help out with meals and household activities.

You need to discuss your discharge options with your doctor and family PRIOR to your surgery. A representative from Case Management and nursing staff will collaborate with your surgeon for the most appropriate discharge plan. While most patients go directly home, sometimes the services of

home physical therapy or a sub-acute rehabilitation facility are needed. If so, the Social Worker will make these referrals for you and discuss them with you.

Patients who need to be discharged to sub-acute rehabilitation center prior to returning home must meet their insurance company's specific criteria before approval can be granted. If you do not meet these criteria, but strongly wish to pursue a sub-acute rehabilitation center, you have the option to pay privately for your stay. If you anticipate discharge to a rehab facility, it is strongly recommended to tour facilities prior to surgery, having a choice in mind to provide to the Social Worker at time of surgery.

Our team will also assist you in arranging the appropriate transportation (Medivan vs. ambulance) based on your needs. There is an out of pocket fee for transportation. You can discuss this further with the Social Worker.

Edward Hospital: The Orthopedic/Spine Case Manager or Social Worker can be reached at (630) 527-3569.

Elmhurst Hospital: The Case Management Department can be reached at (331) 221-1146.

Section Four:

Post-operative Care

Caring for Yourself at Home

When you go home there are several things you need to know to ensure your safety, your steady recovery and your comfort.

Control Your Discomfort

1.) Medication Management

- Take your pain medicine at least 30 minutes before activity to control incisional pain.
- As your pain lessens gradually wean yourself from prescription medication to Tylenol.
- During the first three months after surgery or until allowed by your surgeon (if you had lumbar fusion), do not take over the counter anti-inflammatory medication (NSAIDS) such as Ibuprofen (Motrin, Advil, Aleve –SEE LIST in Appendix). This type of medication can interfere with bone healing and thus jeopardize the success of your surgery. If you have prescription non-steroidal anti-inflammatory (NSAIDS) medication at home, consult your surgeon before taking these or over-the-counter non-steroidal anti-inflammatory medications (NSAIDS.)

2.) Use of Ice/Heat

- Use ice for pain control. Applying ice to your incision will decrease discomfort. Do not use ice for more than 30 minutes at a time each hour; do not place directly on skin.
- Apply heat to areas of muscle spasm only. **Do not use** heat around your incision; this will cause swelling.

3.) Positioning

- Change your position every 45 minutes throughout the day.
- Muscle strain and spasm can often be reduced by elevating the arms with pillows. Using positioning techniques along with pain medication will optimize your comfort.
  See Section for pictures.

4.) Muscle Spasm

- If your doctor has prescribed a muscle relaxer, take this as needed, to help relieve muscle spasms.
- Gentle stretching may ease muscle spasm. The idea is to “lengthen” the muscle that is in spasm. Remember to avoid the B.L.T.’s. (BENDING, LIFTING, TWISTING)
- Gentle massage applied to the muscle spasm may help to reduce discomfort.

5.) Breathing

- Take slow, controlled, deep breaths. Cough deeply and use your incentive spirometer (I.S.) at least ten times each hour. This helps to expand your lungs after surgery and prevent pneumonia or respiratory complications. Deep breathing can also assist in relaxing your muscles and body. Breathing and relaxing while you move will help reduce muscle tension.

Body Changes

- Your appetite may be poor at first. Drink plenty of fluids to prevent dehydration and constipation. Your desire for solid food will return. Increase roughage with fresh fruits and vegetables and whole grains.
- You may have difficulty sleeping at night. This is not abnormal. Don't sleep or nap too much during the day.
- Your energy level will be decreased for the first month.
- Pain medications contain narcotics, which promote constipation. Use stool softeners like Senokot or Colace while using narcotics. Add mild laxatives such as Milk of Magnesia or Miralax, if necessary. Do not let constipation continue. If the stool softener or laxative does not relieve your discomfort, contact your pharmacist, family doctor, or surgeon for advice.

Caring for Your Incision

- Keep incision clean and dry at all times
- Change dressing daily unless instructed differently
- If allowed by your surgeon, you may shower (not tub bathe) once there is no drainage from the incision. Drainage usually stops within 3-4 days after surgery.
- Keep dressing in place while showering and cover with plastic to keep incision dry during shower.
- Position yourself so your incision faces away from the showerhead.
- After showering, remove old dressing, pat incision dry, and replace dressing as instructed.
- Do not use lotions or ointments on incision.
- No tub baths, hot tubs or saunas for 6 weeks
- Notify your surgeon if there is clear or increased drainage, redness, pain, odor or heat around the incision.
- Take your temperature twice a day; notify surgeon for a temperature above 101

Signs of Infection

- Increased swelling, redness at incision site.
- Change in color, amount, and odor of drainage.
- Increased pain around the incision.
- Fever greater than 101 degrees.

Prevention of Infection

- Take proper care of your incision as explained above.
  Keep incision clean and dry; sponge bathe until able to shower
- No baths, pools, hot tubs or saunas for 6 weeks
- Good hand washing by visitors and yourself
- Clean bed linens and clothing
- Avoid people with colds and flu

Dressing Change Procedure

(May vary with surgeon)

This procedure is the same for the neck and hip bone graft incision

Dry Gauze Dressing

1. Wash hands.
2. Prepare all dressing change materials (open gauze pad and tape).
3. Remove old dressing.
4. Inspect incision for the following:
   - increased redness or swelling
   - increase in clear drainage
   - any yellow/green or color change in drainage
   - odor
   - surrounding skin is hot to touch
   - opening up of incision
5. Pick up gauze pad by one corner and lay over incision. Be careful not to touch the inside of the dressing that will lay over the incision.
6. Place the dressing over the incision and tape it in place.
7. Wash hands
8. No lotions or ointments to incision

Other Types of Dressing

Some types of dressings are only to be changed seven to 14 days after surgery. Your nurse will instruct you on this if this is the case.

Skin glue

If the incision has been treated with skin glue, please follow these instructions:

- If dressing remains dry, remove the dressing on post op day #2. Carefully try to lift gauze from the incision. If the gauze adheres to the incision, do not pull it loose. Just trim away the loosened gauze as needed. After a few days the gauze should come free.
- If dressing becomes wet with a collection of fluid or blood, remove promptly and follow the dressing change instructions for "gauze dressing." Change dressing daily and as needed until incision remains dry.

Compression Stockings (TED Hose)

You will be asked to wear compression stockings while in the hospital. These stockings are used to help compress the veins and decrease the chance of blood clots. You will wear the stockings most of the day, taking them off for a few hours in the morning. If ordered by your surgeon, continue to wear these stockings for two weeks after surgery until seen by your surgeon at your first post-op visit. If you have received other instructions from your surgeon, please follow those. Continue to wear your compression stockings (white) until your doctor tells you to stop. They may be washed with gentle soap and air dried.

Blood Clots in Legs

Surgery may cause the flow of blood to slow and clot in the veins of your legs. If a clot develops, you may need to be admitted to the hospital to receive intravenous blood thinners. Prompt treatment usually prevents the more serious complication of pulmonary embolus. Moving around throughout the day, especially walking, will reduce the chance of blood clots.

Signs of Blood Clots in Legs

- Swelling in thigh, calf or ankle that does not go down with elevation of the legs
- Pain, tenderness in calf

These signs are not 100 percent certain, but are warnings. If they are present, promptly notify your surgeon.

Prevention of Blood Clots

- Frequent foot and ankle pumps
- Walking
- Stockings/compression stockings
- Elevating your feet/legs

Pulmonary Embolism

An unrecognized blood clot could break off in the vein and go to the lungs. ***This is an emergency and you should call 911 if suspected.***

Signs of an Embolism

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath or anxiety with breathing
- Sweating
- Confusion

Prevention of an Embolism

- Prevent blood clot in legs
- Walk and use your compression stockings as directed
- Recognize a blood clot in leg and call physician promptly

Section Five:

Post-operative Activity Guidelines

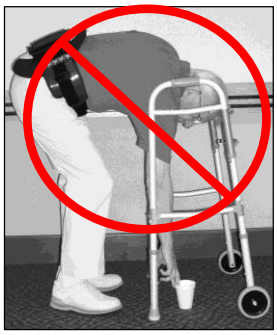
Remember, this is a guide. Your physician, physician's assistant, nurses, or therapist may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your Guidebook as a handy reference for at least the first year after your surgery.

Spinal Precautions

Lumbar Spinal Precautions: No "B.L.T."

Check with surgeon or physical therapist for specific pre-operative precautions. General guidelines include:

No Bending



- Keep shoulders in line with hips. Avoid leaning forward while standing up or reaching down to the floor while you sit down.
- Practice optimal body mechanics by keeping chest up, shoulders back, and abdominal muscles tight.

No Lifting

- Do not lift more than 10 pounds until seen at your follow-up appointment and allowed by your surgeon
- To lift an object, keep chest upright 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 and shoulders.

Back Brace

There are several types of back braces that help provide support and/or limit motion to your back.

One of the more popular braces used after a spinal fusion is known is the lumbosacral brace or “LS brace”. This brace is a soft brace with Velcro closures, and its worn positioned down over your hips. The brace is adjusted on the sides and centered low over the abdomen. Make sure the two Velcro panels fasten on either side, not in the front.

Pull the "rip cord" to tighten the brace. It is best to do this last part standing to ensure a snug fit.

To remove the brace, unfasten the "rip cord" and secure it to one side of the brace. Now, undo the Velcro closure on the other side of the brace and remove brace. There is no recoil mechanism so the strings must be "reset" by pulling either end of the brace lightly until the cords are fully extended.

Another type of back brace is the “TLSO” (thoraco lumbar sacral orthosis). This brace is commonly referred to as a “clam shell” brace. Patients having thoracic or high lumbar surgery may need to wear this type of brace.

A third type of brace is a corset. This brace is a soft brace with hook attachments and pull straps to tighten. The back “spine” is lined up with your spine over your lumbar area. Always readjust/tighten again once standing. A back brace may be recommended for patients to wear during the post-operative period so that motion is limited at the surgical site. Wearing the back brace as instructed (whenever out of bed) will aid in optimal healing. Some patients may need to wear their brace for as little as 4 weeks or as long as 3 months. Your surgeon will give you the best idea of your personal timeframe, IF NEEDED.

Bed Positioning

Lying on Your Back

- Place pillow under your neck while lying on your back. This positioning reduces stress on spine. You may also place a pillow under your knees and thighs.
- When you change positions, tighten abdominal muscles and log roll keeping hips and shoulders lined up.

Lying on Your Side

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

Lying on Your Stomach

- Avoid this position. It places too much strain on lower back.
- If you cannot avoid this position, place pillow under stomach to provide support for back.

Note

- Do not sleep on soft bed or couch. Takes the three spinal curves out of alignment and adds extra stress to back.

Bed Mobility

Getting Out of Bed

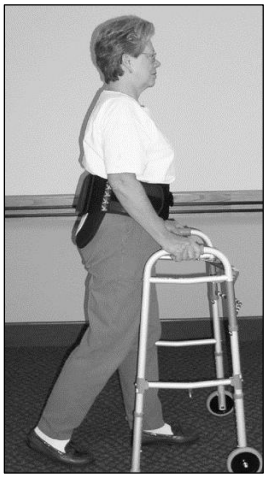
To move in and out of bed, "log roll" to prevent bending or twisting of spine. Start by bending knees up while lying on back. Now roll onto side keeping hips, shoulders, and ears moving together to avoid twisting (i.e., roll like a log).


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


Returning to Bed

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

Using a Walker



When using a walker, it is important to remember key rules.

- Push up from surface you are sitting on (e.g., bed or chair). Avoid pulling on walker to stand. Walker could easily tip backward and will not offer optimal support to stand.
- Easiest to stand up from chairs with armrests and from bedside commode with armrests. Armrests give better leverage and control to stand up and sit down safely.
- Walker takes pressure off back. Push down through walker with arms as needed without raising shoulders or leaning too far forward.
- Keep feet near back of walker frame or rear legs. Don't be too close or too far from walker. Stay inside walker.
- Stand up straight when walking. Keep shoulders back, head up, chest up, and stomach muscles tight.
- If wheels on walker, no need to lift walker – just push walker forward as you walk or turn.
- Each day increase frequency and distance. Go at own pace. Frequent walks are very important to keep you moving and decrease stiffness and pain. By six weeks, goal is to walk three miles unless otherwise instructed by surgeon or therapist.
- Talking smaller steps and walking slower does not necessarily make it easier to walk. May end up expending more energy than necessary. Move at own pace and comfort level.
- Take six to eight walks per day at home. During at least one of the walks, you want to increase the distance as tolerated.

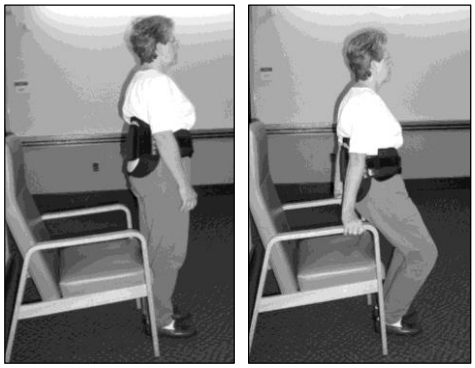
Transfers

Getting Into a Chair

Back up to chair until it touches back of legs. With hands, reach behind to grasp armrests of chair. Using arms and legs, squat and lower self into chair.

Special Instructions:

- Tighten stomach muscles to provide support for lower spine.
- Feet should be firmly resting on floor or foot stool. Do not let feet dangle as this will place additional stress on spine.



Getting Out of a Chair

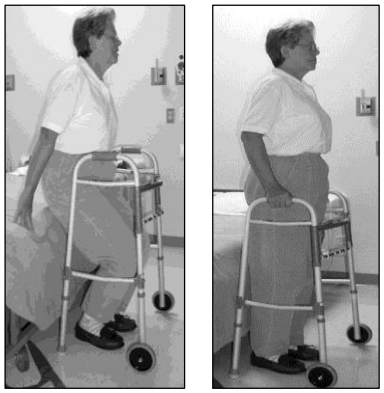
Scoot forward until sitting near edge of chair. With hands on armrests, your knees bent, and your feet placed underneath you, push through your legs and arms into standing position. Straighten legs and shift weight forward over feet. Bring hands to walker as you are moving into standing position, but do not pull up on the walker

Helpful Tips with Sitting:

- Do not let feet dangle when sitting. Have feet firmly supported to prevent pulling at back. You may use a pillow behind your back to keep you more forward in the chair, allowing your feet to be supported by the ground.
- Protect back by sitting in chair with back support. Use pillow or towel as lumbar roll.

From Bed

It is important to stand by pushing on the bed with arms and NOT by pulling on walker. Place hands on bed, and push up to standing. Focus on straightening legs and shifting weight forward over feet. As you start to straighten, bring one hand forward to walker and then other hand. When sitting back down, be sure to reach for bed one hand at a time to control body.



Getting Into the Car

Back up to car seat until you feel it at back of legs. Reach hand behind you for back of seat and other hand to secure spot either on frame or dashboard. (Door and walker are not secure options. If need to use them, have someone hold “unsteady” objects.) Lower slowly to sitting. Scoot hips back until you are securely on seat.

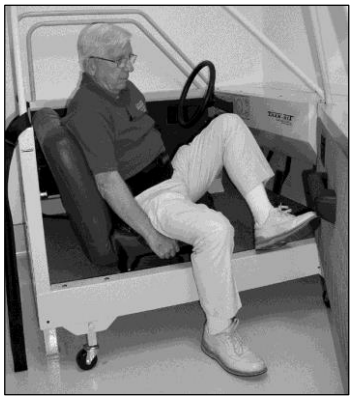
Leading with hips, bring one foot into car at a time until you are facing forward. Prevent twisting by keeping shoulders, hips, and ears pointing in same direction. May want to recline seat to increase ease of lifting legs. Keep seat slightly reclined while riding to support back from “bumps” in road.

Getting Out of the Car

When getting out of car bring legs out one at a time. Lead with hips and shoulders and do not twist back. Place one hand on back of seat and one hand on frame or dashboard. Push up to standing. Reach for walker when you are stable.

Helpful tips with car transfers:

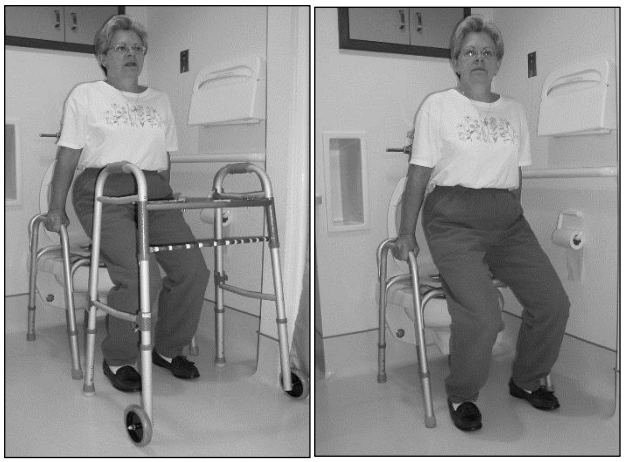
- Have empty plastic bag on seat to help slide in/out.
- Have seat positioned all way back so you have maximum leg clearance.
- If you have to have one hand on walker for leverage, have someone hold walker down on front bar for stability.



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

Getting Onto the Commode

Back up to commode like you would chair. Without twisting to look, reach back for handles of commode or toilet seat and squat using arms to help slowly lower down to sitting position. Feet should be flat on floor for support while sitting.



Getting Off of the Commode

Use arms to lift body and scoot hips forward to edge of commode seat. With knees bent and feet placed underneath you, push up through legs and arms into standing position. As you stand, maintain support by reaching for walker one hand at time.

Bathing

Stepping in/out of tub:

- If shower is part of tub, hold onto front wall of shower and step in or out sideways versus stepping in forward. This side-step places much less stress and motion on lower spine.
- If a walk-in shower stall, step in as usual making sure not to twist as you turn to controls.
- May want to have a bathtub or shower seat available for first few days you shower. Borrow these items or buy them inexpensively. Small patio resin/plastic chair work for this. Small tub/shower benches can be purchased at most drug stores or medical supply stores.
- Surgeon will provide clearance on taking a tub bath or swimming. Generally, these may not be resumed for at least six weeks following surgery.

Using Stairs

Negotiating Consecutive Steps

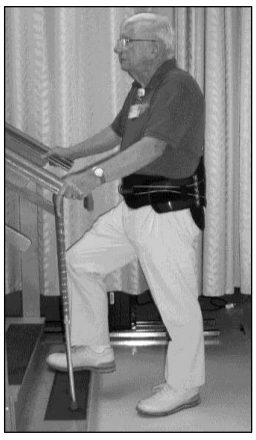
- Use handrail and/or cane for assistance.
- If one leg feels weaker than other, go up steps with stronger leg first and down steps with weaker leg first. Remember, "up with the good and down with the bad."
- If unsteady, take one step at time. This will make negotiating steps easier and safer.
- Concentrate on what you are doing. Do not hurry.
- Have someone assist or spot you as you feel necessary or indicated by therapist. Person should stand behind and slightly to side when going up steps. When going down steps, person should be in front.

Helpful Stair Tips

- Keep steps clear of objects or loose items.
- Plan ahead. Right after surgery keep items in areas where you can limit stair use.
- Install one or two handrails. Two handrails will increase ease and safety with steps.

Negotiating Curb or One Single Platform Step

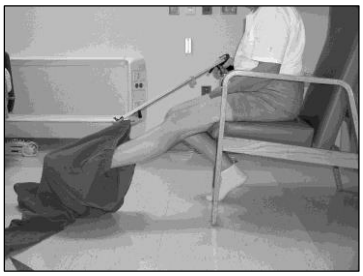
- Use rolling walker.
- Move close to step.
- Place entire walker over curb onto sidewalk. Make sure all four prongs/wheels are on curb.
- Push down through walker toward ground.
- Step up with stronger leg first, then follow with other leg.
- Reverse process for going down stairs. Place walker below step, then step down leading with weak leg first.



Personal Care

Using a Reacher

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

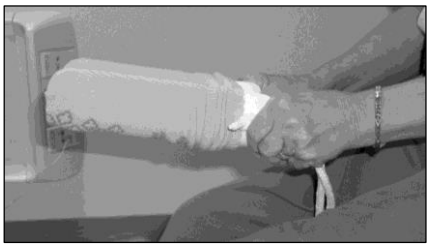


Using a Reacher to Pick Up Items

Reacher helps you obtain those items that fall while you are under "no bending" restrictions. Use it as an arm extension to reach to floor.

Using a Sock Aid

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



Removing a Sock with the Reacher

Use black hook on reacher to push sock over back of heel. You continue pushing sock completely off foot or use jaw of reacher to pull sock completely off foot.

Section Six

Post-operative Exercise Guidelines

Remember, this is a guide. Your physician, physician's assistant, nurses, or therapist may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your Guidebook as a handy reference for at least the first year after your surgery.

Importance of Exercise

A post-operative exercise program is an important component of a successful spine surgery. Check with your surgeon as to when you should begin Physical Therapy (generally 4-6 weeks after surgery). Patients should then work with their physical therapists to develop a maintenance program that is specific to their needs and is one that they enjoy. The ultimate goal for each patient is that strength, flexibility and mobility are restored through a progressive and safe exercise program. The goals and guidelines for exercise are noted on the next few pages.

- Exercising helps to stabilize your spine and improve the strength and flexibility in your legs and thus optimize your surgical outcome and functional mobility.
- Whenever comfortable and your doctor approves, you may start more vigorous low-impact exercises such as using a recumbent bike or walking on a treadmill. At 6 weeks, once your incision heals and your doctor approves, you may start water aerobics and swimming. These are good low-impact exercises for your entire body.
- Exercises are best done on a firm surface such as the floor or a firm bed. Protect your back. Keep good posture when exercising. Move slowly. Stop if you have excessive pain or discomfort.
- Listen to your body. If you notice increased discomfort or fatigue, recall what you did earlier that day or the day before. Chances are, you overdid things, and need to scale back until tolerated. Continue to slowly advance yourself as you tolerate the activity.
- Whenever you are performing an exercise, try to keep your abdominal muscles tight by "pulling your belly button in towards your spine." Make sure you are breathing continuously when performing the exercises. If you can't breathe comfortably as you perform the exercise, then you are tightening the muscles too much. Try counting out loud to keep from holding your breath.

Principles of Exercise

When Standing

1. Keep your head level with your chin slightly tucked in.
2. Stand tall by looking forward and keeping your shoulders over your hips.
3. Relax your shoulders.
4. Tighten your stomach muscles by pulling in your stomach. This will relieve undue stress on your spine.

When Sitting

1. Keep your head level and chin up.
2. Place your buttocks all the way to the back of the chair. A rolled towel in the small of the back provides lumbar support. Do not slouch.
3. Keep your feet flat on the floor to support your back. When your feet dangle, it pulls at your lower back. If your feet don't firmly touch the ground place your feet on a stool and put a pillow behind your back.

When Lying

1. Use a firm mattress.
2. Lie on your side with your hips and knees slightly bent and with a pillow between your legs.
3. Lie on your back with a pillow under your head and one under your knees to take the strain off your lower back.
4. Avoid lying on your stomach.

When Lifting (10 pound weight limit until seen at follow-up appointment and surgeon allows)

1. Keep your head level and chin up.
2. Keep your back straight, bend your knees and hips and squat as low as possible, keeping your feet apart and chest up.
3. Lift with the strength of your legs.
4. Never twist or turn while lifting.
5. Hold objects close to your body.
6. Use a partner whenever necessary, especially if it is heavy or an awkward size.

When Walking

1. Your goal is to advance the distance you walk each day.
2. For the first few days at home, do multiple short walks throughout the day.

3. This approach is better for reducing stiffness. As you can tolerate it, advance your walking distance.
4. Keep your head up, chest up, shoulders back and relaxed, buttocks and stomach tucked in and use the walker as needed. Typically, people use the walker if needed, for distance ambulation to keep the pressure off the back. As you can tolerate, wean yourself off the walker unless otherwise indicated by your surgeon or therapist.

Home Exercise Program

Weeks 1-2

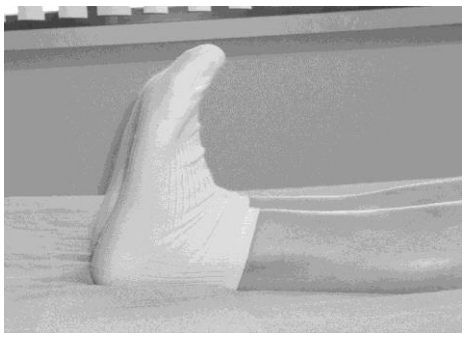
This is a guide. Exercises when allowed by surgeon.

After one to two days, you will be ready for discharge from the hospital. During weeks one and two your recovery goals are to:

- Continue to walk using the walker as needed. The walker typically reduces the stress placed on your spine and can help with balance. As your pain and discomfort lessen, increase your walking distance, and wean yourself from the walker as you feel comfortable or as your physical therapist indicates.
- Walk daily as far as possible, taking rest breaks as needed and slowly increasing your distance as tolerated.
- Gradually resume household tasks.
- Always adhere to your spinal precautions (no bending, lifting, twisting) when moving around.

Ankle Pumps

- Move ankles up and down as far as possible in each direction.
- Perform this exercise while lying flat or sitting in a chair at least 15-20 reps every waking hour



Weeks 3-12

The following are general goals for weeks 3-12:

- **Continue your Ankle Pumps and perform all your exercises as recommended by your physician and/or therapist**
- Continue to walk daily. Slowly and steadily increase your distance and endurance. At this time, most patients typically do not need the walker. If you are unsure or having issues with balance or weakness, continue to use the walker and consult your doctor or therapist for advice.
- Walk frequently, slowly increasing your distance.
- Gradually resume community tasks. Continue to avoid excessive activity and adhere to your spinal precautions with all mobility. Give yourself frequent breaks during activity. Do not do continuous house/garden work for more than 30 minutes without resting and allowed by your physician.
- Always adhere to your spinal precautions (no bending, lifting, twisting) when moving around.

Section Seven:

Body Mechanics

Remember, this is a guide. Your physician, physician's assistant, nurse, or therapist may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your Guidebook as a handy reference for at least the first year after your surgery.

General Rules
Body Mechanics

This section will give general tips on how to practice and adapt safe body mechanics to everyday work activities. There is **not** only 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. Check with surgeon or physical therapist for details.

Standing

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

Bending

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

Turning

- Think of upper body as one straight unit, from shoulders to buttocks.
- Turn with feet, not back or knees. Point feet in direction you want to go. Step around and turn. Maintain the spine's three curves.
- Do not keep feet and hips fixed in one position, and do not twist from back. Joints in back aren't designed for twisting; this kind of motion increases risk of injuring discs and joints.

Lifting

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

Kneeling Lift

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

Lifting Object from Floor

- Stand with box between feet, grasping both handles while squatting. Keeping back straight, extend knees, and lift box.
- Return to original position in same manner.

Reaching

- Store commonly used items between shoulder and hip level.
- Get close to the item. Use a stool or special reaching tool, if you need to.
- Tighten your abdominal muscles to support your back. Use the muscles in arms and legs (not back) to lift item.

Reaching Out

- When getting objects that are low, but not low enough to kneel or squat, brace yourself by placing hand on fixed object such as counter.

Twisting

- Avoid twisting trunk to reach things.
- Step in direction of object you are trying to reach.

Pushing vs. Pulling

- Push rather than pull large or heavy objects.
- Make sure to lower hips and keep back stabilized by tightening abdominal muscles.

Moving Objects

- Keep elbows close at sides and use total body weight and legs to push or pull.

Around the House

Household Chores
Making Bed • Do not bend over too far when making bed. • Try to move sheet to corners and kneel or squat to pull them around mattress.
Dusting • Use dusting implements that reach distances so don't have to reach far or lean head backward.
Cleaning • To clean overhead or tall objects, use step stool so you don't have to overreach.
Wiping Lower Surfaces • When wiping or dusting low objects, do not bend lower back. • Try to kneel or squat next to object.
Sweeping/Mopping • Use full length of broom to sweep. • Do not hold broom handle close to floor. • Try to keep spine as straight as possible. • Sweep with motion coming from hips instead of shoulders. • Do not get down on knees to scrub floors, instead use a mop.
Laundry - Loading Washer • Place laundry basket so bending and twisting can be avoided. • Place basket on top of washer or dryer instead of bending down with back.
Laundry - Unloading Washer • To unload small items at bottom of washer, lift up one leg when reaching down into washer. • Do not bend at waist to reach into washer when loading/unloading.
Laundry - Unloading Dryer • Do not bend at lower back when removing laundry from dryer. • Set basket on floor and squat/kneel next to basket when unloading dryer or front-load washer.

Household Chores

- Try "golfer's bend" to unload washer/dryer by supporting with one hand on unit and holding opposite leg straight out as you bend forward. This allows you to keep back straight and take some pressure off back with arm supporting you.

Lifting Laundry

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

Ironing

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

Kitchen

- Do NOT get on knees to scrub floors. Use mop and long-handled brushes.
- Plan ahead! Gather all cooking supplies at one time. Sit to prepare meal.
- Place frequently-used cooking supplies and utensils where they can be reached without much bending or stretching.
- To provide better working height, use high stool or put cushions on chair when preparing meals.
- Bend at knees and hips to get things out of lower portion of refrigerator. It is better to squat or kneel instead of bending.
- To get objects out of dishwasher, squat or kneel down by door.
- Try sitting on swiveling office chair to unload dishwasher. Place items up onto counter by pivoting around with feet. Then stand and put items into cupboard.

Bathroom

- Do NOT get on 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."
- Attach soap-on-a-rope so it is within easy reach.
- When reaching under sink, try to move lower by squatting and brace yourself with a fixed object.

Outdoors
Mowing • When pushing or pulling a mower, do not bend forward. • Keep your back straight. Bend at knees and hips. Push or pull with legs.
Raking • When raking, keep back straight by bending at hip. • Rake close to body using arms and shifting legs to perform rake motion. • Take frequent breaks.
Shoveling • Grab shovel close to end. • Shovel by leaning forward and shifting weight. • Use your legs, not your back.
Digging • When digging, place blade end into soil with handle straight up and down. • Step on top of blade then step off and angle shovel upward.
Planting • When weeding or planting, do not bend over from standing position. • Kneel or squat in area you are working. It is recommended you maintain squat position for only short period of time since this places stress on knees. • Can also sit on chair or stool to reduce stress on knees instead of kneeling.

Personal
Shaving • Stay upright with one foot on ledge of cabinet under sink.
Showering • When showering, try not to let head bend forward or backward (i.e., when washing hair). Squat down with knees or use tub bench and/or hand-held shower spout so neck remains straight.
Brushing Teeth • While brushing teeth, stand up straight and keep knee bent with foot on cabinet lip. • To avoid bending forward, spit into cup and use cup for rinsing mouth with water.

Personal

Support back by leaning one arm on sink/counter as you spit into sink. Bend at knees, not back.

Carrying Luggage

- Carry bags on both sides of body instead of one. Try to keep weight equal on both sides.

Children

Lift from Floor

- Do not bend over at back to pick up child. Instead, squat down, bring child close to chest and lift with legs.

In/Out of Car

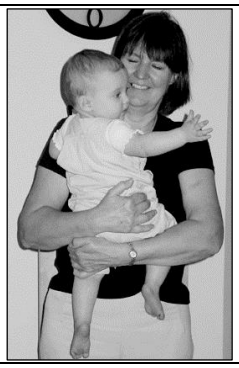
- When placing infant or child in car seat, always support yourself. Place knee on seat of car to unload the stress placed on back. Never bend over at waist.

Holding Child

- To maintain good posture and decrease stress on back, hold baby/child to center of body, not propped on hip.

Carrying Child

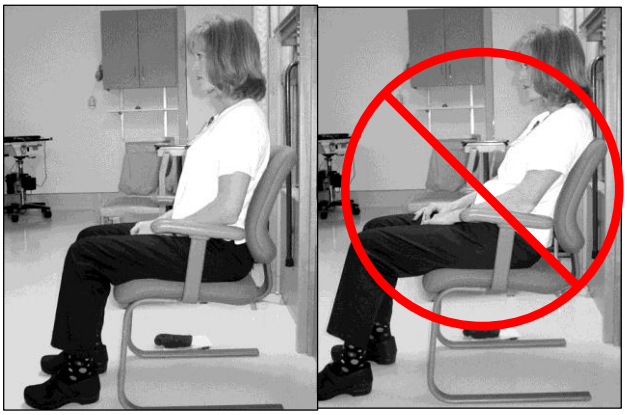
- Hold baby by cradling in arms.
- Keep baby close to body.
- Keep baby's head as upright as possible.



Work

Sitting

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

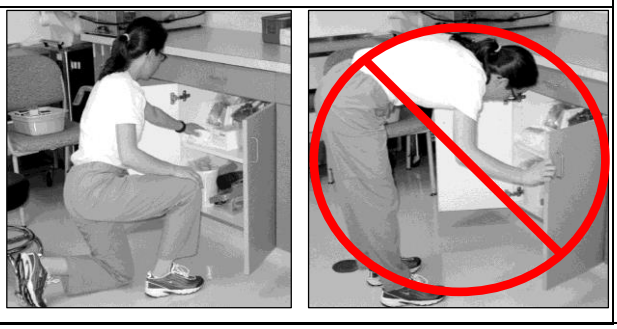


Computer Ergonomics

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

Lower Shelf

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



Work

Overhead Cabinets

- Do not overreach to high positions.
- Step up on stool so overhead objects are lower.

Safety Tips and Avoiding Falls

- Pick up throw rugs and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly anchored to floor or have non-skid backs.
- Be aware of floor hazards such as pets, small objects, or uneven surfaces.
- Provide good lighting throughout. Install nightlights in bathrooms, bedrooms, and hallways.
- Keep extension cords and telephone cords out of pathways. Do NOT run wires under rugs — this is a fire hazard.
- Do NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.
- Sit in chairs with arms. Makes it easier to get up.
- Rise slowly from either sitting or lying position to avoid getting light-headed.
- Do not lift heavy objects for first three months and then only with surgeon's permission.
- Stop and think and always use good judgment.

Dos and Don'ts for Rest of Your Life

Whether you have reached all recommended goals in three months, all spine surgery patients need to participate in a regular exercise program to maintain fitness and strength of muscles around their spine. With both your surgeon and primary care physicians' permission, you should be on a regular exercise program three to four times per week lasting 20-30 minutes. The aim of spine surgery is to return the patient to a full activity level, but conditions leading to spine surgery cannot be completely corrected by even the most successful operation, so certain precautions should be taken.

What to Do in General

- Avoid bending, lifting, and twisting as much as possible. It may be possible to return to strenuous physical activity, including heavy lifting, but discuss this with your surgeon.
- Maintain ideal body weight.
- DO NOT SMOKE!
- Maintain proper posture.
- When traveling, change positions every one to two hours to keep neck and back from tightening up.

Exercise - Do

- Choose low impact activity.
- Home program as recommended by your therapist and/or physician.
- Regular one- to three-mile walks.
- Home treadmill and/or stationary bike.
- Regular exercise at fitness center.
- Low-impact sports such as golf, bowling, gardening, dancing, swimming, etc.
- Consult surgeon or physical therapist about specific sport activities.

Exercise – Don't

- Do not run or engage in high-impact activities or activities that require a lot of starts, stops, turns, and twisting motions.
- Do not participate in high-risk activities, such as contact sports.
- Do not take up new sports requiring strength and agility until you discuss it with surgeon or physical therapist.

Section Eight:
Discharge Instructions

Lumbar Decompression, Discectomy and Laminectomy

1. **Immediate post-op to discharge from hospital:** You may get out of bed with assistance as soon as comfortable. Keep wound clean and dry.

2. **Discharge to first office visit:** If you were given a back brace, wear this when out of bed. Continue to walk as desired, gradually increasing the distance. You may shower (not tub bathe) once there is no drainage from the incision or per your physician's instruction. Drainage usually stops within 3-4 days post-op. Keep the incision dry at all times. After showering, remove dressing, pat incision dry and replace dressing if instructed. Do not tub bathe or swim. You may drive short distances as soon as you feel comfortable and are allowed by your physician. No driving while taking narcotics. For the next week, you should rest at home. Avoid strenuous activity. Avoid bending, lifting and twisting for the next month. You can walk as much as is comfortable, but no other exercise is advisable for now. Call if there is any incision drainage, redness or fever. It is not unusual to have some leg pain and/or numbness. Please contact your surgeon if these symptoms are severe.

3. **First visit (approximately 2 weeks) post-op:** Gradually increase activities. Remaining on feet for longer periods, increasing walking distances. May return to sedentary job at 2 weeks if commute is less than 20 minutes and you are pain free. No bending, twisting or lifting more than 10 pounds. Sit only in chairs with good lumbar support. Sexual intercourse when comfortable (patients on bottom or side). May start regular aerobic activity such as vigorous walking, Stairmaster, or low-impact aerobic exercise classes If allowed after first follow up appointment

4. **Six to twelve weeks:** You may return to physical labor or light duty if pain free, lifting 25 pounds or less when allowed by your surgeon. No bending or twisting. You may drive up to one hour. You may swim if allowed by your surgeon. Continue your exercise program. You may be shown specific therapeutic exercises at your six-week visit.

Swimming: *refrain from pool activity that causes repetitive twisting of the head and neck. Even the simple activity of walking in the water can be therapeutic during this time of recovery once allowed by your surgeon.*

Lumbar Fusion

1. **Immediate post-op to discharge from hospital:** You may get out of bed as soon as comfortable with assistance. Keep would clean and dry.

   Discharge to first office visit: If you were given a back brace, wear this when out of bed. Continue to walk gradually increasing your distance. You may shower (not tub bathe) once there is no drainage from the incision or per your physician's instruction. Drainage usually stops within 3-4 days post-op. After showering, pat incision dry and replace dressing as directed. Do not tub bathe or swim.

2. **First visit (approximately 2 weeks) post-op:** Gradually increase activities. Remain on feet for longer periods of time and increase walking distances. You may drive short distances for necessities at three weeks and return to sedentary job at three to six weeks if commute is less than 20 minutes and you are pain-free as allowed by your surgeon. No driving while taking narcotics. No bending, lifting or twisting. Limit sitting and use good lumbar support to avoid placing undue pressure on the spine. Sexual intercourse if comfortable (patient on bottom). Wear back brace whenever up as ordered.

3. **Six to 12 weeks:** May return to non-strenuous work if you are pain-free and allowed by surgeon. Avoid bending, lifting or twisting anything over ten pounds (equals a gallon of milk) until cleared by surgeon. Start regular low-impact aerobic activity such as vigorous walking, Stairmaster or low-impact aerobic exercise classes as allowed by your surgeon. You may swim if allowed by your surgeon. You may drive up to 30 minutes. You may be shown specific therapeutic exercises at your six-week visit. You should wear your back brace whenever up if ordered.

4. **Twelve to 24 weeks:** Continue to avoid lifting (less than 10 pounds) or any repetitive bending or twisting of back until cleared by surgeon. Wear back brace, if ordered, as your physician advises. Continue these restrictions until advised that fusion has healed.

Swimming: *refrain from pool activity that causes repetitive twisting of the head and neck. Even the simple activity of walking in the water can be therapeutic during this time of recovery once allowed by your surgeon.*

Appendix

Pre-op Class: Edward Hospital

This class is held most Wednesdays from 4:00 pm - 5:00 pm on the Orthopedic Unit Conference Room located on the 3rd floor in the South area of the hospital. You may park in the South lot or use the Valet service when available. Directions for the hospital can be found below.

If unable to attend, please watch the spine class video on the Edward Hospital intranet. It is approximately 20 minutes long. The link is: **https://www.eehealth.org/ortho-spine**

Directions: Edward Hospital, South Entrance and Parking
Check-in at Outpatient Registration, South Entrance, 1st floor
Meet escort to class by fish tank, near outpatient registration
Address: 801 S. Washington
Naperville, IL 60540

Pre-op Class: Elmhurst Hospital

This class is held every Wednesday from 3:30 pm - 4:30 pm. Classes are held in the lower level conference area. To schedule your class call Elmhurst Hospital CareMatch at (331) 221-2273.

Directions: Park in the green lot and enter through the East Entrance. Take the east elevators to the lower level conference area.
Address: Elmhurst Hospital
155 E. Brush Hill Road
Elmhurst, IL 60126

Please bring your Coach and Guidebook with you to class

Directions can be found for both Edward and Elmhurst Hospitals on our website:
https://www.eehealth.org/ortho-spine

Click on "Find a location" at the top, then choose and click Edward or Elmhurst Hospital. Choose directions; you may enter your address to get specific directions to the hospital.

Exercise Your Right
Put Your Health-care Decisions in Writing

It is the policy of the Orthopedic Center to place patients' wishes and individual considerations at the forefront of their care and to respect and uphold those wishes.

What are advance medical directives?
Advance directives are 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 Hospital 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:

- 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.

On admission to the hospital, you will be asked if you have an advance directive. If you do, please bring copies of the documents to the hospital with you, so they can become part of your medical record. Advance directives are not a requirement for hospital admission. Advance directive forms are available upon request at the hospital.

Anesthesia and You

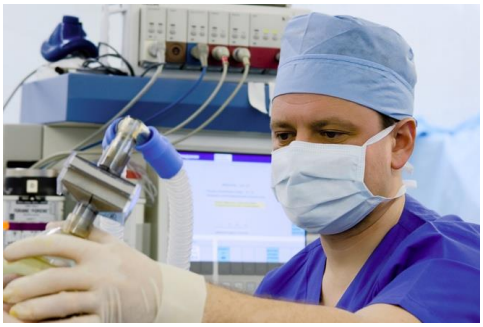
Who are the anesthesiologists?
The operating room, PACU (post-anesthesia care unit) and intensive care units are staffed by board-certified and board-eligible physician anesthesiologists. Each member of the service is an individual practitioner with privileges to practice at the hospital.

What type of anesthesia will be used?
Spine surgery requires the use of general anesthesia, which provides loss of consciousness and requires the use of an endotracheal tube.

Will I have side effects?
Your anesthesiologist will discuss the risks and benefits associated with this anesthetic option, as well as any complications or side effects that may occur.

Nausea or vomiting may be related to anesthesia or the type of surgical procedure. Although less of a problem today because of improved anesthetic agents and techniques, these side effects continue to occur for some patients. Medications to treat nausea and vomiting will be given, if needed.

The amount of discomfort you experience will depend on several factors, especially the type of surgery. Your doctors and nurses can relieve pain with medications. Your discomfort should be tolerable, but do not expect to be totally pain-free. The staff will teach you the pain scale (0-10) to assess your pain level.



What will happen before my surgery?
You will meet your anesthesiologist immediately before your surgery.

Your anesthesiologist will review all information on the medical record to evaluate your general health. This will include your medical history, laboratory test results, allergies, and current medications. He or she will also answer any questions you may have.

You will also meet your surgical nurses. Intravenous (IV) fluids will be started and pre-operative medications may be given, if needed. Once in the operating room, monitoring devices will be attached such as blood pressure cuff, EKG and other devices for your safety. At this point, you will be ready for anesthesia.

What does my anesthesiologist do during surgery?
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 can I expect after the operation?
After surgery you will be taken to the post-anesthesia care unit (PACU). You will be watched closely by specially trained nurses. During this period, you may be given extra oxygen and your breathing and heart functions will be closely observed. Your pain level will be assessed and medication will be given to obtain an acceptable level of comfort. An anesthesiologist is available to provide care as needed for your safe recovery.

May I request an anesthesiologist?
Although most patients are assigned an anesthesiologist, you may request one based on personal preference. 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 surgeon's availability.

Smoking Cessation Programs

Did you know that:

- Within 24 hours of quitting your risk for heart attack decreases?
- Within 48 hours your lung function can increase up to 30 percent?
- Within one month nicotine is no longer in your body?
- The benefits of stopping tobacco use never end?

The good news is that it can be done! Thousands of people have walked away from tobacco. The bad news is that many well-intentioned people fail. Nicotine is the most addictive drug known. Staying away means breaking the addiction and adopting new habits. It can mean lifestyle changes. Statistics show that smokers attempting to quit on their own succeed only 7 percent of the time. A minimum of 4-6 weeks of smoking cessation is required to reduce your risk closer to a standard patient that does not smoke.

Smoking Cessation Programs

Leading a healthier, happier life takes more than good intentions. It takes action. And it's easier to take action when you're supported by like-minded individuals with similar goals. **Freedom From Smoking** is a smoking cessation program offered at Edward-Elmhurst Health in affiliation with the American Lung Association. Edward-Elmhurst Health offers both group smoking cessation classes call - (630) 527-6363, as well as one-on-one hypnosis and counseling sessions to aid in smoking cessation - call (331) 221-6135 for an appointment.

The Illinois Department of Public Health funds the **Illinois Tobacco Quitline**, which is operated by the American Lung Association. This partnership was formed in 2001 to provide tobacco cessation services to the citizens of Illinois. There is no cost for the counseling services. Hours of operation are from 7 a.m. to 11 p.m., Sunday through Saturday. For more information, call (866) QUIT-YES or (866) 784-8937.

MEDICATIONS TO STOP BEFORE SURGERY AS DIRECTED BY YOUR SURGEON AND PRESCRIBING PHYSICIAN

Anticoagulants and Anti-platelets (Blood thinners)

- Plavix (Clopidogrel)
- Prasugrel (Effient)
- Warfarin (Coumadin)
- Dabigatran (Pradaxa)
- Rivaroxaban (Xarelto)
- Anagrelide (Agrylin)
- Aspirin
- Dipyridamole (Persantine)
- Cilostazol (Pletal)
- Ticagrelor (Brilinta)
- Ticlopidine (Ticlid)
- Vorapaxar (Zontivity)
- Apixaban (Eliquis)
- Acenocoumarol
- Aggrenox (Aspirin/Dipyridamole)

NSAIDS (nonsteroidal anti-inflammatory drugs)

- Ibuprofen (Advil, Motrin, Midol, Nuprin, Pamprin)
- Naproxen (Aleve, Naprosyn, Anaprox)
- Oxaprozin (Daypro)
- Aspirin (Bufferin, Ecotrin, Bayer, ASA)
- Declofenac (Cataflam, Voltaren, Arthrotec)
- Ketorolac (Toradol)
- Etodolac (Lodine)
- Nabumetone (Relafen)
- Indomethacin (Indocin)
- Piroxicam (Feldene)
- Meloxicam (Mobic)
- Diflusinal
- Fenoprofen (Naflon)
- Floctafenine
- Flurbiprofen (Alti-Flurbiprofen, Ansaid, Apo-Flurbiprofen, Froben)

- Froben (SR, Novo-Flurprofen, Nu-Flurprofen)
- Ketoprofen (Active-Ketoprofen)
- Meclofenamate (Meclomen)
- Mefenamic Acid (Ponstel)
- Sulindac
- Tiaprofenic Acid
- Tolmetin

Anorexiants – Appetite suppressants

- Phentermine (*Adipex, Duromine, Fastin, Ionamin, Metermine*, etc.)
- Diethylpropion (*Tenuate)*
- Rimonabant (*Acomplia)*
- Sibutramine (*Meridia, Reductil*)
- Oxymetazoline (*Afrin*)

Opioid Agonist-Antagonist

- Suboxone

Glossary of Terms

Annulus – The outer rings of rigid fibrous tissue surrounding the nucleus in the disc.

Anterior – A relative term indicating the front of the body.

Bone Spur – An abnormal growth of bone, usually present in degenerative arthritis or degenerative disk disease.

Bone Stimulator- Portable battery powered non-invasive device that provides electromagnetic supplemental treatment. This may help to promote bone growth and healing after spinal fusion. Used only when indicated and arranged by your surgeon's office.

Cartilage – A smooth material that covers bone ends of a joint to cushion the bone and allow the joint to move easily without pain.

Computed tomography scan (also called a CT or CAT scan) – A diagnostic imaging procedure that uses a combination of x-rays and computer technology to produce cross-sectional images, both horizontally and vertically, of the body. A CT scan shows detailed images of any part of the body, including the bones, muscles, fat and organs. CT scans are more detailed than general x-rays.

Congenital – Present at birth.

Continuous Pulse Oximeter – Device to measure oxygen concentration most commonly placed on your finger

Contusion – A bruise.

Cervical Spine – The part of the spine that is made up of seven vertebrae and forms the flexible part of the spinal column. The cervical spine is often referred to as the neck.

Cortico-steroids – Potent anti-inflammatory hormones that are made naturally in the body or synthetically for use as drugs; most commonly prescribed drug of this type is prednisone.

Degenerative Arthritis – The inflammatory process that causes gradual impairment and loss of use of a joint.

Degenerative Disc Disease – The loss of water from the discs that reduces elasticity and causes flattening of the disks.

Disc – The complex of fibrous and gelatinous connective tissues that separate the vertebrae in the spine. They act as shock absorbers to limit trauma to the bony vertebrae.

Discectomy – The complete or partial removal of the ruptured disc.

Dura – The outer covering of the spinal cord.

Dural Tear – A laceration or tear of the dura that can occur during surgery. Leakage of spinal fluid occurs at this site. This is often treated with bed rest for 24-48 hours thus allowing the tear to heal.

Facet – The small plane of bone located on the vertebra.

Foramina – Plural form of foramen (a natural opening or passage through a bone).

Foraminotomy – The surgical procedure that open up the foramen. This is done for relief of nerve root compression.

Fracture – A break in a bone.

Fusion – The surgical procedure that joins or “fuses” two or more vertebrae together to reduce movement at this joint space.

Herniated Disc – The abnormal protrusion of soft disc material that may impinge on nerve roots. Also referred to as a ruptured or protruding disc.

Inflammation – A normal reaction to injury or disease which results in swelling, pain and stiffness.

Joint – Where the ends of two or more bones meet.

Lamina – The bone that lies posterior to the vertebrae.

Laminectomy – The removal of the lamina to allow for decompression of the spinal nerves.

Ligaments – Flexible band of fibrous tissue that binds joints together and connects various bones.

Lumbar Spine – The portion of the spine lying below the thoracic spine and above the pelvis. This part of the spine is made up of 5 vertebrae. Also called the lower back.

Magnetic Resonance Imaging (MRI) – A diagnostic procedure that uses a combination of large magnets, radiofrequencies, and a computer to produce detailed images of organs and structures within the body.

Myelopathy – A condition that is characterized by functional disturbances due to any process affecting the spinal cord.

NSAID – An abbreviation for non-steroidal anti-inflammatory drugs, which do not contain corticosteroids and are used to reduce pain and inflammation; aspirin, ibuprofen and naproxen, are examples NSAIDs. SEE LIST

Nerve Root – The portion of a spinal nerve that lies closest to its origin from the spinal cord.

Neuropathy – A functional disturbance of a peripheral nerve.

Nucleus Pulposis or Nucleus – The relatively soft center of the disc that is protected by the rigid fibrous outer rings.

Osteoporosis – A condition that develops when bond is no longer replaced as quickly as it is removed.

Osteophyte – A bony outgrowth.

Pain – An unpleasant sensory or emotional experience primarily associated with tissue damage.

Pain Threshold – The least experience of pain that a person can recognize.

Pain Tolerance Level – The greatest level of pain that a person is prepared to tolerate.

Paresthesia – An abnormal touch sensation, such as burning or tingling.

PCA – Patient controlled analgesia pump (pain medicine tool that the patient controls)

PCT – Patient Care Technician (nursing assistant)

Posterior – A relative term indicating that an object is to the rear of or behind the body.

Post op – Refers to the days after surgery.

Radiculopathy – A condition involving the nerve root that can be described as numbness, tingling or pain that travels along the course of a nerve.
Sacral Spine – The last section of the spinal column located below the lumbar spine. It is made up of several semi-fused pieces of bone.

Sciatica (also called lumbar radiculopathy) – A pain that originates along the sciatic nerve.

Scoliosis – A lateral, or sideways, curvature and rotation of the back bones (vertebrae), giving the appearance that the person is leaning to one side.

Soft tissues – The ligaments, tendons, and muscles in the musculoskeletal system.

Spinal Stenosis – A narrowing of the vertebral canal, nerve root canals, or intervertebral formina of the spine caused by encroachment of bone upon the space. Symptoms of foraminal stenosis are caused by compression of the nerves and include pain, numbness and/or tingling,

Spine –Series of stacked bones (vertebrae), discs and ligaments extending from the base of the skull to the small of the back that surround and protect the spinal cord and provide support to the upper body, chest, stomach and back. The cervical, thoracic and lumbar regions of the spine are composed of 24 articulating/flexible vertebrae.

Spinous Process – The part of the vertebrae that you can feel through your skin.

Spondylosis (spinal osteoarthritis) – A degenerative disorder that may cause loss of normal spinal structure and function. Although aging is the primary cause, the location and rate of degeneration is individual. The degenerative process of spondylosis may impact all of the spine creating over growth of bone and affecting the intervertebral discs and facet joints.

Spondylolisthesis – A displacement of one vertebra over another.

Sprain – A partial tear of a ligament.

Strain – A partial tear of a muscle of tendon.

Stress fracture – A bone injury caused by overuse.

Tendon – The tough cords of tissue that connect muscles to bones.

Thoracic Spine – The portion of the spine lying below the cervical spine and above the lumbar spine. This part of the spine is made up of 12 vertebrae.

Torticollis (also called wryneck) – A twisting of the neck that causes the head to rotate and tilt on an angle.

Transverse Process – The wing of bone on either side of each vertebra.

Trigger Point – Hypersensitive area of muscle or connective tissue, usually associated with myofascial pain syndromes.

Ultrasound – A diagnostic technique which uses high-frequency sound waves to create an image on the internal organs.

Vertebra(e) – The bone or bones that form the spine.

X-ray – A diagnostic test which uses invisible electromagnetic energy beams to produce images of internal tissues, bones and organs onto film.

Healthy Driven
Edward-Elmhurst HEALTH

Call Don't Fall

Fall Prevention at the Hospital

While you're at Edward, your safety is our priority. Please speak up when you need help.

Your doctor and/or nurse will let you know when you are able to walk without assistance. Before this time, please "Call don't fall!" Even if you feel capable, call your nurse or patient care tech for help when getting out of bed, going to and from the bathroom or walking.

- Call for help when getting out of bed.
- Take your time. Be sure you are not feeling weak or dizzy.
- Wear non-skid footwear.
- Use canes, walkers and assist devices as instructed.

Dec. 2015

Healthy Driven
Edward-Elmhurst HEALTH

Fall Prevention at Home

Each year, thousands of Americans fall at home. Many of them are seriously injured, and some are disabled. All age groups are affected, with adults over age 60 ranking highest for these injuries.

The points below address hazards found in your home that have been associated with falls. Attention to these hazards now may prevent a fall in the future.

General

- Keep pathways clear and free of clutter.
- Remove throw rugs or use double-sided tape or a non-slip backing so the rugs won't slip.
- Coil or tape wires next to the wall to avoid tripping over them.
- Keep objects off the stairs.
- Be sure carpet on stairways is firmly attached. Apply non-slip rubber treads to the stairs if there is no carpet.
- Fix loose or uneven steps.
- Fix loose handrails.
- Maintain adequate lighting.

Kitchen

- Keep things you use often on the lower shelves.
- Use a sturdy step stool when climbing. Do not use a chair.

Bathroom

- Use a non-skid mat or adhesive strips in the bathtub or shower.
- Install grab bars in the tub, shower and toilet area.

Bedroom

- Place a lamp close to the bed where it is easy to reach.
- Use a night light so you can see where you're walking.

Other

- Exercise regularly if not contraindicated by your physician. Exercise makes you stronger and improves your balance and coordination.
- Review your medications with your Doctor. Some medicines can make you sleepy or dizzy.
- Have your vision checked. Poor vision can increase your risk of falling.
- Get up slowly after you sit or lie down.
- Wear shoes both inside and outside the house.
- Keep emergency numbers near each phone.
- Consider wearing an alarm device that will bring help in case you fall and can't get up.

Directions and Contacts - Edward Hospital

Directions

Address: 801 S. Washington
Naperville, IL 60540
Hospital website: **https://www.eehealth.org/ortho-spine**

Click on "Find a location" at the top, then choose and click Edward Hospital. Choose directions; you may enter your address to get specific directions to the hospital.

Contacts for Edward Hospital

___ **Pre-admission Testing (PAT)**
Phone: (630) 527-3325
FAX: (630) 527-3334

___ **Ambulatory Surgery Care Center (ASCC)**
Phone: (630) 527-3536 or (630) 527-3524

___ **Care Coordinator (CC)**
Phone: (630)527-3680
Email: karen.murphy@eehealth.org

___ **Discharge Planning Case Manager or Social Worker**
Phone: (630) 527-3569

___ **Edward Orthopedic Center**
Phone: (630) 527-3250

___**Outpatient Rehab Services**
Phone: (630) 527-3375

___**Inpatient Rehab Services**
Phone: (630) 527-5371

Directions and Contacts - Elmhurst Hospital

Directions

Address: 155 E. Brush Hill Road
Elmhurst, IL 60126
Hospital website: **https://www.eehealth.org/ortho-spine**

Click on "Find a location" at the top, then choose and click Elmhurst Hospital. Choose directions; you may enter your address to get specific directions to the hospital.

Contacts for Elmhurst Hospital

___**Pre-admission Testing (PAT)**
Phone: (331) 221-3920
FAX: (331) 221-3885

___ **Pre-op and Recovery Unit**
Phone: (331) 221-1072

___ **Surgery Reception Desk**
Phone: (331) 221-0490

___**Discharge Planning Case Manager or Social Worker**
Phone: (331) 221-1146

___**Outpatient Rehab Services**
Center for Health Phone: (331) 221-6044
Lombard Center for Health Phone: (331) 221-5820

___**Inpatient Rehab Services**
Phone: (331) 221-0590

Discharge Education

Narcotic Pain Medications

Names of medicines: Norco, Vicodin, Oxycodone IR, Oxycontin SR

What are narcotic pain medicines? – Narcotic pain medicines are a group of medicines that relieve pain.

Narcotics come in lots of different forms, including:

- Pills and liquids that you swallow
- Patches that you wear on your skin
- Liquids that are given as a shot

When are narcotics used? – Narcotics are used to treat severe pain caused by all sorts of medical problems and injuries. They are also used to manage pain after surgery.

Are all narcotics the same? – Yes and no. All narcotics work on the same chemical process in the body, but they do it in different ways. Some narcotics need to be taken more often during the day than others to work for certain kinds of pain. And some are more likely than others to cause certain side effects. Plus, the effects of narcotics are different depending on whether they come in a pill, a patch, a shot, or in some other way.

Are narcotics safe for everyone? – Narcotics are safe for most people who need them for severe pain. If you take these medicines, take **ONLY** the amount prescribed and only as often as prescribed. Do not chew, cut, or crush pills or capsules that release medicine slowly.

What side effects can narcotics cause? -- Narcotics can cause some side effects that are just bothersome and some that are dangerous.

Call for an ambulance or go to the hospital if you (or someone close to you):

- Can't seem to wake up
- Become very confused
- Appear to be drowsy and breathing very slowly
- Pass out or have seizures
- Become unable to urinate

Talk to your doctor or nurse if you have any of these *side effects* and they bother you:

- **Constipation** – Your doctor or nurse might suggest you take medicines to prevent or treat constipation. It's also important to drink plenty of water

- Nausea, vomiting, or itchiness – If you have any of these problems, your doctor might be able to switch you to a different narcotic

- Dry mouth

- Feel dizzy, sleepy, or have trouble thinking clearly
- Vision problems
- Feel clumsy or fall down

What happens if I take more than the recommended dose? -- Taking more than the recommended dose of a narcotic or combining narcotics with other medicines without a doctor's OK can cause serious problems. For example, it can make you pass out or stop breathing.

Anybody who takes too much of any medicine at once should call a doctor or the Poison Control Hotline (1-800-222-1222). If the person is not breathing or is not conscious, call for an ambulance (in the US and Canada, dial 9-1-1)

Should I worry about addiction? – Taking narcotics to manage pain or other symptoms does not lead to addiction in most people. But it can be a problem for people who have problems with drug or alcohol use.

To reduce the changes of addiction, you should:

- Never take narcotics that were not prescribed to you
- Take narcotics only for as long as your doctor or nurse prescribes, and only at the dose he or she recommends
- If the problem for which the narcotics were prescribed gets better, throw away any leftover narcotics. Do not keep old narcotics around the house
- Tell your doctor or nurse if the narcotics seem to stop working

Reference: http://online.lexi.com/lco/action/pcm/print/leaflet/3852328

Healthy Driven
Edward-Elmhurst HEALTH

Drop Boxes for Prescriptions

- Bring over-the-counter, unused, unwanted, expired, and household medications
- Cross off personal information on the label OR put pills in a plastic bag
- NO sharp needles, or EPI pens allowed
- NO radioactive medicines
- NO household chemical waste

Addison
Addison Police Department
3 Friendship Plaza

Aurora
Aurora Police Department
1200 E. Indian Trail

Bensenville
Bensenville Police Department
345 E. Green Street

Bloomingdale
Bloomingdale Police Department
201 S. Bloomingdale Road

Burr Ridge
Burr Ridge Village Hall
7700 S. County Line Road

Clarendon Hills
Clarendon Hills Police Department
448 Park Avenue

Downers Grove
Walgreens
1000 Ogden Avenue

Elmhurst
Elmhurst Hospital
Door 28 near ER
155 E. Brush Hill Road

Elmhurst Police Department
125 E. 1st Street

Naperville
Edward Hospital
South Lobby
801 S. Washington Street

Fire Station No. 1
964 East Chicago Avenue

Fire Station No. 2
601 E. Bailey Road

Fire Station No. 3
1803 N. Washington Street

Fire Station No. 4 & Training Facility
1971 Brookdale Road

Fire Station No. 5
2191 Plainfield/Naperville Road

Fire Station No. 6
2808 103rd Street

Fire Station No. 7 &
Administration Building
1380 Aurora Avenue

Fire Station No. 8
1320 Modaff Road

Fire Station No. 9
1144 W. Ogden Avenue

Fire Station No. 10
3201 95th Street

Naperville Police Department
1350 Aurora Avenue

Walgreens
63 W. 87th Street

Glendale Heights
Glendale Heights Police Department
300 Civic Plaza

Glen Ellyn
Glen Ellyn Police Department
535 Duane Street

Hanover Park
Hanover Park Police Department
2011 W. Lake Street

Itasca
Itasca Police Department
540 W. Irving Park Road

Lisle
Lisle Police Department
5040 Lincoln Avenue

Plainfield
Plainfield Police Department
14300 S. Coil Plus Drive

Roselle
Roselle Police Department
103 S. Prospect Street

Schaumburg
Schaumburg Police Department
1000 W. Schaumburg Road

Westmont
Farland Pharmacy, Inc
2 North Cass Avenue

Westmont Police Department
500 N. Cass Avenue

Wheaton
DuPage County Sheriff
501 N. County Farm Road

Wood Dale
Wood Dale Police Department
404 N. Wood Dale Road

Woodridge
Woodridge Police Department
1 Plaza Drive

For additional locations in and outside of DuPage County, visit **http://gis.dupageco.org/rxboxlocations/**

Need help?

If you're struggling with addiction or are having trouble controlling your use of painkillers, please call **Linden Oaks Behavioral Health** at (630) 305-5027.

Pain Management with Opiates

(Narcotics is a term used outside of healthcare to describe certain medications that include opiates.)

Why opiates?

- Opiates are pain medications used to treat moderate or severe pain. These medicines are often necessary for acute pain and can be part of a plan that combines medication and non-medication options to better manage your pain.
- The goal of therapy is to increase function and recovery.
    - Some pain is normal, and it is not realistic to completely eliminate pain.
- Opiates are safe for most people if taken as directed for moderate to severe pain.

How do I manage my pain with opiates?

- Try non-medication options to manage your pain like ice, positioning, exercise, relaxation, and thoughts or activities to take your mind off your pain.
- Discuss with your doctor if Tylenol and/or Motrin (Ibuprofen, Advil, and Aleve) are safe for you to take to manage your pain with opiates or to minimize the need for opiates. Some opiates have Tylenol in them.
- Only take opiates when you need them for moderate or severe pain that is not relieved with the options above, when approved by your doctor
- Take the medication as prescribed and never take more than prescribed.

Side effects and risks

- Suspected allergic reaction with rash or shortness of breath or decreased ability to breathe normally/respiratory depression - **Call 911**
- Sleepiness or dizziness: do not drive, use machinery, or any activity requiring mental alertness until you know how this medicine affects you. **Notify your doctor if you are too drowsy or dizzy.**
- Avoid alcoholic drinks and medications that make you drowsy such as sleep aids, medications for anxiety unless prescribed by your physician.
- If you have sleep apnea, opiates can make apnea worse.
- Nausea, constipation, dry mouth: **If you are unable to eat due to nausea or if constipation persists for more than 3 days**, call your doctor
- Confusion: **stop medication and call your physician.**

Weaning the medication

- As you recover, your pain should improve and you will require less opiate. As your pain improves, you will take fewer pills per day and will take the opiate less frequently.
- You may develop tolerance to the medicine. Tolerance means that you will need a higher dose of the medicine for pain relief. Tolerance is normal and is expected if you take the medication for a long time.
- Do not <u>suddenly</u> stop taking your medicine because you may develop a severe reaction. Your body becomes used to the medicine over time, and you should discontinue the medication slowly. If you received instructions from your physician about tapering/weaning the opiate you are taking, follow those instructions.
- You should wean off the opiate and eventually not need to take the opiate for pain.
- Use of opiates carries the risk of developing a substance use disorder (addiction), and potentially overdose with high doses and prolonged use. Substance use disorders are treatable, but it is important to talk to your doctor right away if you feel your use of your medication is becoming excessive or problematic. Signs that this may be the case include using more medication than prescribed, using the medication to feel better emotionally (rather than for treating pain), taking additional pain medication provided to you by others.

Safe storage and disposal

- Keep opiates in a secured place (locked cabinet, drawer) out of reach of visitors and children.
- Dispose of your unused opiate.
    - See Drop Box locations at http://rxdrugdropbox.org/
    - Mix medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, kitty litter, or used coffee grounds and place in a plastic ziplock bag – then throw into household trash.

Healthy Driven
Edward-Elmhurst HEALTH

Medication Take-Back Program

Protect your family, friends and the environment by disposing of dangerous medications.

Simply drop your **unused, unwanted or expired controlled medications** in one of our handy collection bins 24/7/365.

Restricted items include

- Needles/syringes
- Liquids
- Aerosols
- Inhalers
- Thermometers
- Illegal drugs

BIN LOCATIONS

Edward Hospital – 801 S. Washington Street, Naperville
Hallway between the south parking garage and south lobby off of Osler Drive

Elmhurst Hospital – 155 E. Brush Hill Road, Elmhurst
Vestibule of Door 28 near the Emergency Department (Door just to the right of the main ED Entrance)

NOTES

NOTES