

Advanced Orthopedics

at Baltimore Washington Medical Center



Patient's Guide to Spine Surgery

Patient Guide for Spine Surgery

Thank you for choosing Advanced Orthopedics at BWMC for your spine surgery. The Spine Program at BWMC is a comprehensive specialized program involving physicians, nurse practitioners, physician assistants, nurses, physical therapists, occupational therapists and other personnel trained in the care of patients undergoing spine surgery.

More than 200,000 people undergo spine surgery each year. Almost all of them have pain they can no longer tolerate, and many suffer from nerve compression, which may produce numbness, tingling or weakness. The surgery relieves pain, restores independence and returns patients to work or daily activities.

Most patients having spine surgery recover quickly. Patients may be able to walk or even go home that day after surgery. Generally, patients are able to return to full activities in six to twelve weeks. Patients undergoing more complicated spine operations may require three to six months recuperation.

The Spine Surgery Staff at BWMC has developed a comprehensive planned course of treatment. A team of health care providers will participate in your surgery and recovery process. The most important members of the team are you and your coach. Physicians, nurse practitioners, physician assistants, nurses, physical and occupational therapists, will all play an important role, but you and your coach are key to a successful and complete recovery from spine surgery.

The Spine Program at BWMC includes:

- Health care providers who specialize in the care of spine surgery patients
- Emphasis on quality individualized care
- Family or friends who participate as coaches in the recovery process
- Nurse Practitioners who coordinate care from preoperative teaching to discharge planning
- A dedicated case manager and a social worker who facilitate discharge planning
- A comprehensive patient handbook

Using the Patient Guide

Preparation, education, continuity of care and a pre-planned discharge plan are essential for a successful surgery. Communication is essential to this process. The Patient Guide is an educational tool for patients and health care providers; 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

The handbook is just a guide. Your physician, nurse practitioner, or therapist may add to or change some of the recommendations. Always use their recommendations and ask questions if you are unsure of any information. Take the first important step right now by reading this handbook and becoming familiar with the care and recovery involved with spine surgery.

Selecting your Coach

It is very important that you have someone to assist you through your surgery and recovery. Your “coach” can be a family member or a friend who is able to:

- Attend the preoperative evaluation with you
- Attend therapy sessions with you while in the hospital
- Attend a training session for discharge needs
- Stay with you at home the first week after discharge

Preparing for Surgery

As you prepare for surgery, you will meet the team of health care professionals who will participate in your care and guide you through the recovery process. Together, you and your health care team will work toward regaining your ability to care for yourself and return to normal activities.

Pre-Registration

After your surgeon has scheduled you for surgery, a Baltimore Washington Medical Center staff member will call to pre-register you by phone.

If you wish to contact the Pre-Registration Department, please call 410-787-4437.

You will need to have the following information ready when you are called:

- Patient's full legal name and address
- Home phone number and daytime number if different than home number
- Religion
- Marital status
- Social Security Number
- Name of insurance holder, his/her home address and phone number, and his/her work address and work phone number
- Name of insurance company, mailing address, policy and group number(s)
- 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)

Before surgery, you will need to contact your insurance company. You will need to find out if:

- Pre-authorization, pre-registration or a referral from is required.
- You need a second opinion for surgery.

Failure to make this call may result in a reduction of benefits or possible cancellation of surgery.

If you are a member of a Health Maintenance Organization (HMO), you will go through the same registration procedure. However you will need to call your HMO once your procedure has been scheduled to arrange for pre-admission testing that must be completed.

If you are a member of:

- **Columbia/Freestate**, you need to call the Pre-Operative Coordinator for the Annapolis Region at 410-573-4435 soon after you procedure has been arranged to schedule tests.
- **MDIPA**, you need to call your primary care physician to schedule tests. MDIPA has exclusive contracts with certain vendors for tests and radiology.
- **Another HMO**, you need to call your primary care physician for pre-authorization and to schedule pre-admission tests. Routine tests may need to be done by participating providers.

After your procedure, you may receive separate bills from an anesthesiologist, the hospital, and if applicable the radiology and pathology department. If your carrier has specific requirements regarding participation status, please contact your carrier.

Obtain Medical and Anesthesia Clearance

If you have medical problems such as diabetes, high blood pressure, heart disease, or lung disease you need to see your primary care physician and/or a specialist prior to surgery to obtain medical and anesthesia clearance. Also, the blood bank requires written permission from your primary care physician and/or a specialist prior to donating your own blood.

Preoperative Evaluation

Medical History

You will meet with a nurse practitioner who will review the Spine Surgery procedure, obtain your medical history and perform a physical examination. The nurse practitioner will ask you if you have any allergies and review all the medications you are currently taking. If you are taking Coumadin, an anticoagulant or “blood thinner” you will be instructed to stop this medicine several days before surgery. If you are taking NSAID (non-steroidal anti-inflammatory drug), you will be instructed to stop one week prior to surgery. Aspirin products should be stopped one week prior to surgery.

The nurse practitioner may identify a problem such as diabetes or high blood pressure that is not adequately controlled. Conditions such as these will require additional attention from your primary care physician before you can undergo surgery. The nurse practitioner will talk with you and your primary care physician to develop a special plan of action that will ensure you are in the best condition possible for surgery.

Autologous Blood Donation

Prior to surgery you may be asked to donate your own blood to be used during or after surgery. The best time to donate your blood is two to four weeks before surgery. Please contact the blood bank at 410-553-2942 to arrange donation. If you have diabetes, high blood pressure or heart disease, you will need written permission from your medical doctor in order to donate your own blood.

It is recommended that you start Ferrous Sulfate (Iron) in conjunction with your donation. The recommended dose of Ferrous Sulfate (Iron) is 325mg three times daily. Iron may cause stomach upset, constipation, or diarrhea. Take iron with meals, and if any symptoms of stomach upset appear, you can decrease the dose to once or twice daily.

Diagnostic Testing

During the preoperative visit, such testing as blood work, EKG, and Chest x-ray may be ordered and done at the hospital if permitted by your insurance. In some cases your primary care physician must do these tests so that they are covered by your insurance.

Special Breathing Instruction

The nurse practitioner will teach you how to use an incentive spirometer. This respiratory device will help you take full, deep breaths following surgery. If you are a smoker, you should stop smoking at least 48 hours before surgery.

Pain Management

The nurse practitioner will demonstrate how to use the Patient Controlled Analgesia (PCA) system. This push-button system releases pain medication as needed, through an intravenous (IV) line. It will remain in place during the first one to two days of your recovery.

Discharge Planning

When you meet with the nurse practitioner you will be asked questions about your home and the coach that you have selected to help you after you are discharged from the hospital. When most patients are discharged from the hospital, home care services are arranged. A few patients require a short stay in a rehabilitation facility following their hospital stay and before they are ready to go home. Rehabilitation centers specialize in physical and occupational therapy. The health care team will help you select the appropriate facility if it is recommended for you.

Advanced Directives

You will be given an opportunity to prepare “advanced directives” regarding your decision to accept or refuse life-sustaining medical treatment. If you choose to complete these documents, they will become part of your medical record for this procedure. This is a service offered to every patient admitted to Baltimore Washington Medical Center.

24 Hours before Surgery

If surgery is scheduled for noon or earlier, you will be instructed not to eat or drink anything after midnight before surgery. You may brush your teeth and gargle, but do not drink water.

If surgery is scheduled after noon, you may not eat any solid food that morning. You may drink no more than one cup (eight ounces) of clear liquids, such as water or apple juice, up to three hours before arriving at Baltimore Washington Medical Center. You may brush your teeth and gargle, but do not drink water.

Make sure to ask the nurse practitioner if you should take any of your usual medications the morning of surgery and bring all home medications with you (to ensure routine medications are ordered in the correct types and dosages during your hospital stay).

Preoperative Skin Preparation for Surgery

Decreasing the number of germs on the skin before surgery helps to decrease the risk of a wound infection after surgery. Showering with an antibacterial soap the evening before surgery and the morning of surgery helps to remove bacteria from the skin and reduce your chances of developing an infection. Please follow the instructions provided below.

Obtain a fresh bar or liquid antibacterial soap, such as Dial, to use for showering.

The evening before surgery:

- Wet your body in the shower.
- Wash your entire body with the soap, using a clean washcloth.
- Rinse your body thoroughly. This is important.
- Dry your body well with a clean towel.
- Put on clean clothes.

The morning of surgery:

- Repeat the steps as the night before, again dressing in clean clothes afterward.
- Do not apply any lotion, cream, or powder to the skin. Do not shave the area where the surgery will be performed.
- Wear loose, comfortable clothing to the hospital.

The Day of Surgery

What to leave at home the day of surgery:

Leave all valuables, including your wallet and purse, jewelry and rings at home. Women who are having surgery should not wear fingernail polish, toenail polish, makeup, or hairpins to the hospital. Acrylic nails do not need to be removed. If you wear contact lenses, please wear your glasses the day of surgery.

What to bring with you to the hospital:

If you wear a hearing aid, please wear it the day of surgery. Also, please bring any papers and/or forms the doctor may have given you. You should bring the pink blood bank card obtained when your blood was drawn and/or the green card (s) given to you when you donated your own blood.

Bring this booklet and your incentive spirometer with you. Also you may want to bring pajamas or a pair of loose bower type shorts and a robe with you to wear during therapy sessions.

Once You Have Arrived

Upon arriving to Baltimore Washington Medical Center, please check in at the front desk in the hospital's Main Lobby prior to reporting to the Ambulatory Surgical Department (located on the first level). A health care team member will make you comfortable and review the information obtained during the preoperative visit.

Your blood pressure, heart rate and temperature will be checked. An intravenous (IV) tube will be placed in your arm to give you fluid and medication. The IV will remain in place until you are drinking sufficient amounts of fluid. Once it is removed, all medications will be taken by mouth.

Before you enter the operating room, you will meet your anesthesiologist. He/she will ask some specific questions to determine which anesthesia is most appropriate for you.

Following surgery, you will be taken to the recovery room (known as the Post Anesthesia Care Unit or (PACU), until your blood pressure, heart rate and breathing are stable. Once you are alert and able to follow directions, you will be transferred to your room.

Post-Operative Care

Initial Post-Operative Period

A health care team member will check on you periodically and remind you to use your incentive spirometer to help keep your lungs clear. You will be given an antibiotic to prevent infection and a medication to prevent blood clots. The Patient Controlled Analgesia (PCA) will be in place and the nurse will review how to keep yourself comfortable with the pain medication prescribed. If your pain is not well controlled let the nurse know. If you donated your blood before surgery, you may receive the blood the evening of surgery.

You and your family should anticipate one to three days of hospitalization. Your work toward recovery begins the first day after surgery. It is a busy day, but members of your health care team will work with you toward the goal of walking comfortably again.

You will be encouraged to use pain medication so you can comfortably participate in all activities. You will continue using your incentive spirometer every two hours while you are awake in addition to being encouraged to breathe deeply.

If you have a Lumbar Fusion the physical therapist will help you out of bed and sit in the chair at your bedside twice during the day. You will take a short walk with the assistance of the physical therapist. An occupational therapist may be asked to show you how to use special assistive devices to help with bathing and dressing yourself, allowing you to become more independent.

Discharge Plans

Getting Ready to Go Home

Usually by the first or second day after surgery you should be able to walk 20 to 40 feet with minimal assistance. Most patients are discharged home at this point. Your ability to walk and care for yourself will continue to increase as you perform your daily activities. The nurse will review your discharge instructions and any medications to be taken at home. You will be given your doctor's phone number and asked to make a follow-up appointment.

When necessary, a case manager will visit with you and your family to identify your needs for discharge. She will discuss with you any necessary equipment or services that you will need at home.

Reasons to Call your Doctor

After you return home, call your doctor if you:

- Have severe pain uncontrolled by prescribed pain medication
- Have drainage from the incision
- Develop swelling in the lower leg or foot or experience tenderness in the calf
- Have a fever greater than 101 degrees
- If you develop chest pain or shortness of breath call 911 immediately
- It is always better to report problems early

Follow-up Care

To further your recovery process, an outpatient physical therapy and/or occupational therapy evaluation may be recommended. This promotes your general well being and focuses on improving your strength, endurance, posture, and teaches you about proper body mechanics. Especially when moving from one position to another to prepare you for resuming daily activities or returning to work.

Preventing Complications

Infection

Infection can be a very serious complication. There are several precautions that can be taken to prevent this.

Before Surgery: The risk of getting a surgical site infection is much higher if you have an infection going on anywhere else in your body. The nurse practitioner will question you about a history of dental infections (abscess, rotten teeth) as well as urinary infections at the time of your preoperative visit. If you have any evidence of an active infection, treatment of the infection is recommended before proceeding with surgery. If you are diabetic and your sugar is high this will increase your risk of infection. If your sugar is high, the nurse practitioner will refer you to your primary care physician to lower your blood sugar prior to surgery. Also, if you develop any cold or urinary symptoms between the time of your pre-operative visit and your surgery, you will be asked to contact your primary care physician to discuss treatment and possible delay of your surgery.

During Surgery: Your doctor will be performing your operation under sterile conditions in the operating room.

After Surgery: You will have a dry dressing applied to your incision after surgery. Usually this dressing will be changed for the first time on the second day after your surgery. Thereafter, your dressing should be changed on a daily basis, or more frequently if soiled. You will be asked to keep your incision clean and dry.

Blood Clots

After any major surgery, particularly orthopedic surgery, you are at risk for getting blood clots in your legs. If a piece of blood breaks free from your leg and travels to any other part of your body, serious complications, such as stroke, heart attack, pulmonary embolism, and even death, can occur. In order to prevent blood clots, the following strategies will be employed:

Sequential Compression Devices (SCDs): These devices will be placed on your legs after surgery in the recovery room. They will periodically inflate to squeeze your legs to help return blood from your legs. This will help prevent blood clots.

Compression Stockings: When you get out of bed and begin walking, the SCDs will be removed and compression stockings will be applied. The stockings are effective in preventing blood clots as well as controlling swelling that can occur after surgery.

Anesthesia & You

Who are anesthesiologists?

Board certified and board eligible physician anesthesiologists staff the Operating Room, Post Anesthesia Care Unit and the Intensive Care Unit. Each member of the service is an individual practitioner with privileges to practice at Baltimore Washington Medical Center. Our Anesthesia Department is a corporation and takes all types of insurance coverage. If you have any questions regarding this, please call the Severn Anesthesia Services at 410-760-0033.

What types of Anesthesia are available?

Decisions regarding your anesthesia are tailored to your personal needs. There are five main types:

- General anesthesia provides loss of consciousness.
- IV sedation provides light sleep.
- Regional anesthesia involves the injection of a local anesthetic to provide numbness, loss of pain or loss of sensation to a large region of the body. Regional anesthetic techniques include spinal blocks, epidural blocks and arm and leg blocks. Medications can be given to make you drowsy and blur your memory.
- Monitored anesthesia care consists of local anesthetic injections as well as constant monitoring by an anesthesiologist.
- Local anesthesia which provides numbness to a small area, may be injected by your surgeon.

Will I have any side effects?

Your anesthesiologist will discuss the risks and benefits associated with the different anesthetic options, as well as any complications or side effects that can occur with each type of anesthetic.

Nausea or vomiting may be related to anesthesia or the type of surgical procedure. Although, there is 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 you may not be totally pain free.

Exercise Your Right:

Put Your Health Care Decisions in Writing

It is a policy of BWMC to place patients' wishes and individual considerations at the foremost 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 patients' 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 a 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 medical center, 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.

If you would like more information or forms for completing a Living Will, appointment of a Health Care Agent or Health Care Instructions, you may write to:

Maryland Attorney Generals Office
Opinions Section
200 St. Paul Place
Baltimore, MD 21201

or

You may obtain copies of the forms at Baltimore Washington Medical Center.

Q & A

Lumbar Laminectomy

Frequently Asked Questions

Q: What is wrong with my back?

A: You have a “pinched nerve.” A herniated disc and/or arthritis in your back can cause this. The discs are shock absorbers between each vertebra, and are close to nerves, which originate in the spine and travel down the legs. If the disc is damaged, part of it may bulge or herniated or even burst free into the spinal canal, putting pressure on the nerve and causing leg pain, numbness or weakness. Bone spurs caused by arthritis can do the same thing.

Q: How can it be fixed?

A: The discs or bone spurs putting pressure on your nerve must be removed. This is done by making an incision in the middle of your lower back, moving the muscles covering your spine aside, and making a small window into your spinal canal. The nerve is exposed, moved aside and protected: the protruding disc or bone spur is then removed. This decompresses the nerve and in most cases leads to rapid improvement in the nerve pain, numbness and/or weakness. Sometimes the abnormality may be more extensive, extending over several disc segments and will require a longer incision.

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

A: The main reason for this operation is pain that is intolerable to the patient. Sometimes increasing nerve problems especially 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 without surgery. However, if the pain and disability become intolerable surgery is a way of treating the problem. Since the patient is the one affected by 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 orthopedists 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 the entire disc removed?

A: Only the ruptured part and any other obviously abnormal disc material is removed. This usually is no more than 10-15 percent of the entire disc.

Q: How long will I be in the hospital?

A: Laminectomy patients can usually be out of bed several hours after the operation. The majority of patients go home 12-24 hours after surgery.

Q: Will I need a transfusion?

A: Transfusions are rarely needed after this kind of surgery. We do not recommend preoperative donation of your own blood.

Q: What can I do after surgery?

A: You can get up and move around as soon as you feel like it, and may drive short distances when you feel able. 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 desk jobs which they can reach with a drive of 15 minutes or less whenever they feel comfortable, which is usually two or three weeks. You should not drive long distance (30 minutes or more) for about a month after surgery. If your job requires physical labor, you should consult your surgeon.

Q: What is the likelihood that I will be relieved of my pain?

A: Most patients get relieved of their leg pain. Some patients will continue to have noticeable back pain in some situations, and may require additional treatment.

Q: Could I be paralyzed?

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

Q: What other risks are there?

A: There are general risks with any type of surgery. They include, but are not limited to, the possibility of wound infection, uncontrollable bleeding, collections of blood clots in the wound or in the veins in the leg, abdominal problems, pulmonary embolism (a blood clot in the lungs), heart attack or stroke. 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: Will my back be normal after surgery?

A: Not even if you have excellent relief of pain, is a disc 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. 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. Try to walk a little farther each day, building up to a brisk three-mile walk each day by six weeks after surgery. Once your staples are removed you may swim, which is an excellent form of exercise for patients with back problems. By two or three weeks after surgery you may try more vigorous activities such as an exercise bike or Nordic track. Talk to your surgeon about aerobics and jogging. Physical activity is good for you, if done properly.

Q: What shouldn't I do after surgery?

A: You should talk to your surgeon for details. In general, you should limit heavy lifting, bending, twisting and high impact physical activities, including contact sports.

Q: Could this ever happen to me again?

A: Unfortunately, yes. As mentioned previously, only part of the disc is removed and there is no way to make the disc normal again, so recurrent herniations do occasionally occur. Also, adjacent discs may be abnormal, too, and could rupture in the future.

Q: Should I avoid vigorous physical activity?

A: No. Exercise is good for you. You should get some kind of vigorous, low-impact aerobic exercise at least three times a week. Walking either outside or on a treadmill, using an exercise bike or swimming are all examples of the type of exercise, which is appropriate for spine patients.

Q & A

Lumbar Fusion

Frequently Asked Questions

Q: what is wrong with my back?

A: You have one or more damaged discs and/ or areas of arthritis in your back. These produces pain, and may produce abnormal motion, or malalignment of your spine. The discs are shock absorbers between each vertebra, and are close to nerves, which originate in the spine and travel down the legs. If the disc is damaged, part of it may bulge or herniated or even burst free into the spinal canal, putting pressure on the nerve and causing leg pain, numbness or weakness.

Q: How can this be fixed?

A: Your condition requires both a nerve decompression (freeing the nerve from pressure) and a spinal fusion. In this case, both nerve decompression and spinal fusion would be done.

Q: What is a spinal fusion?

A: A fusion is a bony bridge between at least two other bones such as the vertebrae in your spine. The vertebrae are the blocks of bone, which make up the bony part of the spine, similar to a child's building blocks stacked on top of each other like 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, which are called bone graft. The bone graft may be obtained either from the patient's pelvis or from a born 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, which normally lies between the vertebrae, must be removed). In either case, the bone graft has to heal and unite to the adjacent bones before the fusion is solid. Spine surgeons often use plates or rods to protect the bone graft and stabilize the spine while the fusion heals.

Q: How is the operation performed?

A: An incision is made in the middle of the lower back. Muscles supporting the spine are pushing aside temporarily. The spinal nerve is exposed, moved aside and protected, and the ruptured disc or bone spur is removed to release the nerve. The fusion is then performed. The wound is closed and a dressing is applied. The operation usually takes at least three hours and may be longer depending on the complexity of the problem. Sometimes the spinal fusion is performed with an anterior approach. In this case the surgeon would make an incision in the lower abdomen, gently move the internal organs aside, and proceed with the surgery as described.

Q: Who is a candidate for lumbar fusion and when is it necessary?

A: When the back and nerve problems cannot be corrected in a more simple procedure and the pain persists at an unacceptable level it is necessary to do a fusion.

Q: Who performs this surgery?

A: Both orthopedists 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: How long will I be in hospital?

A: The hospital stay is generally one to three days.

Q: What can I do after surgery?

A: You should get up and move around frequently as soon as you feel like it. If you are feeling well enough, you may begin driving in two to three weeks with you back brace on.

Q: When can I return to work?

A: This should be discussed with your surgeon. Patients usually are allowed to 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 requiring strenuous physical activity after this operation due to the increased stress on the healing bone.

Q: What are my chances of being relieved of my pain?

A: Most patients get relief of their nerve symptoms and leg pain. Relief of back pain is less predictable.

Q: Could I be paralyzed?

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

Q: What other risks are involved?

A: There are risks with any types of surgery. They include, but are not limited to, the possibility of wound infection, uncontrollable bleeding, collections of blood clots in the wound or in the veins in the leg, abdominal problems, pulmonary embolism (a blood clot in the lungs), heart attack or stroke. 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: Will my back be normal after surgery?

A: No. Even if you have excellent relief of pain, the spine is not completely normal after a fusion. Stiffening one segment of the spine with the fusion may put additional strain on other areas. Other discs may have started to wear out and 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: What shouldn't I do after surgery?

A: You should avoid bending, lifting, and twisting for six to nine months. Even if screws, plates, or rods are used, six to twelve months are required for the fusion to heal completely. You must protect your spine during this time. Your surgeon will usually prescribe a brace for you to wear for part of the time. If you are a smoker, you should not smoke because it interferes with bone healing.

Q: Could this happen to me again?

A: Yes, a fusion may add stress to the levels above and below the fusion. If the fusion doesn't heal solidly, even with plates and screws, your symptoms may recur, and additional surgery may be needed.

Q: Should I avoid vigorous physical activity?

A: No. Exercise is good for you. You should get some kind 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 the types of exercise that is appropriate for spine patients.

Q & A

Cervical Laminectomy

Frequently Asked Questions

Q: What is wrong with my neck?

A: You have a “pinched nerve.” This can be caused by a ruptured disc or by bone spurs. Discs are shock absorbers between each vertebra, and are close to nerves, which travel down to the arms. If the discs are damaged, parts of it may bulge or herniate or even burst free into the spinal canal, putting pressure on the nerves and causing arm pain, numbness or weakness.

Q: What is required to fix the problem?

A: A small incision is made in the neck. Muscles supporting the spine are pushed aside temporarily, and a small “window” is made in the spinal canal. The spinal nerve is protected, and the ruptured part of the disc or the bone spur is removed. If bone spurs and arthritis are the cause of the problem, you may require a bigger incision.

Q: When is this operation necessary?

A: The major reason of spine surgery is pain, which is intolerable to the patient. Often none surgical measures can control the pain. However, if the pain persists at any unacceptable level, if you cannot function because of pain, or if weakness or other neurologic problems develop, then the surgery may be necessary to relieve the problem.

Q: Who performs this surgery?

A: Both orthopedists 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: How long will I be in the hospital?

A: Most patients stay 24 hours.

Q: Will I need a blood transfusion?

A: There is usually very little blood loss operation, and transfusions are almost never necessary.

Q: What can I do after surgery?

A: You should try to get up and move around as much as your symptoms allow. You may walk as much as you like. You may drive short distances.

Q: What shouldn't I do after surgery?

A: You should avoid heavy lifting (no more than 25 pounds), overhead lifting, frequent or repetitive neck movements and vigorous sports until instructed otherwise by your surgeon.

Q: When can I go back to work?

A: That depends on what kind of work you do and how far you have to drive. It can be as little as two weeks, but may be longer if your job involves manual labor or if you have to drive more than 30 minutes to get there.

Q: What are my chances of being relieved of my pain?

A: Most patients get relief of their nerve symptoms or arm pain. Neck and shoulder pain is less predictably relieved by disc surgery. Some patients may have some neck and shoulder aching after surgery: this percentage may be higher in patients who have a substantial amount of neck and shoulder pain before surgery. Other conditions such as fibromyalgia may produce continued pain even after successful disc surgery.

Q: Will my neck be normal after surgery?

A: Even if you have excellent relief of pain, the disc has still been damaged. However, most people can resume almost all of their normal activities after disc surgery. People who do heavy work generally take longer to recover and may not be able to do everything they could do before their injury.

Q: Could I be paralyzed?

A: The chances of neurological injury with spine surgery are very low, but not impossible. Injury to a nerve root with isolated numbness and/or weakness in the arm is possible. Fewer than one in 1,000 cases may result in paralysis, either complete or partial.

Q: What other risks are there?

A: There are risks with any types of surgery. They include, but are not limited to, the possibility of wound infection, uncontrollable bleeding, collections of blood clots in the wound or in the veins in the leg, abdominal problems, pulmonary embolism (a blood clot in the lungs), heart attack or stroke. 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: Is the entire disc removed?

A: Only the ruptured part and any other obviously abnormal disc material is removed. This usually is no more than 10-15 percent of the entire disc.

Q: Could this ever happen to me again?

A: Unfortunately, yes. As mentioned previously, only part of the disc is removed and there is no ways to make the disc normal again, so recurrent herniations do occasionally occur. Also, adjacent disc may be abnormal, too, and could rupture in the future.

Q: Should I avoid vigorous physical activity?

A: No. Exercise is good for you. You should get some kind 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 the types of exercise that is appropriate for spine patients.

Q & A

Cervical Fusion

Frequently Asked Questions

Q: What is wrong with my neck?

A: You have one or more damaged discs and/or areas of arthritis in your neck. This can be caused by a ruptured disc or bone spurs. Discs are shock absorbers between each vertebra, and close to nerves, which travel down to the arms. If the disc is damaged, part of it may bulge or herniate or even burst free into the spinal canal, putting pressure on the nerve and causing arm pain, numbness or weakness. Loss of the normal “shock absorber” function, or arthritis around the damaged disc, can also produce mechanical pain around the neck or shoulders with neck movement or awkward positions.

Q: How can this be fixed?

A: The best approach to your problem is to remove the damaged disc and bone spurs from the front, or anterior part of your neck, and to perform a fusion between the adjacent vertebral bodies. Certain conditions however, require the surgeon to perform the fusion using a posterior approach instead.

Q: What is a spinal fusion?

A: A fusion is a bony bridge between at least two other bones such as the vertebrae in your spine. The vertebrae are the blocks of bone, which make up the bony part of the spine, similar to a child’s building blocks stacked on top of each other like 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, which are called bone graft. The bone graft may be obtained either from the patient’s pelvis or 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, which normally lies between the vertebrae, must be removed). In either case, the bone graft has to heal and unite to the adjacent bones before the fusion is solid. Spine surgeons often use plates or rods to protect the bone graft and stabilize the spine while the fusion heals.

Q: How is this operation performed?

A: An incision is made over the front of the neck. The windpipe, esophagus and other tissues are temporarily pushed aside and the abnormal disc or discs are removed

completely. If your own bone is to be used for the fusion, another small incision is made over the front of the pelvis and one or more bone grafts are removed to replace the disc or discs. In most cases this bone will heal or fuse to the vertebrae and eliminate movement between them. For fusions involving more than one level, or in the case of unusual spinal instability, internal plates and screws may be used improve stability and conditions for bone healing.

Q: When is this operation necessary?

A: The major reason of spine surgery is pain, which is intolerable to the patient. Often none surgical measures can control the pain. However, if the pain persists at any unacceptable level, if you cannot function because of pain, or if weakness or other neurologic problems develop, then the surgery may be necessary to relieve the problem.

Q: Who performs this surgery?

A: Both orthopedists 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: How long will I be in the hospital?

A: Most patients stay 24 hours.

Q: Will I need a blood transfusion?

A: There is usually very little blood loss operation, and transfusions are almost never necessary.

Q: What can I do after surgery?

A: You should try to walk and take care of yourself as much as you are able to. You should try to walk or exercise day. You may perform other low-impact activities not requiring lifting or neck movement as allowed by your brace. If a brace is not required, you may drive when allowed by your surgeon.

Q: What shouldn't I do after surgery?

A: You should avoid lifting heavy objects, and avoid all overhead lifting. Twisting, repetitive bending, and tilting your head back to look overhead are also stressful to your neck. If you are a smoker, you definitely should not smoke until your fusion is completely solid. Smoking interferes with bone healing.

Q: Will I need to wear a neck brace?

A: Most patients wear some type of neck brace after this surgery. The type of brace and length of time you need to wear the brace will be determined by your surgeon.

Q: When can I go back to work?

A: That depends on the type of work you do. If a brace is required, you will not be able to drive until you no longer need the brace. For sedentary jobs, work may resume when you feel comfortable and can get to work. For jobs, which require more strenuous physical exertion, a longer healing time may be required. Your surgeon will discuss this with you individually.

Q: What are the chances of being relieved of the pain?

A: Most patients obtain relief from their arm pain. Relief of neck pain is less predictable.

Q: Will my neck be normal after surgery?

A: No. While most patients have excellent recovery of arm pain after surgery, your neck will not be completely normal. While most patients with one or two level fusions will not notice significant loss of motion, the stiffened segment of your spine does put additional stresses on adjacent discs, which may already be abnormal to some extent. These other discs may cause symptoms. Although most patients can resume most of their normal activities after healing, you should take care of your neck. Your surgeon can discuss this with you in detail.

Q: Could I be paralyzed?

A: The chances of neurological injury with spine surgery are very low, but not impossible. Injury to a nerve root with isolated numbness and/or weakness in the arm is possible. Fewer than one in 1,000 cases may result in paralysis, either complete or partial.

Q: What other risks are there?

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

Most patients will have discomfort swallowing for a few days after surgery. Occasionally, swallowing difficulties may be more significant and last for longer periods of time. Some patients may be hoarse after anterior cervical spine surgery. Usually this

goes away within a few days or weeks. Rarely the hoarseness may be persistent for longer period even be permanent.

Q: Is the entire disc removed?

A: Yes

Q: Could this ever happen to me again?

A: Unfortunately, yes. Similar conditions, which have led to the disc damage being treated now, may have already started in one or more of the other discs, in your neck. A small percentage of fusions do not heal normally, which may require additional surgery. The chance of this happening increases if fusion is attempted at more than one level, which is why spine plates are sometimes used for multilevel fusions. Over 90 percent of the patients do well. Less than 10 percent have some recurring problems.

Q: Should I avoid vigorous physical activity?

A: No. Exercise is good for you. You should get some kind 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 the types of exercise that is appropriate for spine patients.