

A PATIENT'S GUIDE TO CERVICAL SPINE SURGERY



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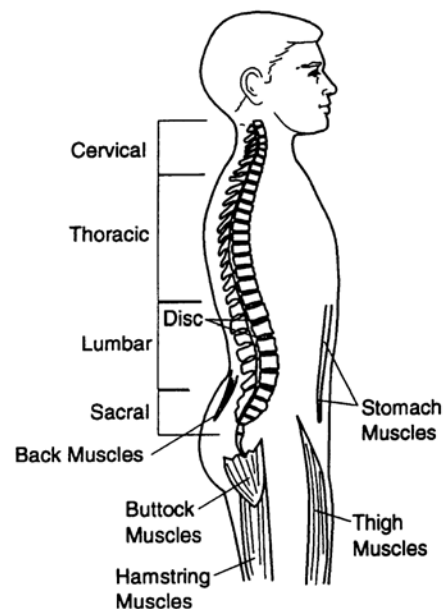
You may be reading this guide because you or someone you love has been told that they will have cervical spine surgery. You are not alone, and will require a dedicated medical team for help.



THE SPINAL COLUMN

Your spinal column consists of 33 vertebra which provide support to your body and protection of the spinal cord. The vertebra are grouped into different levels: Cervical (7 vertebra), Thoracic (12 vertebra), Lumbar (5 vertebra), Sacrum (5 fused vertebra) and Coccyx (4 fused vertebra). Each cervical, thoracic and lumbar vertebral body is separated by a disc, which cushions the vertebrae. Your neck moves with the help of ligaments, muscles and nerves all along the spinal column.

Over 90% of people have had back or neck pain sometime in their life. Most of them improve after a few weeks of rest, stretching and medications. Some may require additional treatment such as physical therapy or pain management. For those who have tried those treatments and continue to have weakness or pain, surgery may be an option.



Most neck surgeries are done to preserve neurological function of the cervical spine. The cervical spine protects some of the nerves responsible for breathing. They also protect nerves that travel to the neck, shoulder, arms and fingers. These patients may have problems with:

- Severe and constant pain that interferes with normal life activities and/or work

- Central disk herniations that press on the spinal cord causing loss of sensation, weakness, numbness, tingling, urinary or bowel leaking or decreased sexual function
- Weakness to their hands or fingers may cause them to drop things or they may not be able to get a good grasp of smaller objects

DIAGNOSTIC TESTS

There are many different tests used to diagnose the spinal condition, locate the spinal level of injury and evaluate your spine before and after surgery. Depending on your spine condition, you may need:

- Computed Tomography (CT): A CT scan provides a two-dimensional map of tissues and organs in the body using an x-ray beam. If you are allergic to contrast dye, have kidney problems or are diabetic, you should make your surgeon aware of this.
- CT Myelogram: Lumbar puncture performed to inject dye into the spine in order to look for partial or complete obstruction of cerebral spinal fluid (CSF) flow in the spine.
- Magnetic Resonance Imaging (MRI): The MRI creates a detailed picture of the spine and surrounding structures using a powerful magnetic field. If you have a pacemaker or metal implanted in your body, you should make your surgeon aware of this.
- Somatosensory Evoked Responses (SSEPs): Multiple electrodes placed on the scalp to examine electrical activity in the spine.

Types of Surgical Procedures

Based on your diagnostic tests and physical exam, your surgeon has already discussed what choices you have to treat your problem. This may include returning to some of the previous treatments such as physical therapy. Your surgeon may also have discussed having surgery to treat your problem. Depending on the location of the problem you may have:

- **Discectomy:** Removal of part or all the material inside the intervertebral disc; may be done with or without a laminectomy. The surgeon can decide to do this type of procedure from the anterior (front) of the neck or from the posterior (back) of the neck.
 - Anterior approach:** The total disc is removed and the surgeon places permanent instrumentation to support the neck.

--Posterior approach: Only the broken disk pieces are removed. The surgeon may or may not place instrumentation depending on the number of discs involved.

- **Instrumentation:** Titanium-based rods, screws and plates used to stabilize the spine following some surgical procedures.
- **Laminectomy/Laminotomy:** Complete (laminectomy) or partial (laminotomy) removal of a back portion of the vertebra which covers the disc and spinal cord. This allows the surgeon a better view of the disc involvement and helps with removal of the disc.
- **Spinal Fusion:** Two or more vertebra are immobilized by placing a wedge-shaped piece of bone or bone chips between the vertebrae. This permanently immobilizes and stabilizes a weakened area of the spinal column. May be done anteriorly with a discectomy.
- **Foraminotomy:** Spinal nerves exit the spinal cord through intervertebral foramen. The foramen can be enlarged to allow more space for the spinal nerve to exit.

DAY OF SURGERY

On the day of surgery, you should not eat or drink after midnight. You may have a few sips of water to take any of your regular medications unless you have been instructed otherwise.

You should plan on arriving to the hospital **two hours** before your surgery is scheduled to begin. After you arrive at the hospital, you will be asked to check in to the admitting department. From there, you will be transported to the ambulatory surgery unit (ASU). The ASU will ensure that all paperwork, laboratory work and x-ray imaging has been completed prior to your surgery. Approximately 30 minutes prior to your surgery, a member of the anesthesia team will meet you in the pre-operative waiting area to talk to you about your health and to insert intravenous (IV) catheters.

Your family members will be asked to wait in the designated waiting area. A volunteer and monitor will update them throughout the waiting period.

AFTER SURGERY

FREQUENTLY ASKED QUESTIONS

Q: Will I need to continue seeing the doctor who performed my surgery?

A: You will be asked to come back to your surgeon's office 6-weeks after your surgery

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Q: How long does the surgery take?

A: Two to three hours.

Q: Is it normal to feel pain for weeks after the procedure?

A: .

Q: What precautions should be followed after surgery?

A: During the first six to eight weeks after surgery you should avoid lifting, bending, and twisting movements.

GLOSSARY OF TERMS

Ambulatory Surgery Unit: Area of the hospital dedicated to preparing patients for surgical procedures.

Anesthesia Team: Health care professionals who specialize in pain management and putting patients to sleep during procedures and operations.

Diagnostic Test: Information gathered to determine the cause of a problem.

Neurosurgeon: A medical doctor who specializes in operating on structures of the brain and spine.

Recurrent: An activity that continues to happen, or disappears and comes back again.

Side Effects: Any unwanted result of taking a medication, such as rashes, fatigue, or headache.

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