ATLANTA
SPINE
INSTITUTE

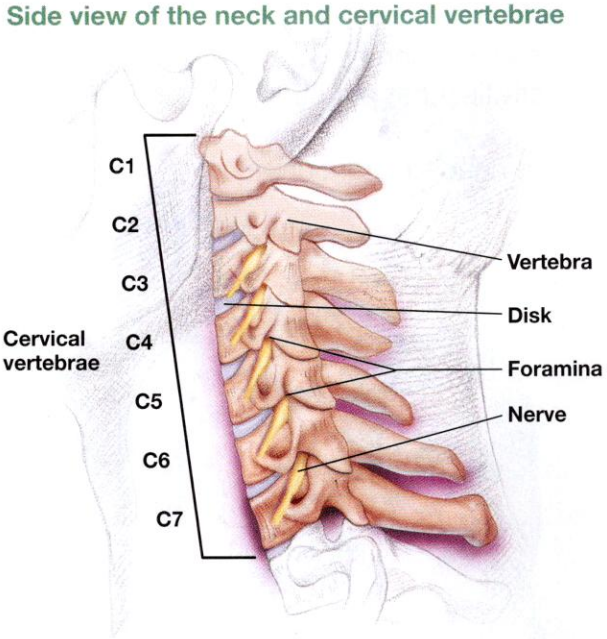
PCDF

INFO

Understanding the **Cervical Spine**

Your neck needs to be strong to hold up your head, which may weigh 10 pounds or more. But injury, poor posture, wear and tear, and diseases such as arthritis can damage the structures of your cervical spine. Or you may have a family tendency to develop disk problems. Pain and weakness in your neck and arms may result.

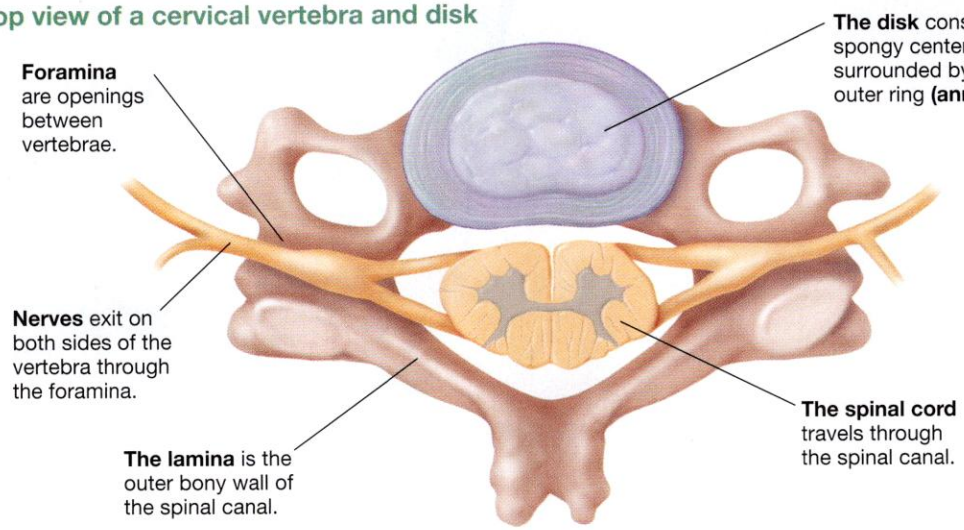
Side view of the neck and cervical vertebrae



A Healthy Cervical Spine

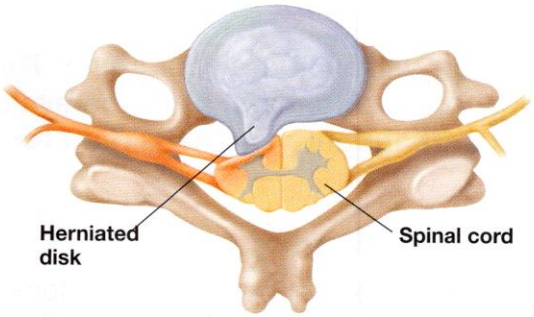
The upper spine is a flexible column made up of the **cervical vertebrae.** These seven bones are separated by spongy, shock-absorbing **disks.** The spinal cord runs through a large central opening **(spinal canal)** formed by the vertebrae. Nerves branching from the spinal cord travel to your arms and other parts of your body through small openings **(foramina)** between the vertebrae. As you grow older, it's normal for your disks to wear out and harden. As a result, your neck may not be as flexible as it once was.

Top view of a cervical vertebra and disk

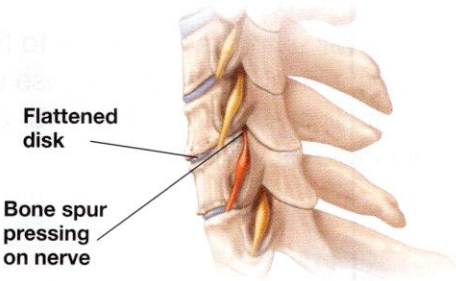


Your Problem Spine

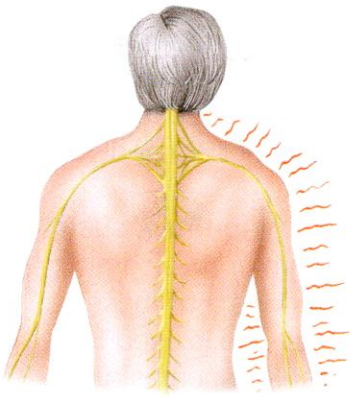
One of the most common cervical spine problems is a damaged disk. A disk may be injured and bulge outward **(herniation)**. The bulge may press on a nerve. Or it may wear out gradually **(degeneration).** A worn-out disk may become so flat that the vertebrae above and below it slip back and forth or almost touch. As disks wear out, abnormal bone growths **(bone spurs)** can form on the vertebrae and in the foramina, causing narrowing **(stenosis).**



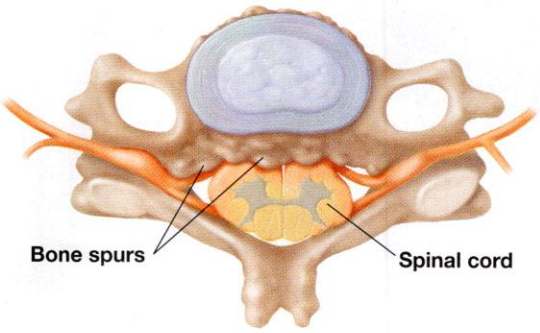
With a herniated disk, the annulus tears or the nucleus pushes through the annulus. The herniated portion of the disk may press on a nearby nerve. This may cause neck or arm pain, or weakness in the arm.



In degenerative disk disease, the disks flatten over time. The surrounding vertebrae begin to touch, and the nerves may be pinched. Bone spurs may also form, further irritating the nerves.



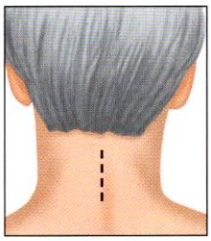
Arm pain and weakness may be caused by pressure on the nerves traveling from the cervical spine down the arm.



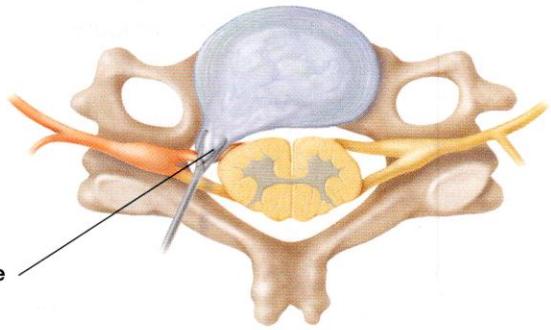
In stenosis, bone spurs grow into the foramina and spinal canal, narrowing the openings. The nerves and spinal cord may be compressed, resulting in pain, weakness, numbness, and loss of coordination.

Through the Back: Posterior Approach

Your surgeon will make an incision (about 2 to 4 inches long) in the middle of the back of your neck. Then he or she may remove bone to reach the problem area. The surgeon then removes the damaged portion of the disk.



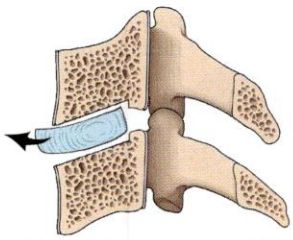
Possible incision site



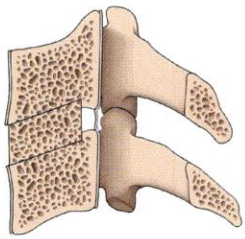
Part or all of the problem disk is removed from the back.

Adding Stability: Fusion

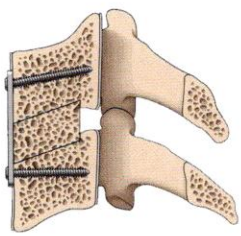
After removing a disk from the front, your surgeon may fuse the vertebrae above and below it. This limits movement, helping to relieve pressure and pain. First, the surgeon enlarges the space between the vertebrae. The surgeon then "plugs" the space with a cylinder- or wedge-shaped bone graft. Metal plates may be added over the front of the vertebrae and secured with screws. Or, a cage (a plastic or metal "basket" packed with bone graft) may be inserted where the disk was removed. These supports remain in the body.



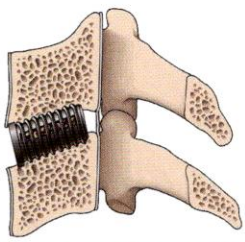
The disk is removed from between the vertebrae.



A bone graft is inserted to plug the opening.



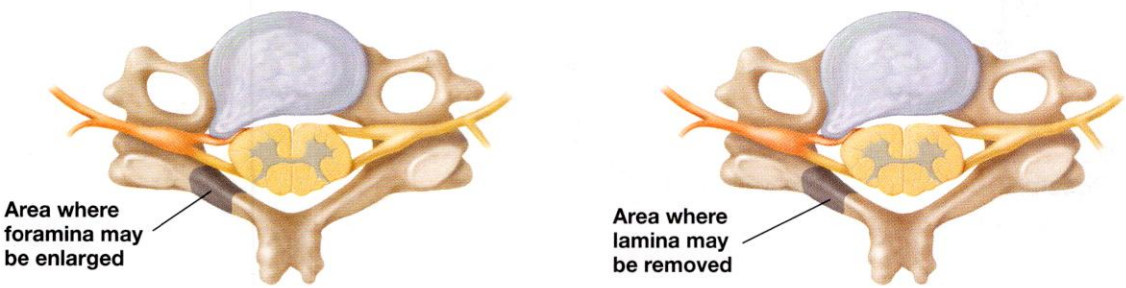
A metal plate may be used to keep the vertebrae stable.



A cage may be used to support the vertebrae.

Removing Bone

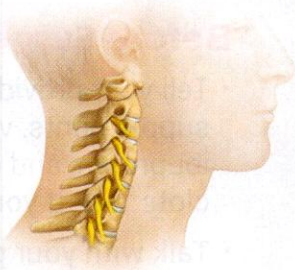
To reach the disk from the back, your surgeon may enlarge the foramina or remove a portion of the lamina. To help relieve pressure on the nerves or spinal cord, bone spurs may also be removed.



The location and amount of bone removed depend on the type of problem you have.

Cervical Fusion

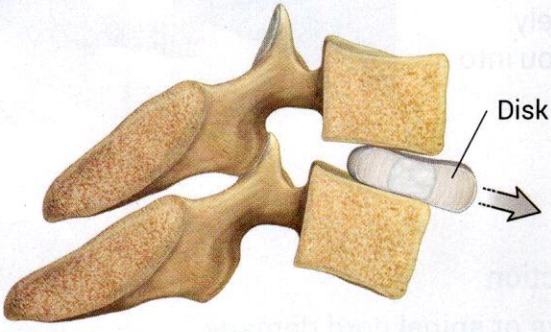
To help ease neck and arm pain, **2 or more vertebrae in the neck are fused. This may be done through an incision in the front (anterior) of the neck or the back (posterior) of the neck.**



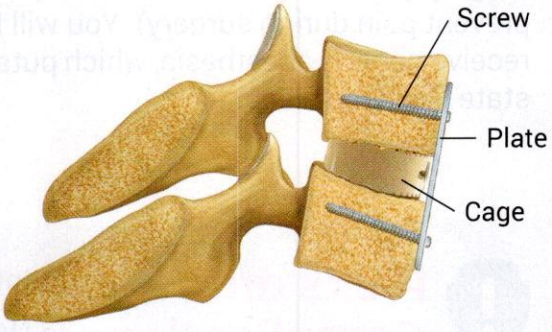
Cervical vertebrae

The Fusion Procedure

- **For an anterior fusion.** An incision is made on the front of the neck to reach the spine. Most of the disk is removed from between the vertebrae. Then, bone graft is placed. It is often put inside a device called a cage. The cage is placed between the vertebrae.
- **For a posterior fusion.** An incision is made on the back of the neck. Bone graft is then placed on the back of the spine between the transverse processes.
- In either case, a metal plate or rod and screws may be added. These hold the spine steady as the bone graft fuses with the vertebrae. The supports typically stay in place and are not removed.
- The incision is closed with sutures, staples, or surgical glue.



The disk is removed from between the vertebrae.



Bone graft inside a cage is placed in the empty space. A metal plate and screws may be used to give extra support.

ATLANTA SPINE INSTITUTE ASI
ORTHOPAEDIC SURGERY & SPINE CARE

PLAS T. JAMES, M.D.
Diplomate of the American Board of Orthopaedic Surgeons

NAME_____ DATE_____

INFORMED CONSENT FOR POSTERIOR CERVICAL DISKECTOMY WITH FUSION

PLEASE DO NOT SIGN THIS FORM UNTIL YOU HAVE READ IT AND FULLY UNDERSTAND ITS CONTENTS.

The following has been explained to me in general terms and I understand that :

1. The diagnosis requiring this procedure is painful ruptured disc in my neck and/or degenerative disc disease.
2. The nature of this procedure is to operate on my neck to remove the disc and put in bone graft and possibly plate and screws to fuse (make stiff) the vertebra.
3. The purpose of this procedure is to relieve neck and shoulder pain.
4. The likelihood of success of the above procedure is good.
5. Practical alternatives to this procedure include: Repeat epidural injections, bone graft without plate, cervical brace, physical therapy, and living with the pain.
6. If I choose not to have the above procedure, my prognosis (future medical condition) is guarded.
7. **RISKS OF THIS PROCEDURE:**

As a result of this procedure being performed, there may be material risks of: infection, allergic reactions, disfiguring scar, severe loss of blood, loss or loss of function of any limb or organ, paralysis, paraplegia or quadriplegia, brain damage, cardiac arrest or death.

In addition to these material risks, there may be other possible risks involved in this procedure including but not limited to bone not healing or pops out, infection, nerve injury or spinal cord injury, vocal cord injury, or the plate may have to be removed.

I understand that the physician, medical personnel, and other assistants will rely on statements about the patient, the patient's medical history, and other information when determining whether to perform the procedure and/or the course of treatment.

I understand that the practice of medicine is not an exact science and that NO GUARANTEES OR ASSURANCES HAVE BEEN MADE TO ME concerning the results of this procedure.

I understand that during the course of the procedure described above, it may be necessary or appropriate to perform additional procedures which are unforeseen or not known to be needed at the time this consent was given. I consent to and authorize the persons described herein to make the decisions concerning such procedures and whether they are deemed necessary or appropriate to be performed.

I also consent to diagnostic studies, tests, anesthesia, x-ray examinations, and any other treatment relating to the diagnosis or procedure described herein.

I also consent that any tissues, specimens, organs, or limbs removed from my body in the course of any procedure may be tested or retained for scientific or teaching purposes and then disposed of within the discretion of the physician, facility, or other health care provider.

BY SIGNING THIS FORM, I ACKNOWLEDGE THAT I HAVE READ OR HAD THIS FORM READ AND/OR EXPLAINED TO ME AND I FULLY UNDERSTAND ITS CONTENTS; I HAVE BEEN GIVEN AMPLE OPPORTUNITY TO ASK QUESTIONS AND THAT ANY QUESTIONS HAVE BEEN ANSWERED SATISFACTORILY. ALL BLANKS OR STATEMENTS REQUIRING COMPLETION WERE FILLED IN AND ALL STATEMENTS I DO NOT APPROVE OF WERE STRICKEN BEFORE I SIGNED THIS FORM. I ALSO HAVE RECEIVED ADDITIONAL INFORMATION INCLUDING BUT NOT LIMITED TO THE MATERIALS LISTED BELOW, RELATED TO THE PROCEDURES DESCRIBED HEREIN.
I AM SIGNING THIS FORM ON MY OWN FREE WILL AND UNDER NO DURESS.

I hereby request and consent to the performance of the procedures described or referred to herein by PLAS T. JAMES and any other physicians and medical personnel who may be involved in the course of my treatment.

_____	_____
Witness	Person giving consent
_____	_____
Date	Relationship to patient, if not the patient

Patient is unable to sign because: _____

Additional materials used, if any, during the informed consent process for this procedure include:

_____

_____

Person giving consent: _____

_____

ATLANTA SPINE INSTITUTE

PLAS T. JAMES, M.D.
DIPLOMATE OF THE AMERICAN BOARD OF ORTHOPAEDIC SURGEONS

CERVICAL POST-OPERATIVE PROTOCOL

1. Do not smoke or chew tobacco products, which could greatly decrease your chance of a successful surgery and/or fusion.
2. **Anterior Fusion**-Keep cervical (neck) collar off as much as possible during the day. If patient's neck becomes fatigued or head becomes heavy, collar should be placed back on. Patient should work on right and left (side-to-side) rotation immediately after surgery. (It is okay to nod head, however, NO up and down FORCED motion until six weeks postoperative).

   Posterior Fusion- Keep cervical (neck) collar on until your first post op visit. NO side to side, or up and down motion until post op visit.
3. At bedtime, wear neck collar or use ***Contoured Tempurpedic*** brand pillow.
4. No lifting heavier than a gallon of milk or 10 pounds (keep object close to body).
5. Aquacel dressing should remain on until first postop visit. The Aquacel dressing can be worn without issue in the shower. If the bandage becomes saturated or comes off, please contact the office for further instruction.
6. **DO NOT BECOME CONSTIPATED**!! Use stool softeners, prune juice, etc.
7. No driving or flying until after first post-op visit at approximately 10-14 days. DO NOT DRIVE with neck collar on. Must be able to fully rotate neck from left to right before driving.
8. Women who use a hairdresser must lean forward over sink to have their hair washed.

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9. Patient may experience difficulty swallowing and posterior neck/shoulder blade soreness for a few days in the postoperative period. You may apply ice/cold pack on surgical site or shoulder blades 20 minutes at a time. NO HEAT.
10. Wear compression stockings until first post-op visit.
11. Avoid overhead or over-the-shoulder height work.
12. **MEDICATIONS**: Continue all antibiotics until all have been taken per the Pharmacy. For the first three (3) months, do not take anti-inflammatory medication such as Ibuprofen, Advil, Aleve, Lodine, Voltaren, Celebrex, Aspirin, and Zipsor (diclofenac) as it decreases bone growth (SEE LIST).

    *Post-op medication, i.e., narcotics, cannot be phoned into the pharmacy. The prescription MUST be picked up in person or mailed.
13. Make sure that if you use a computer that the screen is at eye level. Must have elbows supported by chair armrest. Also, must have palm pad to rest hand on while typing.
14. Call Doctor if temperature rises greater than 101.5 or chills.
15. Notify Doctor if wound(s) develops purulence (pus), excessive redness, clear drainage, foul odor, or severe postsurgical headaches.
16. CALL FOR FOLLOW-UP APPOINTMENT IMMEDIATELY AFTER DISCHARGE FROM HOSPITAL TO BE SCHEDULED APPROXIMATELY 14 DAYS POSTOP.

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MEDICATIONS TO AVOID 7 DAYS PRIOR TO SURGERY

DO NOT TAKE: CBD PRODUCTS, VITAMIN E, ASPIRIN, OR WEIGHT LOSS PRODUCTS, AS THESE MAY PROLONG BLEEDING TIME.

If you are on COUMADIN, please notify us IMMEDIATELY. You must contact the physician who prescribed this medication. He/She will need to make the decision if you are able to discontinue this medication for surgery. They will then provide our office with written medical clearance.

HERBS TO AVOID:

ECHINACBA	ST. JOHN'S WORT	GINKGO BILOBA
MELATONIN	GRAPE SEED OIL	GARLIC TABLETS
FISH OIL	TUMERIC	GINGER
CAYENNE PEPPER	CASSIA CINNAMON	DONG QUAI
GRAPE LEAF EXTRACT	FEVER FEW	BROMELAIN

ASPIRIN PRODUCTS TO AVOID:

ALKA SELTZER	ANACIN	ASCRIPTIN	BC TABLETS
BUFFERIN	CHERACOL	COPE	CORICIDIN
DARVON COMPOUND	BAYER	FIORINAL	DRISTAN
SOMA COMPOUND	ECOTRIN	EMPIRIN	EXCEDRIN
GOODY'S POWDER	SINE-AID	SINE-OFF	PERCODAN
STENDIN	VANQUISH	TRIAMINICIN	MIDOL

IBUPROFEN PRODUCTS TO AVOID:

ADVIL	MEDIPREN	NUPRIN	ALEVE	RUFFEN	MOTRIN

ANTI-ARTHRITIC PRODUCTS TO AVOID:

VOLTAREN (Diclofenac)	CLINORIL	FELDENE	INDOCIN
NAPROSYN	TOLECTIN	ANAPROX	ORUDIS
DOLOBID	RELAFEN	ANSAID	DAYPRO
BUAZOLIDIN	ORUVAIL	DISCALID	SALFLEX
MONO-GESIC	LODINE (Etodolac)	CATAFLAM	TORODOL
NAPRELAN	CELEBREX	DICLOFENAC	ZIPSOR
MOBIC (Meloxicam)	ARTHROTEC	CHONDROITIN	GLUCOSAMINE

If you have any questions or concerns about these or any other medications you are presently taking, please call 404-252-2422.

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