

## Cervical Hematoma's & Post-Operative Spine Complications

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## Cervical Spine Post ACDF Surgery Hematoma

Donald S. Corenman, M.D., D.C.  
[www.neckandback.com](http://www.neckandback.com)



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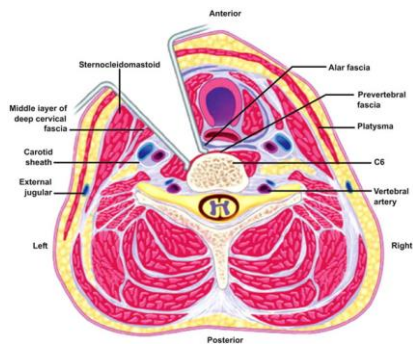
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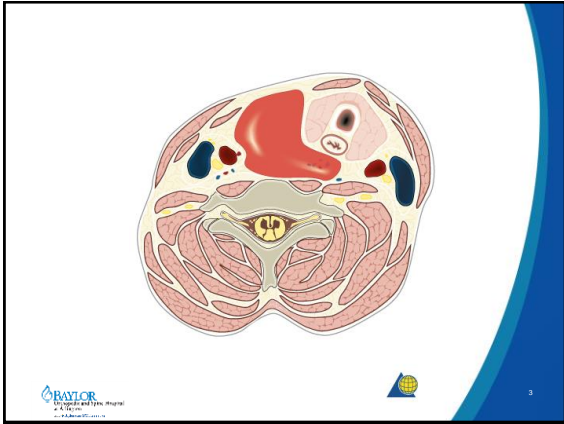
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# BOSHA ORTHOPEDIC NURSING SUMMIT 2018

JUNE 9, 2018 • MARRIOTT COURTYARD ARLINGTON SOUTH • ARLINGTON, TEXAS



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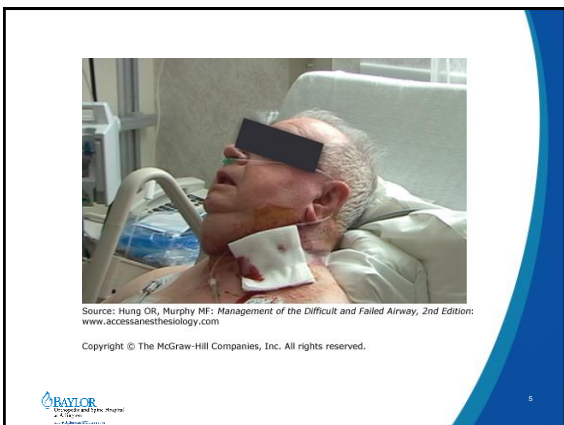
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## Hematoma Risk Factors

- Revision
- Pre-Op Blood Thinner
- Multi-levels

BAYLOR  
ORTHOPEDIC AND SPINE INSTITUTE  
www.baylorortho.com

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## Anterior Cervical Spine

- Typically in first 24 hours; it is an **emergency/ life-threatening**
- Symptoms:
  - Difficulty swallowing
  - Difficulty breathing
  - Difficulty talking
  - Swollen neck/trachea

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## Treatment

- Call surgeon IMMEDIATELY
- Take collar OFF
- Evaluate Neck
  - Will be swollen and 'full'
- Emergent trip to the OR
- Open incision at bed-side

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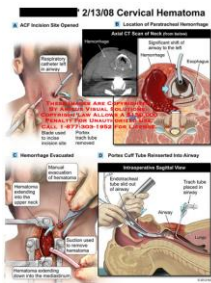
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- If severe, you will not be able to intubate the patient
- CT only used in mild cases.



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## Post-Op Infection

- 11 days post-op



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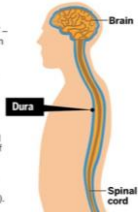
## Spinal Fluid Leak

- Headache
- Clear Fluid


– When head is up

**KERR'S AFFLICTION**  
Cerebral spinal fluid – or CSF – cushions and protects the brain and spinal cord. The fluid is held in place by a sac-like covering called the meninges. The thickest outer layer of the meninges is the dura. Normally, the brain floats in this fluid.

**A CSF leak is when a hole or tear in the dura allows the fluid to leak out.** When the volume of CSF is lowered, the brain will sag inside the skull, causing headaches that worsen when the patient is in an upright position (sitting or standing up).



Source: Cedars-Sinai, Cleveland Clinic



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## Upright headache? Think CSF leak!

**LEAK FACT**  
About 10% of people who have an orthopedic procedure involving the spine or skull have a CSF leak. The most common cause of a CSF leak is a hole or tear in the dura, the sac-like covering that holds the brain and spinal cord in place. CSF leaks can cause a variety of symptoms, including headaches, neck pain, and clear fluid drainage from the wound site.

**HEADACHE**  
Headaches are the most common symptom of a CSF leak. They are typically worse when the patient is upright and better when lying down. The pain is usually described as a dull, aching pain that starts in the back of the head and spreads to the front of the head.

**NECK AND BACK PAIN**  
Neck and back pain are also common symptoms of a CSF leak. The pain is usually worse when the patient is upright and better when lying down. The pain is usually described as a dull, aching pain that starts in the neck or back and spreads to the rest of the body.


**NEUROLOGICAL SYMPTOMS**  
Neurological symptoms such as dizziness, nausea, and vomiting are also common symptoms of a CSF leak. These symptoms are usually worse when the patient is upright and better when lying down.

**DIAGNOSIS**  
A CSF leak is usually diagnosed based on the patient's symptoms and a physical examination. A CT scan or MRI can also be used to confirm the diagnosis.

**TREATMENT**  
Treatment for a CSF leak depends on the severity of the symptoms. In some cases, the leak can be treated with a simple procedure called a dural patch. In other cases, surgery may be required to repair the leak.

**PREVENTION**  
There are several things you can do to help prevent a CSF leak. These include avoiding heavy lifting, avoiding strenuous activities, and avoiding activities that involve bending over or straining the neck or back.

**Find out more about cerebrospinal fluid leaks**  
Visit [www.csfleak.com](http://www.csfleak.com) for more information.




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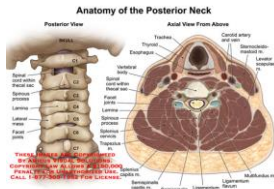
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## Posterior Cervical/ Thoracic

- Paralysis
- Physical Exam



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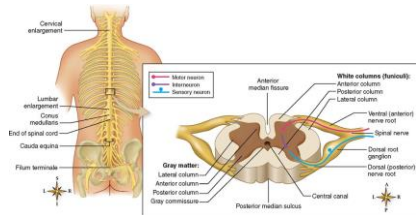
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## Lumbar

- Cauda Equina
  - Leg pain
  - Weakness
  - Neurological Symptoms
- Physical Exam



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## Pain

- New/ OCD
  - Radiopathy vs Back/Neck
  - Numbness/ Weakness
  - Treatment Scan

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## Weakness

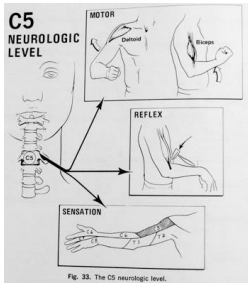


Fig. 33. The C5 neurologic level.

- Exam
- Foot Drop
- C5
  - Shoulder Abduction
  - Biceps

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## Questions?

## Thank You!!!

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