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# John Doe

**Day of Injury: 10/07/2016 1<sup>st</sup> motor vehicle accident**  
**12/13/2018 2<sup>nd</sup> motor vehicle accident**

Type of Injury: Motor Vehicle Accident



**John Doe's Vehicle**  
**DOI: 10/07/2016**

Sample Deposition  
Presentation



**John Doe's Vehicle  
DOI: 10/07/2016**

Sample Deposition  
Presentation



**John Doe's Vehicle**  
**DOI: 10/07/2016**

Sample Deposition  
Presentation



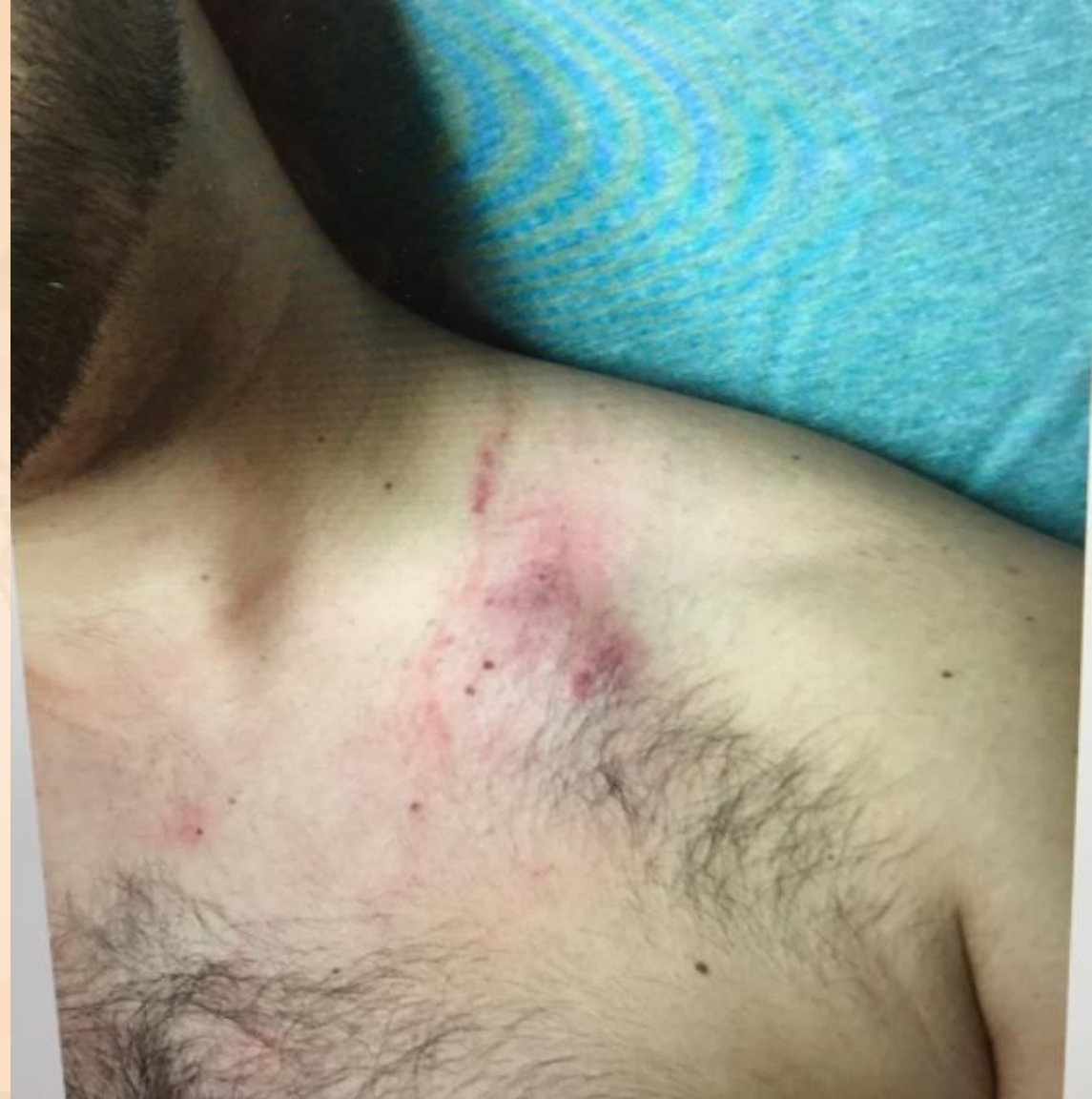
**Vehicle that hit John Doe  
DOI: 10/07/2016**



DOI: 10/07/2016

Clinical image of John Doe's chest, showing bruise on  
left chest wall

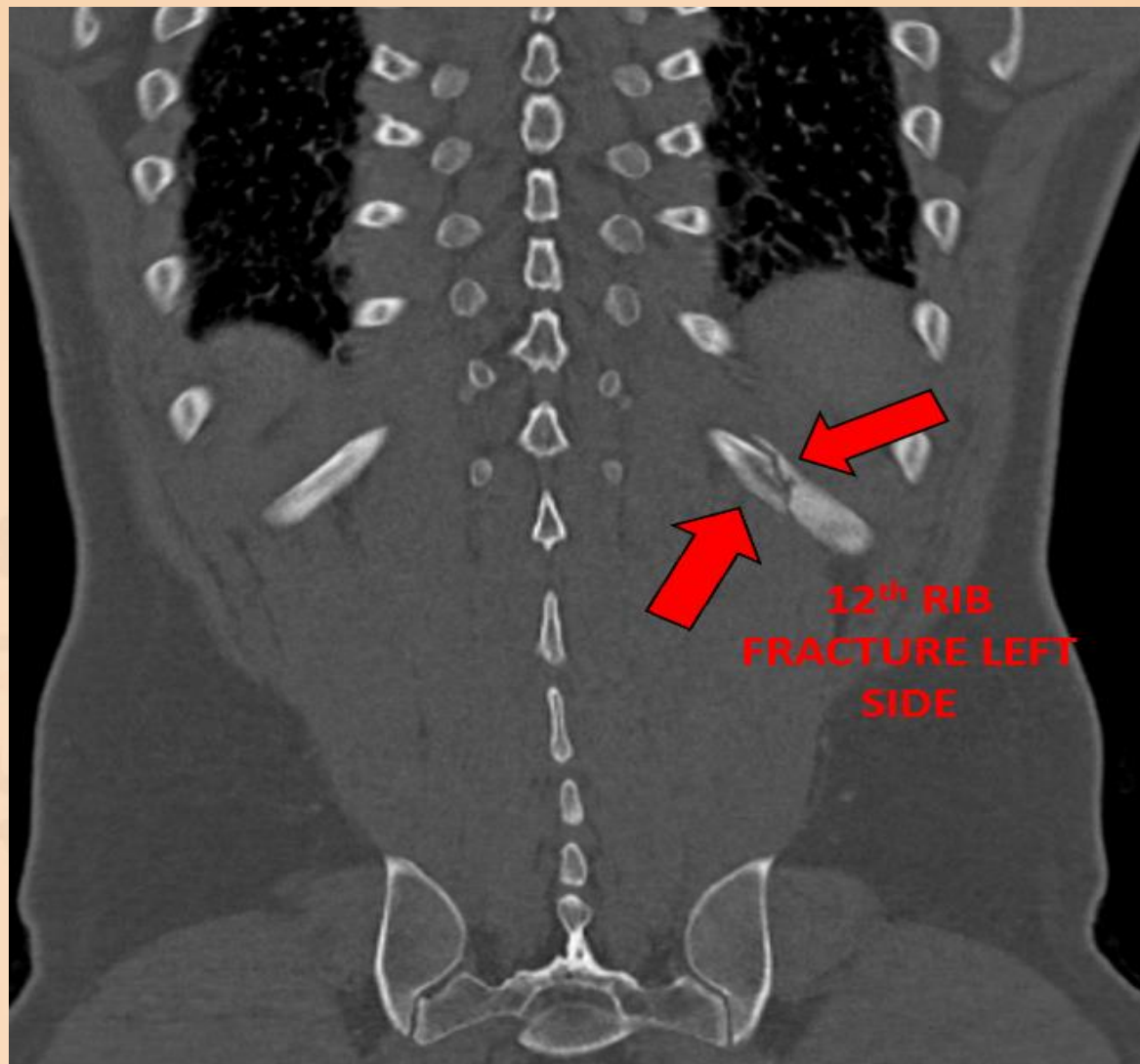
Sample Deposition  
Presentation



DOI: 10/07/2016

Clinical image of John Doe showing injuries after  
motor vehicle accident

Sample Deposition  
Presentation



**John Doe**

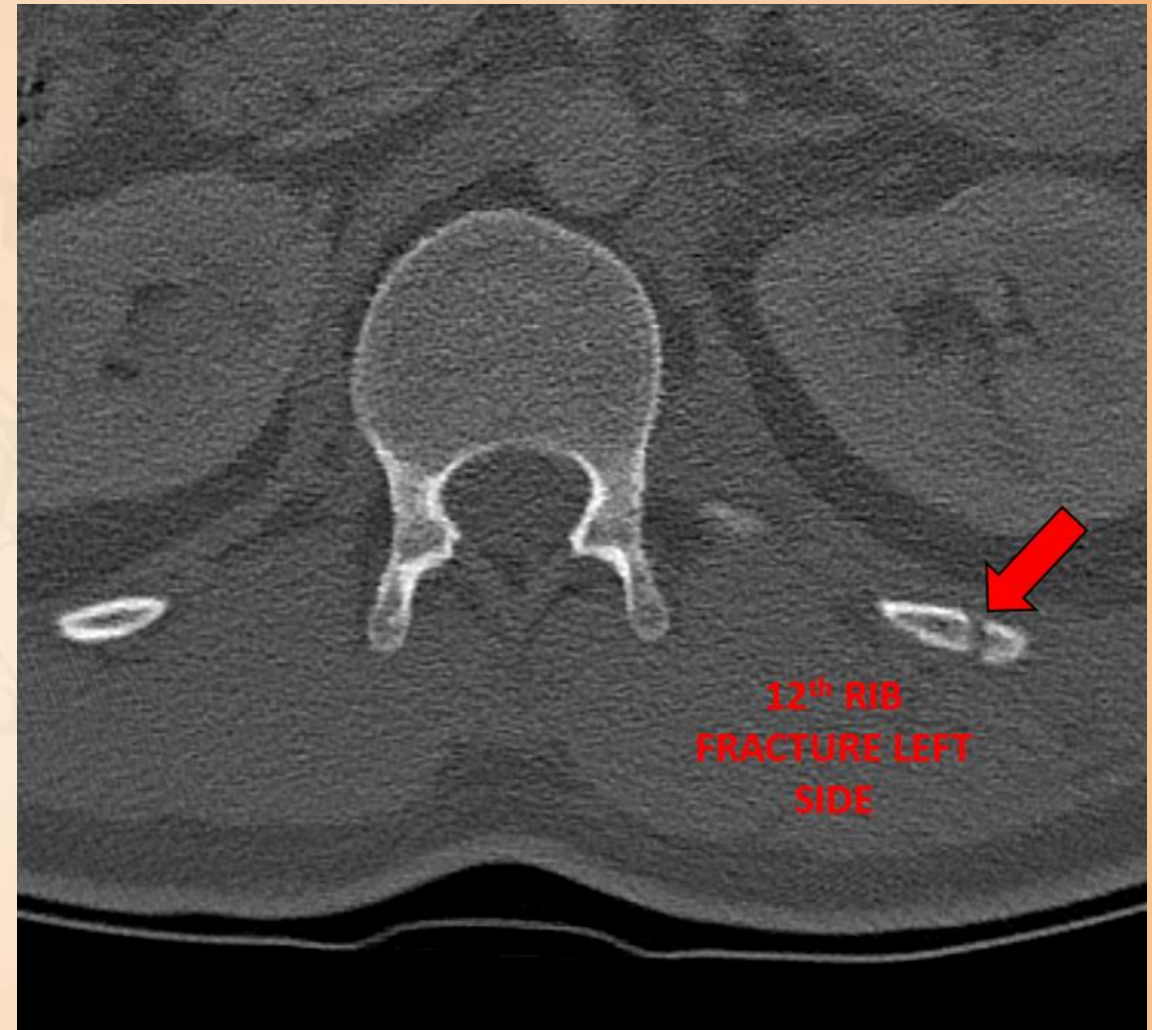
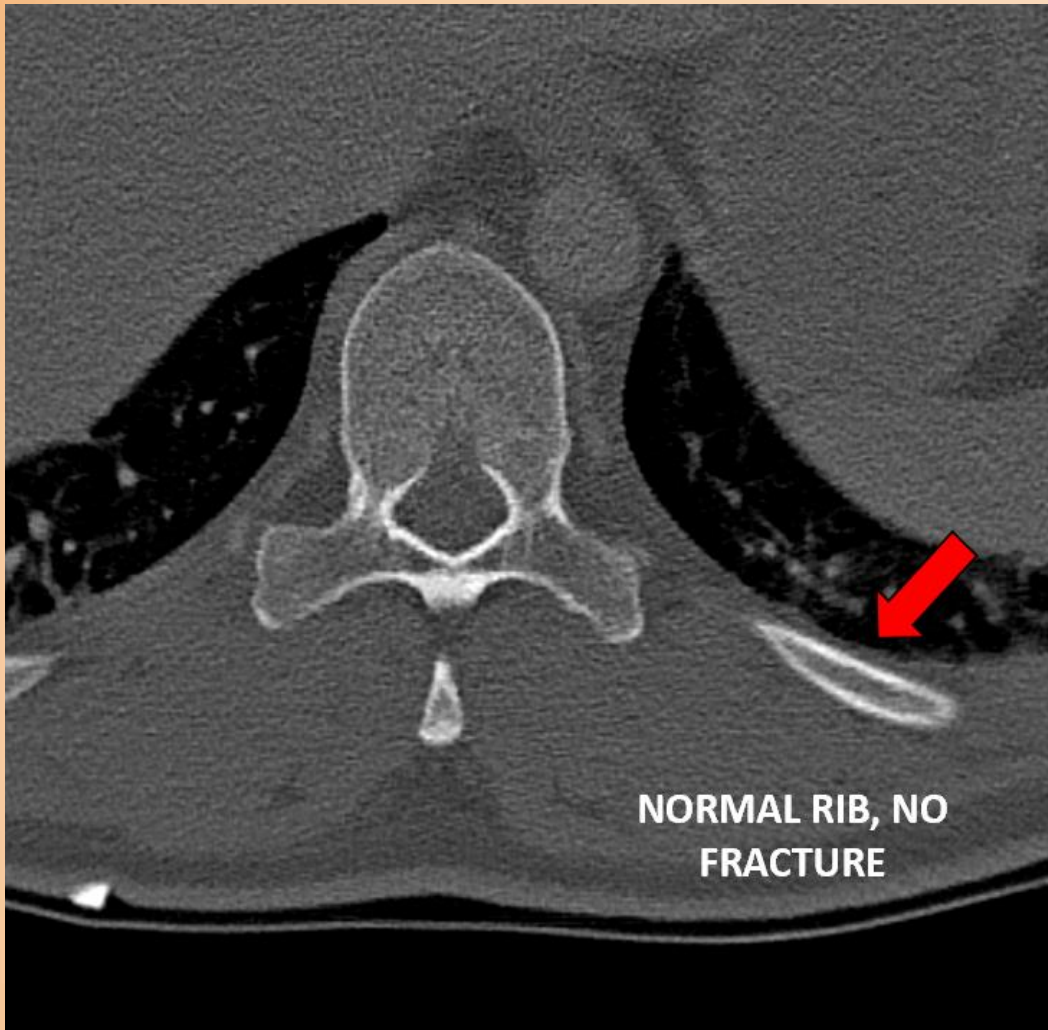
**DOI: 10/07/2016**

**CT CHEST & ADBOMEN DONE AT EMERGENCY ROOM**

**DOS: 10/07/2016**

Sample Deposition  
Presentation





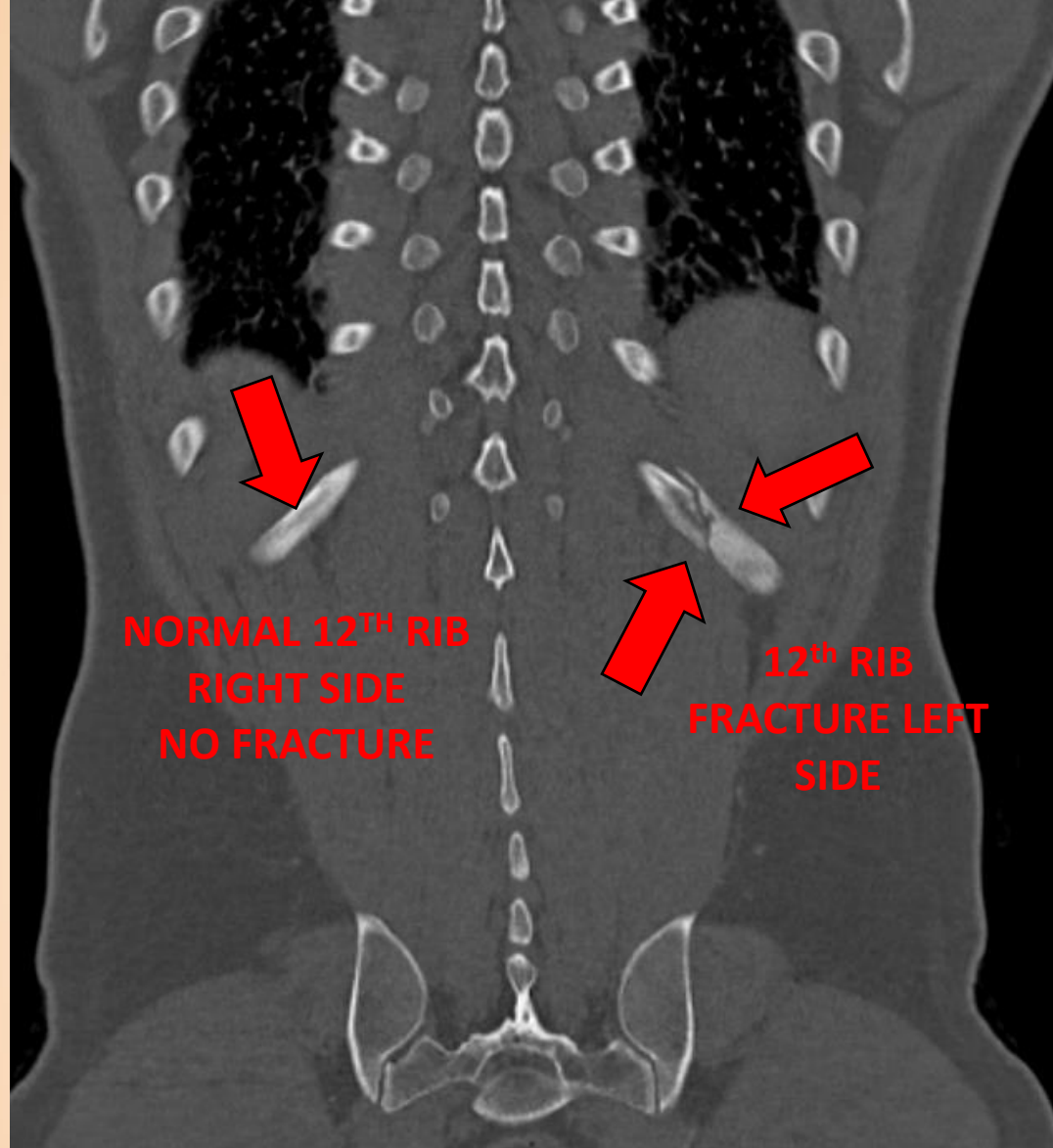
John Doe

DOI: 10/07/2016

CT CHEST & ADBOMEN DONE AT EMERGENCY ROOM

DOS: 10/07/2016

Sample Deposition  
Presentation



**NORMAL 12<sup>TH</sup> RIB  
RIGHT SIDE  
NO FRACTURE**

**12<sup>TH</sup> RIB  
FRACTURE LEFT  
SIDE**

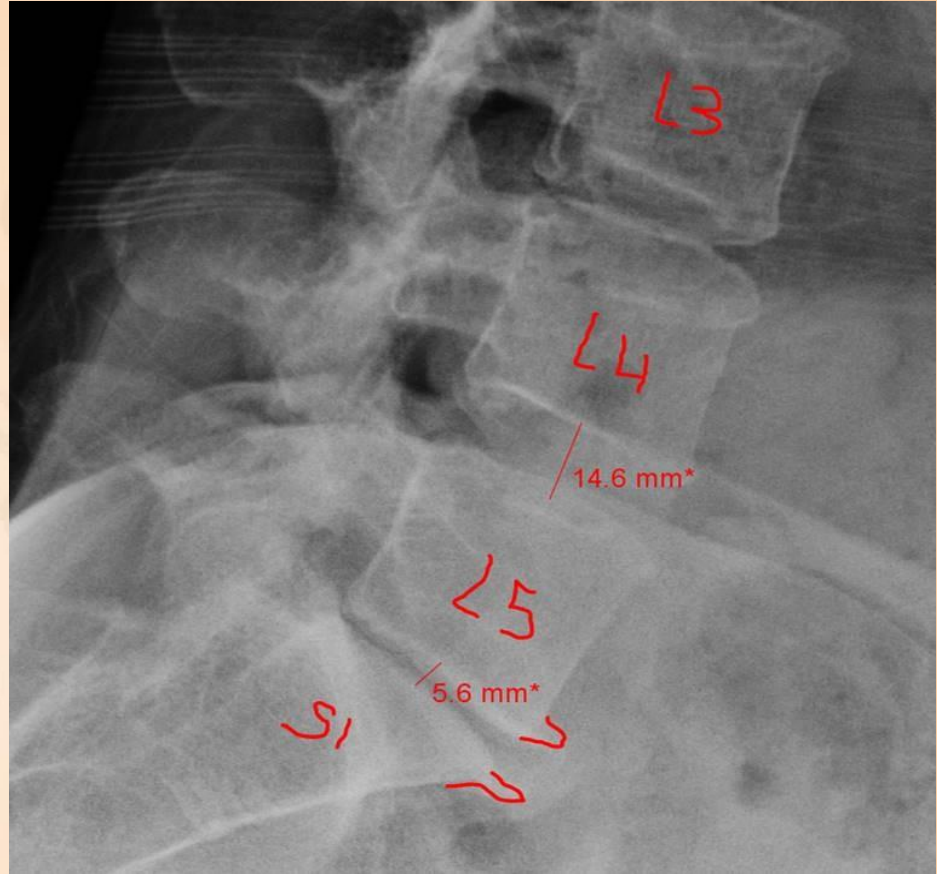
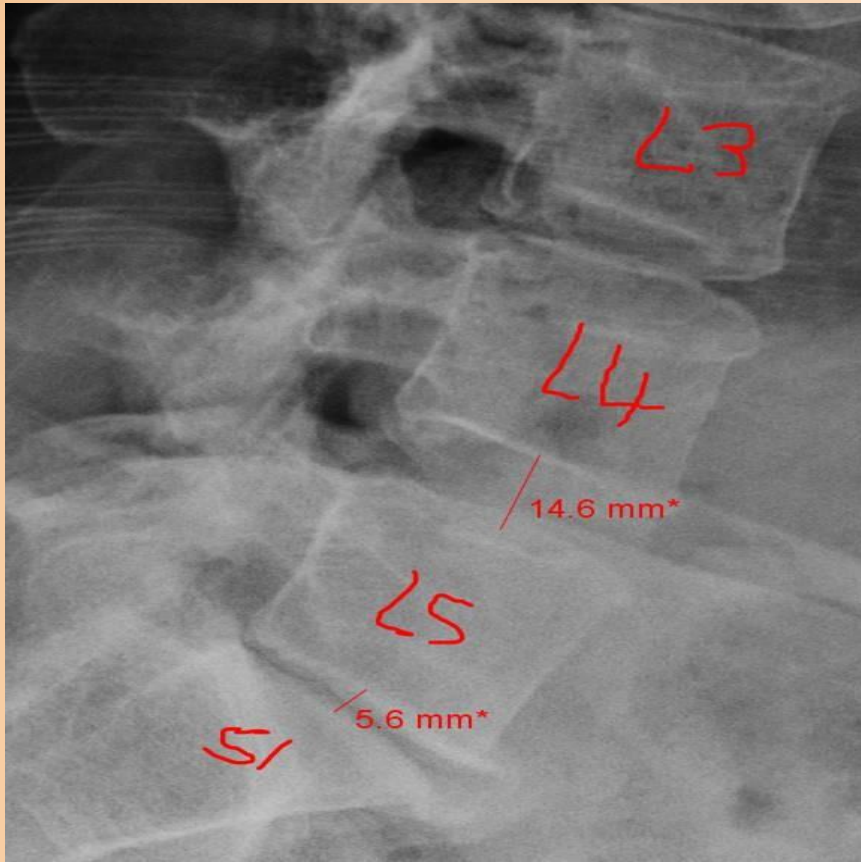
**John Doe**

**DOI: 10/07/2016**

**CT CHEST & ADBOMEN DONE AT EMERGENCY ROOM**

**DOS: 10/07/2016**

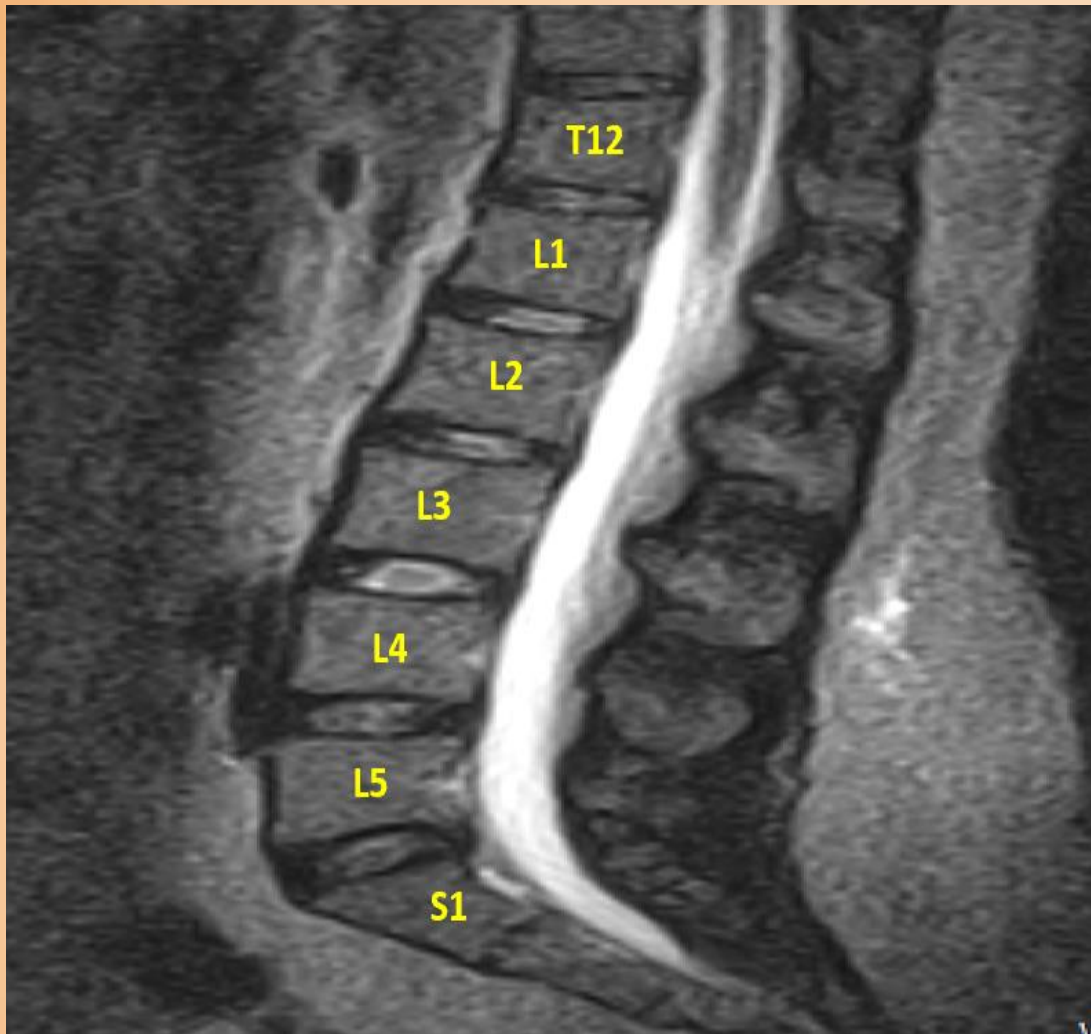
Sample Deposition  
Presentation



**L5/S1 LEVEL SHOWING DEGENERATION AND BONE SPURS**

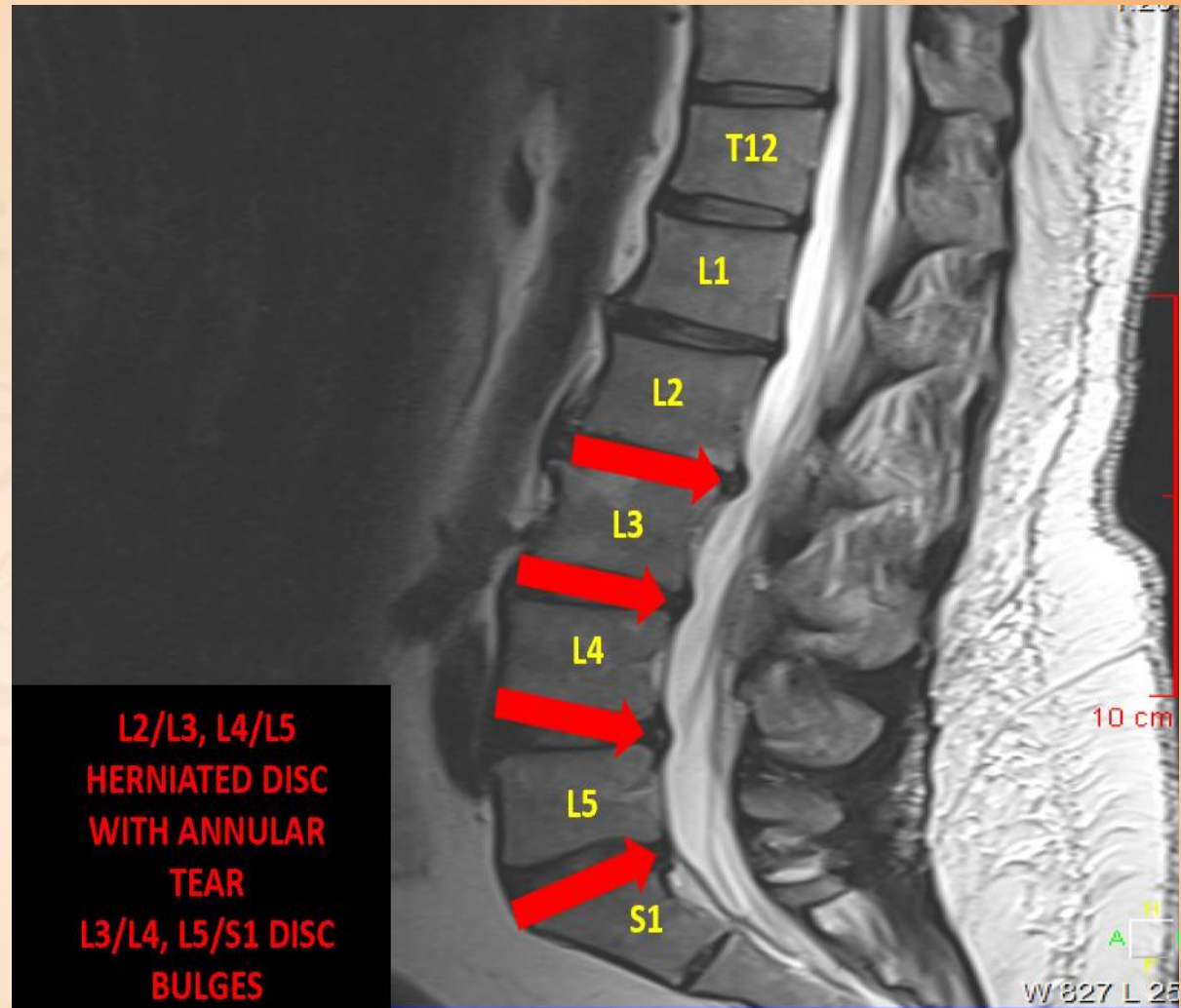
**John DOE**  
**Lumbar Spine X-ray**  
**DOS: 10/11/2016**  
**DOI: 10/07/2016**

Sample Deposition  
Presentation



**MRI LUMBAR SPINE T2 SAG VIEW**

**DOS: 7/15/2009**



**MRI LUMBAR SPINE T2 SAG VIEW**

**DOS: 12/03/2016**

**L2/L3, L4/L5  
HERNIATED DISC  
WITH ANNULAR  
TEAR  
L3/L4, L5/S1 DISC  
BULGES**

**MRI LUMBAR SPINE COMPARISON**

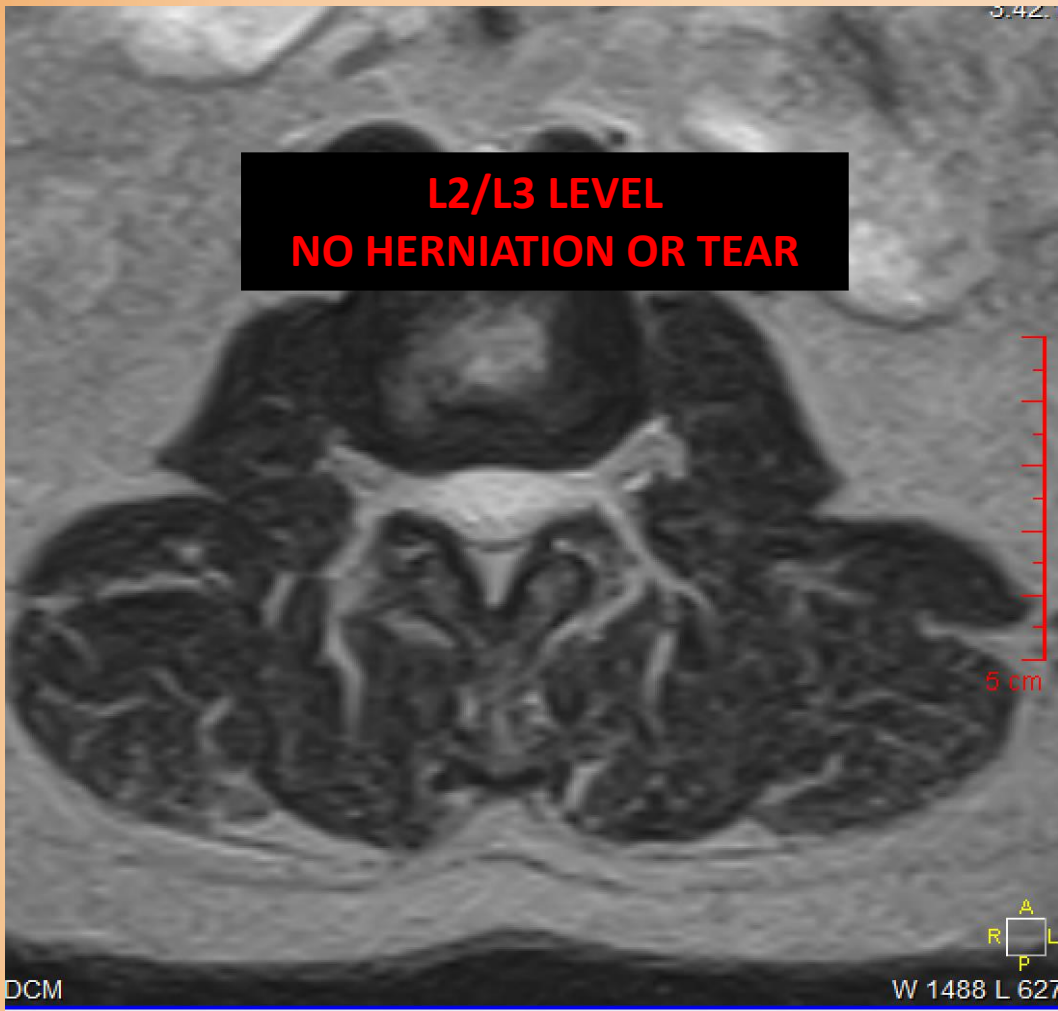
**John Doe**

**MRI Lumbar Spine T2 Axial view**

**DOI: 10/07/2016**

John Doe had pre-existing back pain; He had a lumbar spine MRI in 2009 which was negative for herniations. He had Physical therapy and got better after treatment until he had MVA 10/07/2016 when his low back pain flared up

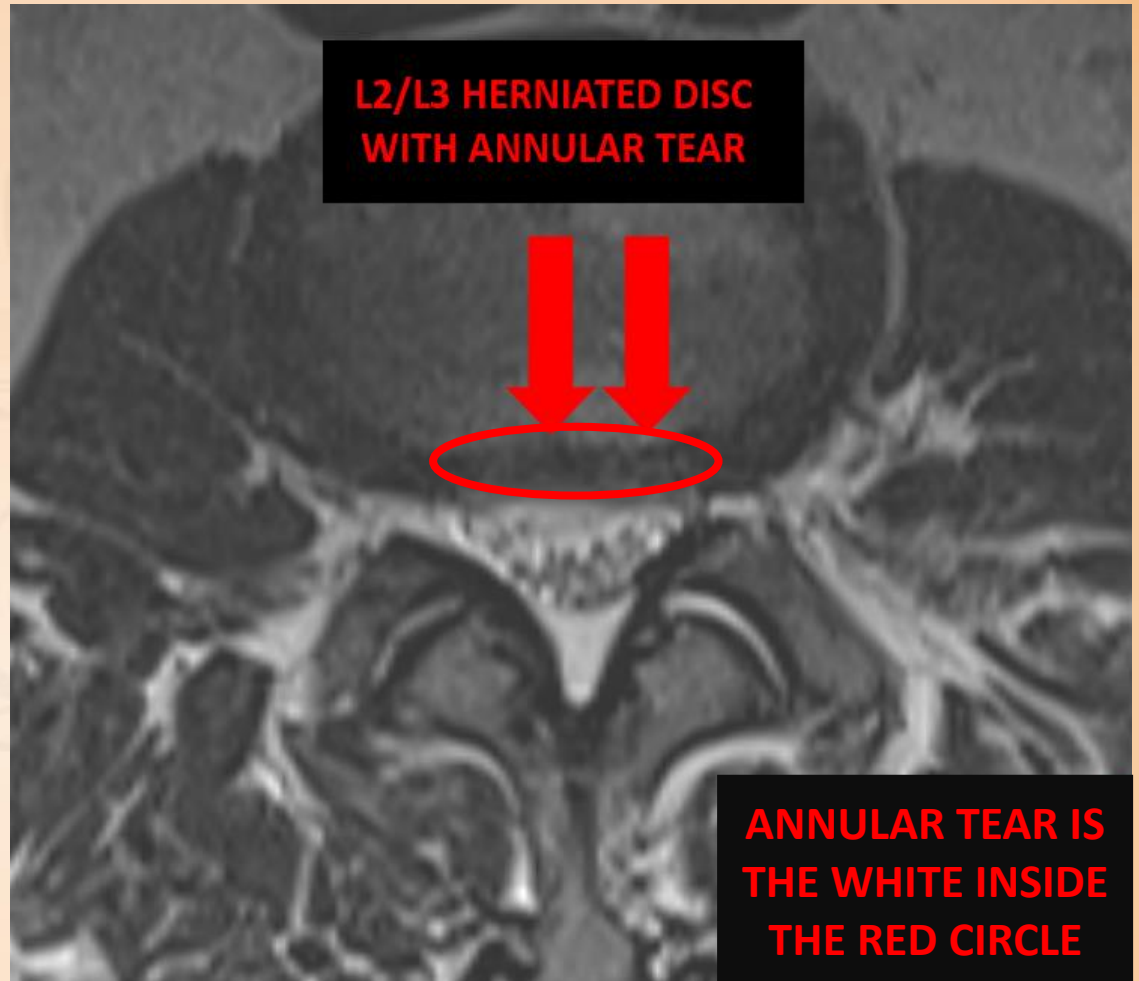
Sample Deposition  
Presentation



**MRI LUMBAR SPINE T2 AXIAL VIEW**

**DOS: 7/15/2009**

Sample Deposition  
Presentation



**MRI LUMBAR SPINE T2 AXIAL VIEW**

**DOS: 12/03/2016**

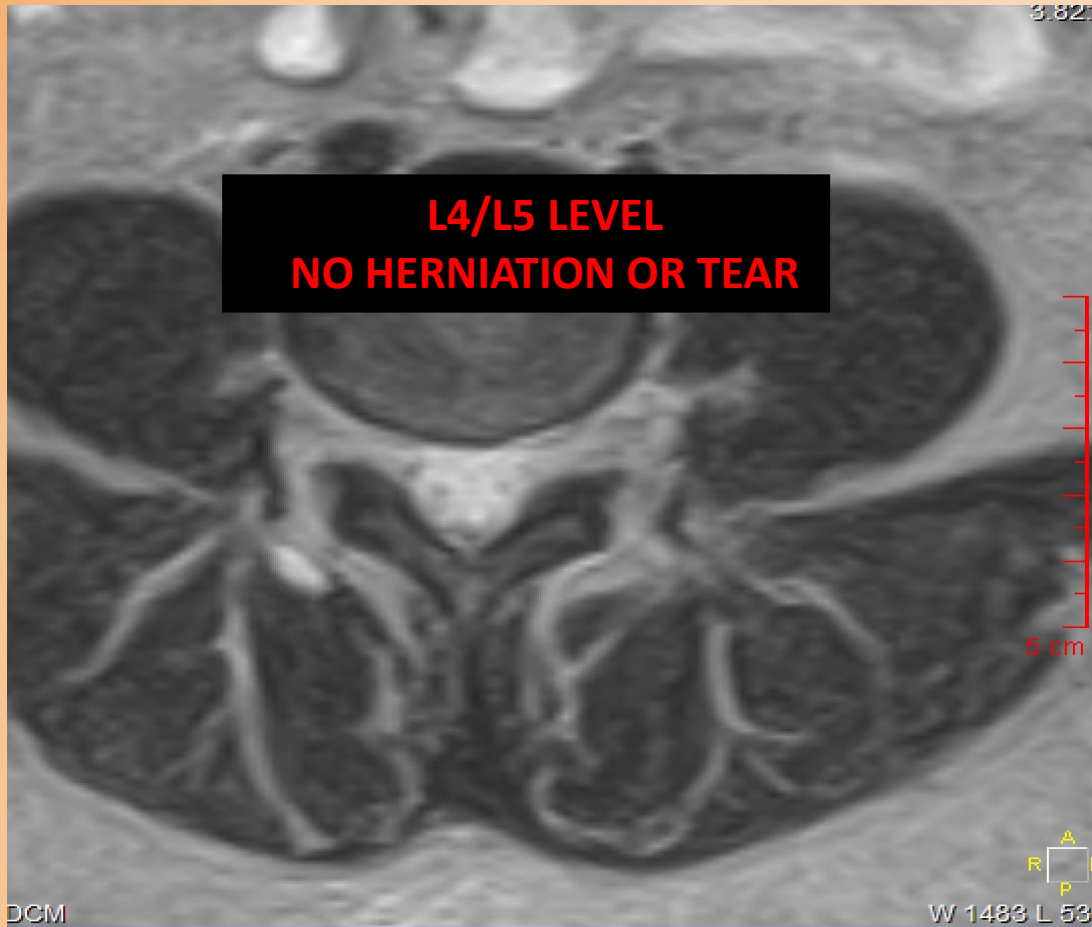
**MRI LUMBAR SPINE COMPARISON**

**John Doe**

**MRI Lumbar Spine T2 Axial view**

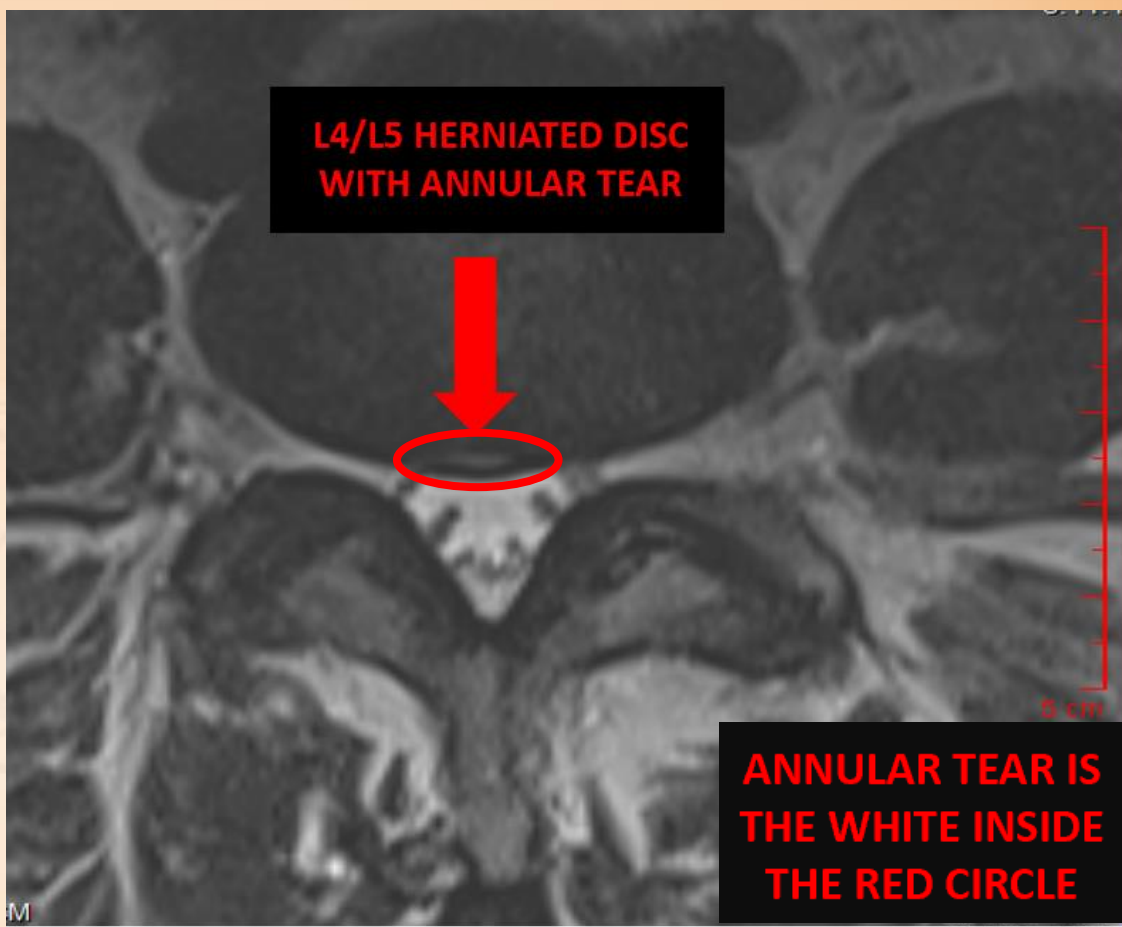
**DOI: 10/07/2016**

John Doe had pre-existing back pain, he had a lumbar spine MRI in 2009 which was negative for herniations. He had Physical therapy and got better after treatment until he had MVA 10/07/2016 when his low back pain flared up



**MRI LUMBAR SPINE T2 AXIAL VIEW**

**DOS: 7/15/2009**



**MRI LUMBAR SPINE T2 AXIAL VIEW**

**DOS: 12/03/2016**

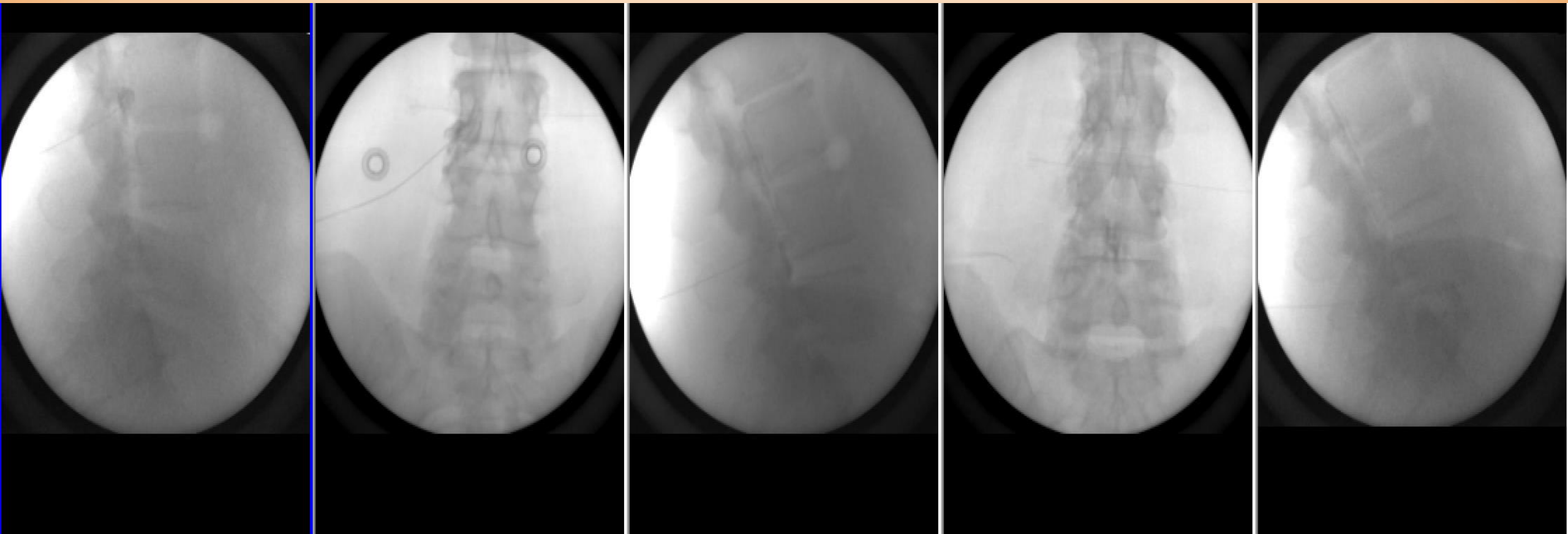
**MRI LUMBAR SPINE COMPARISON**

**John Doe**

**MRI Lumbar Spine T2 Axial view**

**DOI: 10/07/2016**

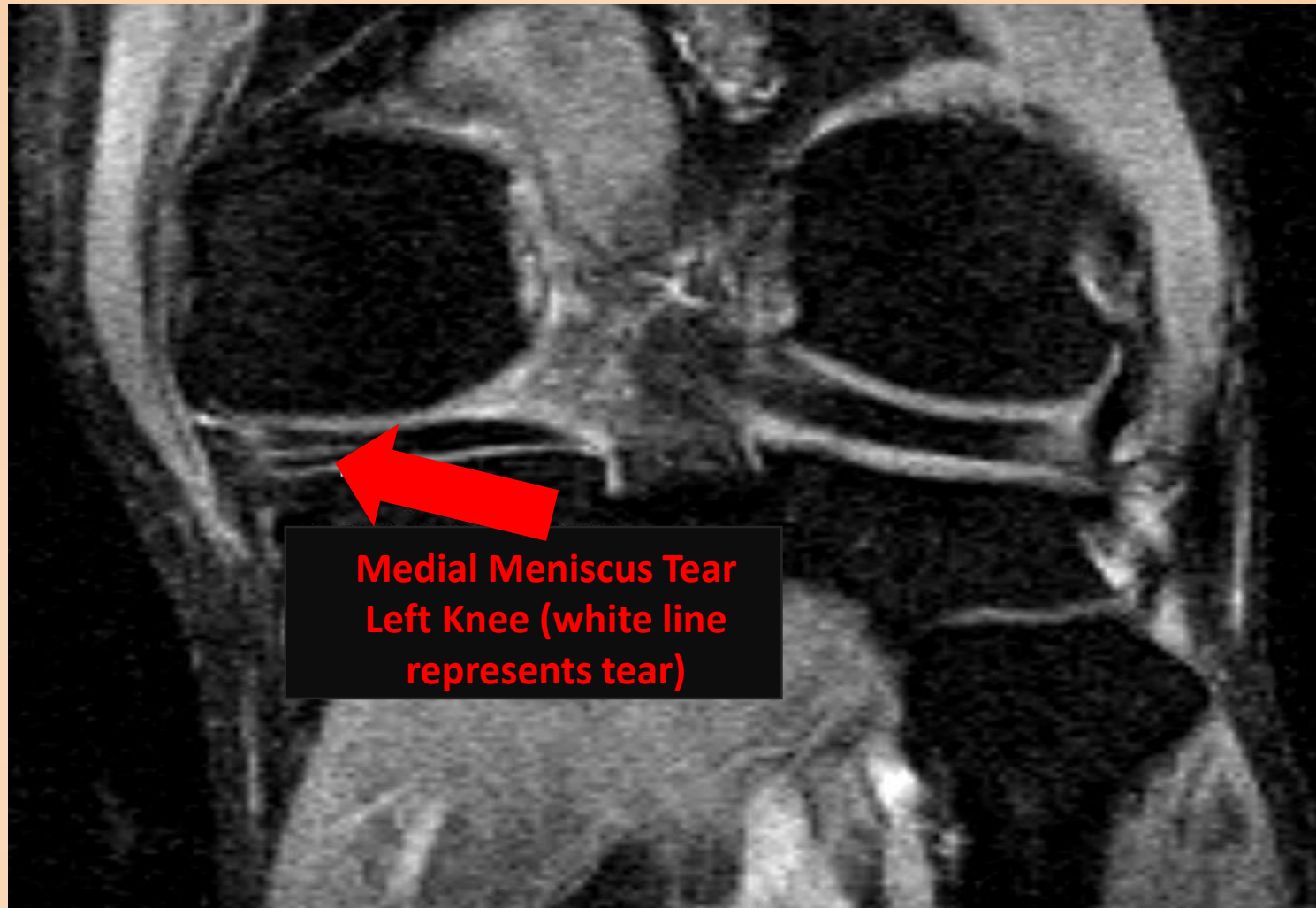
John Doe had pre-existing back pain, he had a lumbar spine MRI in 2009 which was negative for herniations. He had Physical therapy and got better after treatment until he had MVA 10/07/2016 when his low back pain flared up



John Doe  
DOI: 10/07/2016

**Intra-operative fluoroscopy images of lumbar spine  
Left L3, L4, L5 Epidural Injection  
75% pain relief**

Sample Deposition  
Presentation

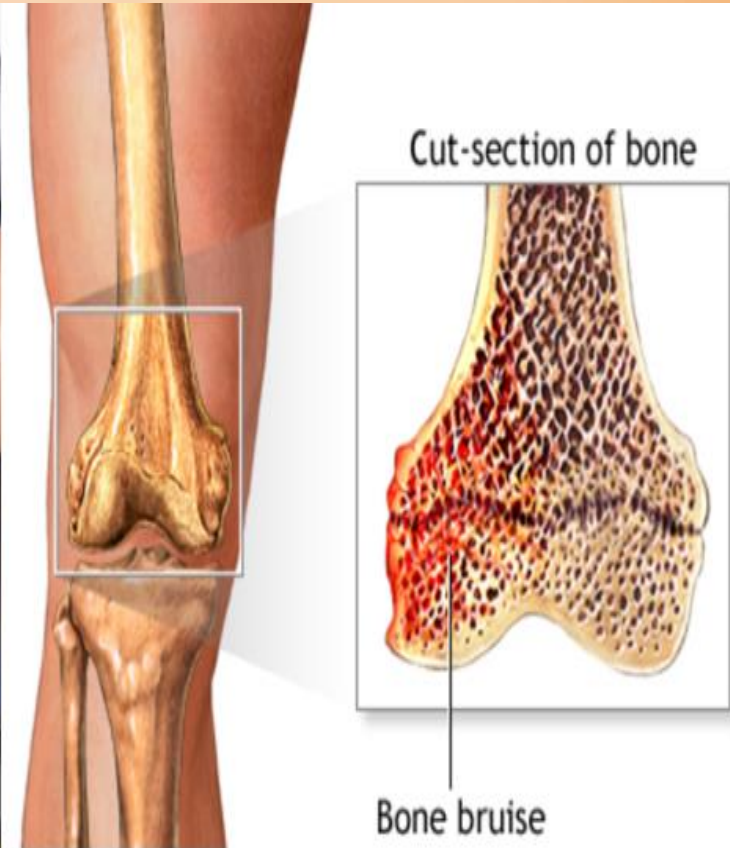
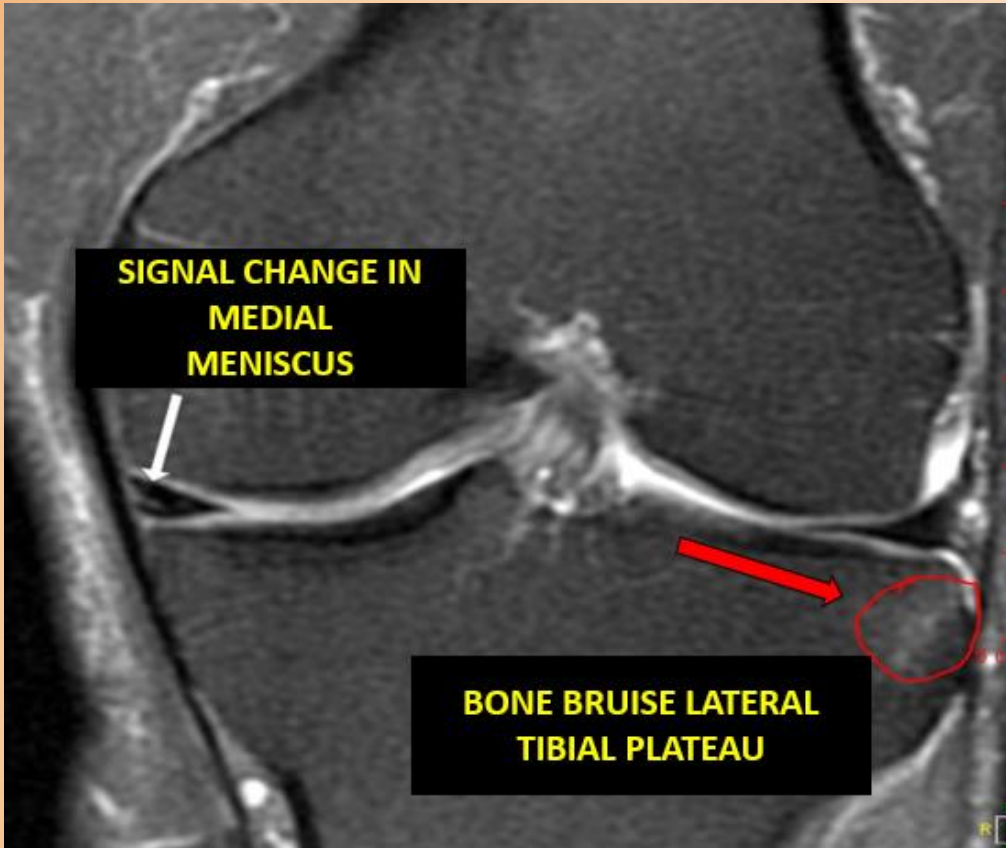


**Medial Meniscus Tear  
Left Knee (white line  
represents tear)**

**John Doe  
MRI LEFT KNEE  
DOS: 12/04/2016  
DOI: 10/07/2016**

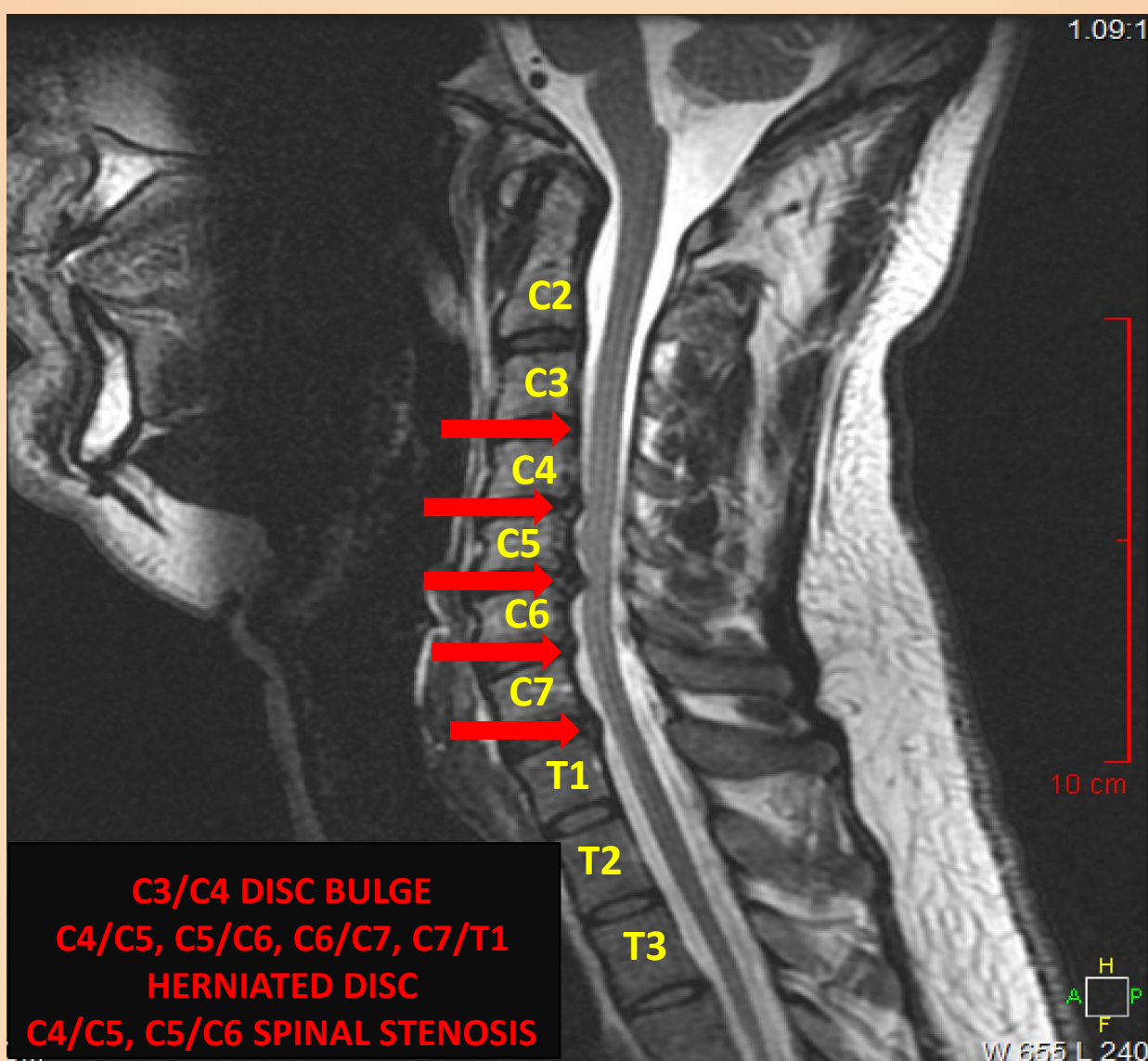
Sample Deposition  
Presentation



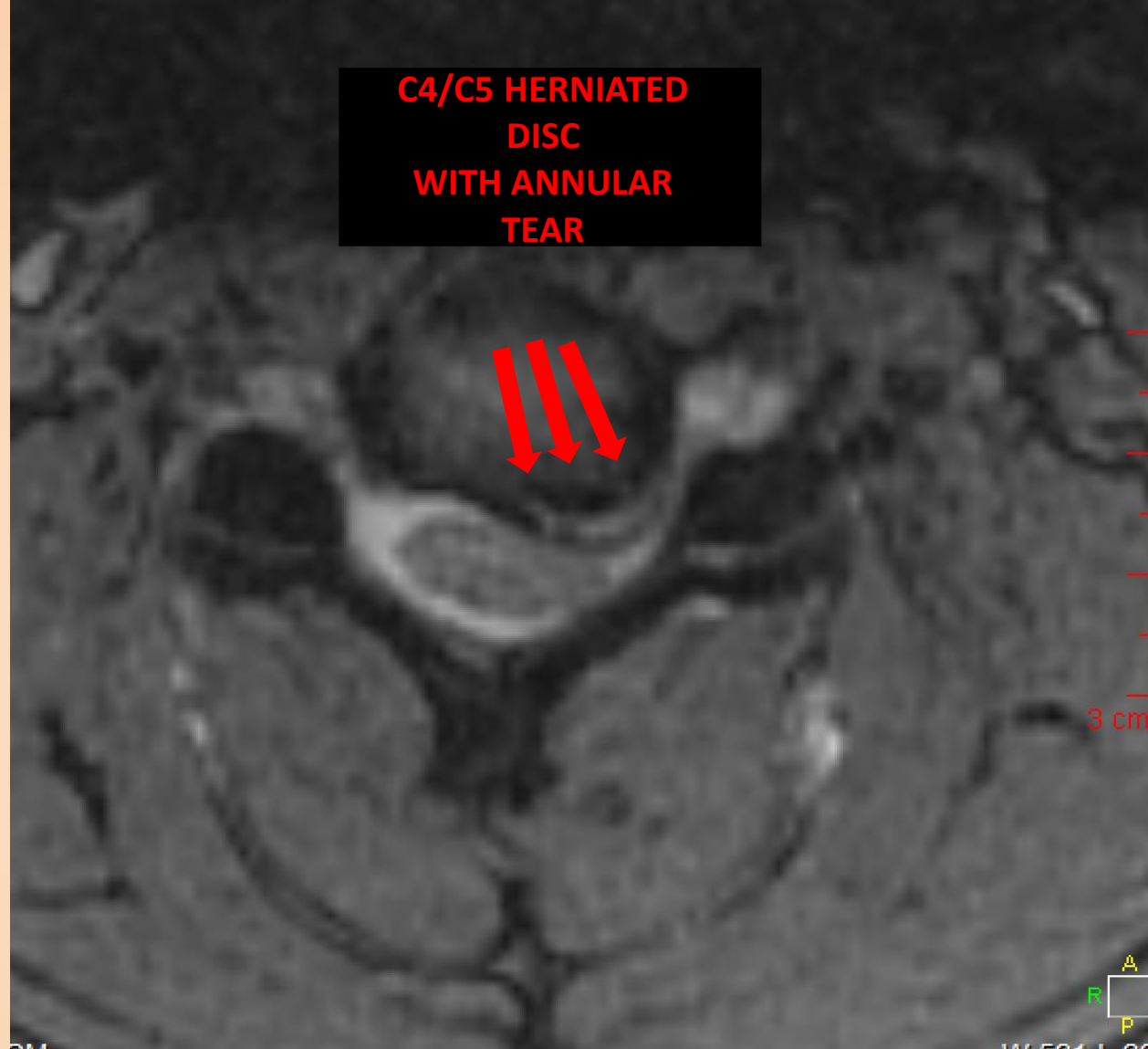


**John Doe**  
**MRI RIGHT KNEE**  
**DOS: 12/04/2016**  
**DOI: 10/07/2016**

Sample Deposition  
Presentation



**John Doe**  
**MRI Cervical Spine T2 Sag view**  
**DOS: 12/03/2016**  
**DOI: 10/07/2016**



**C4/C5 HERNIATED  
DISC  
WITH ANNULAR  
TEAR**

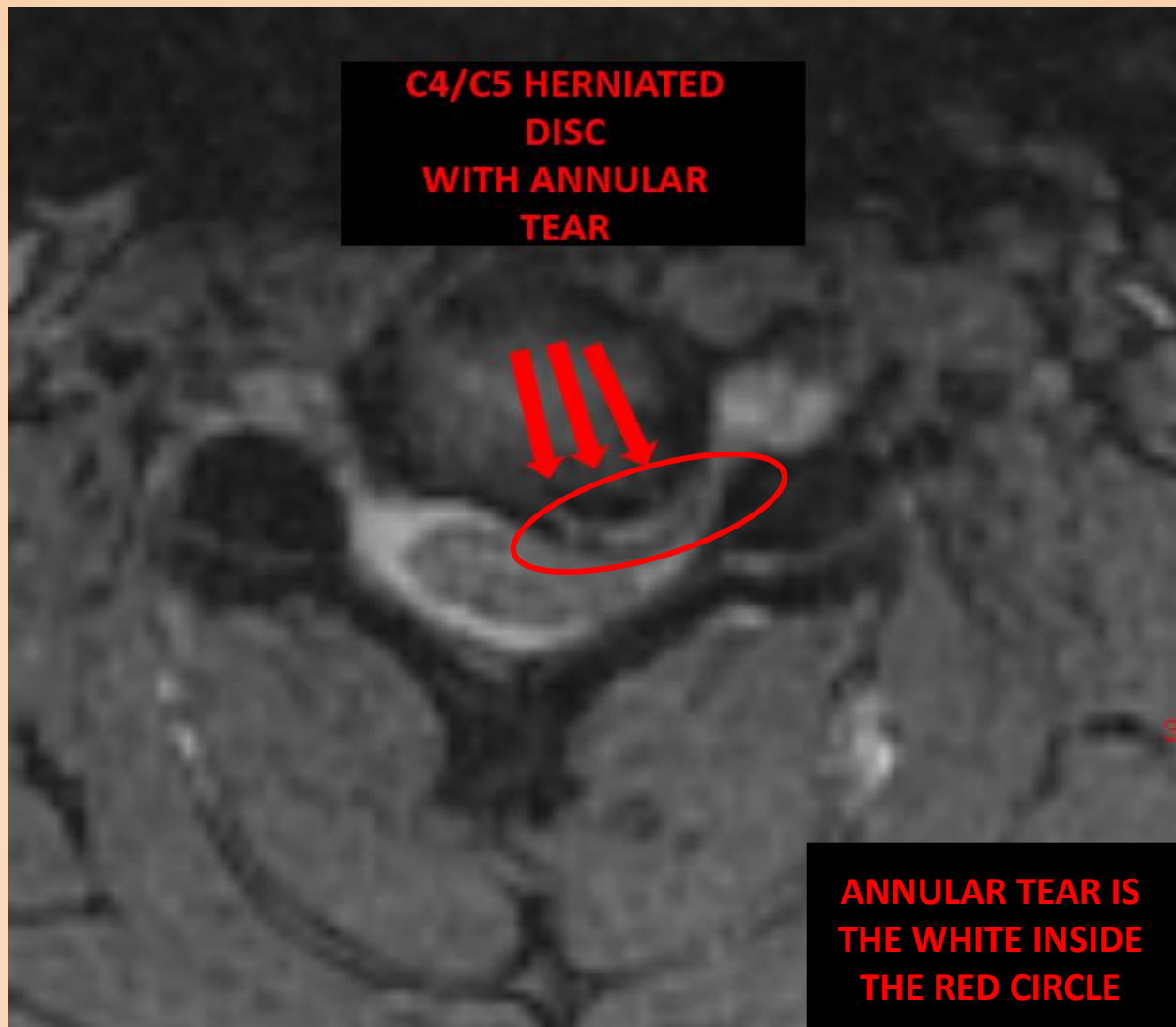
**John Doe**

**MRI Cervical Spine T2 Axial view**

**DOS: 12/03/2016**

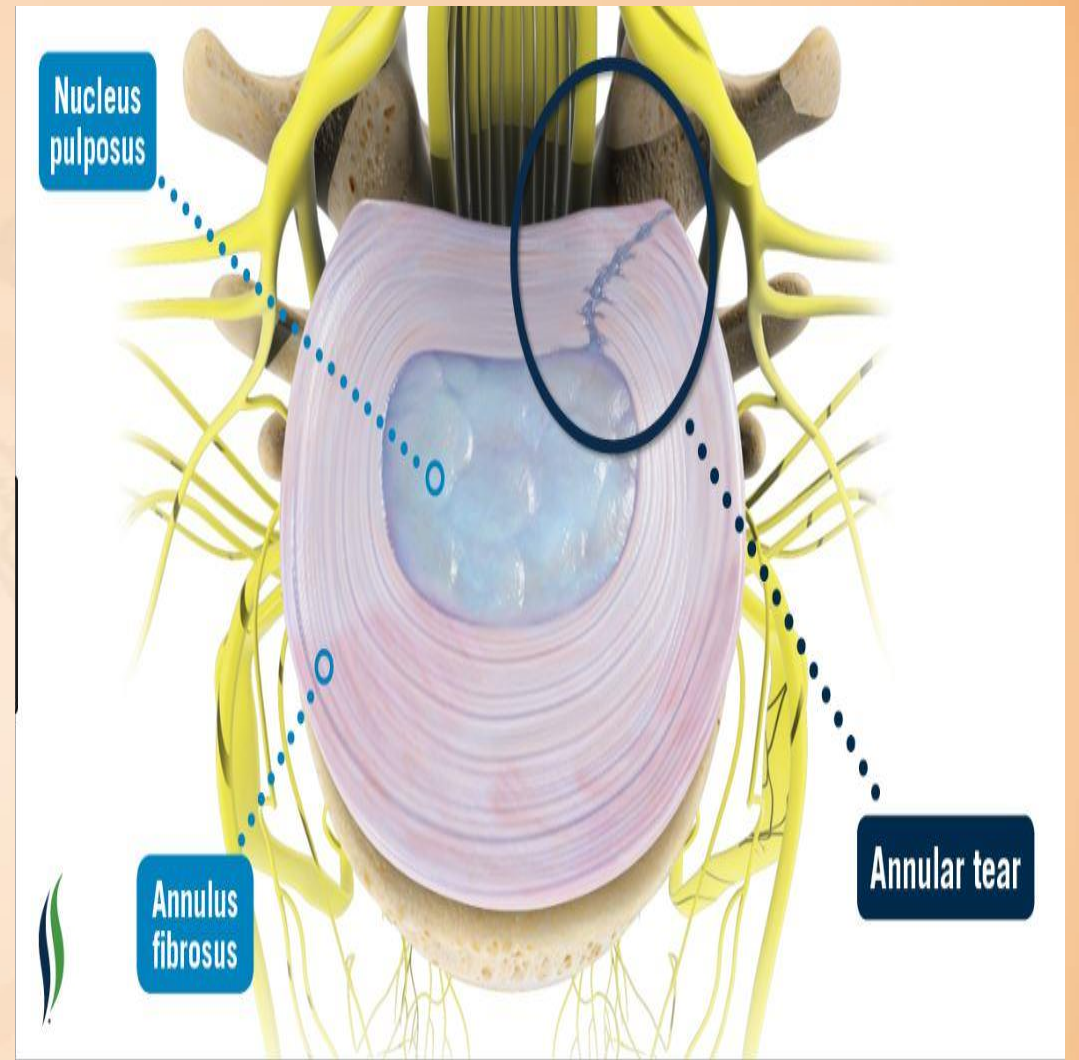
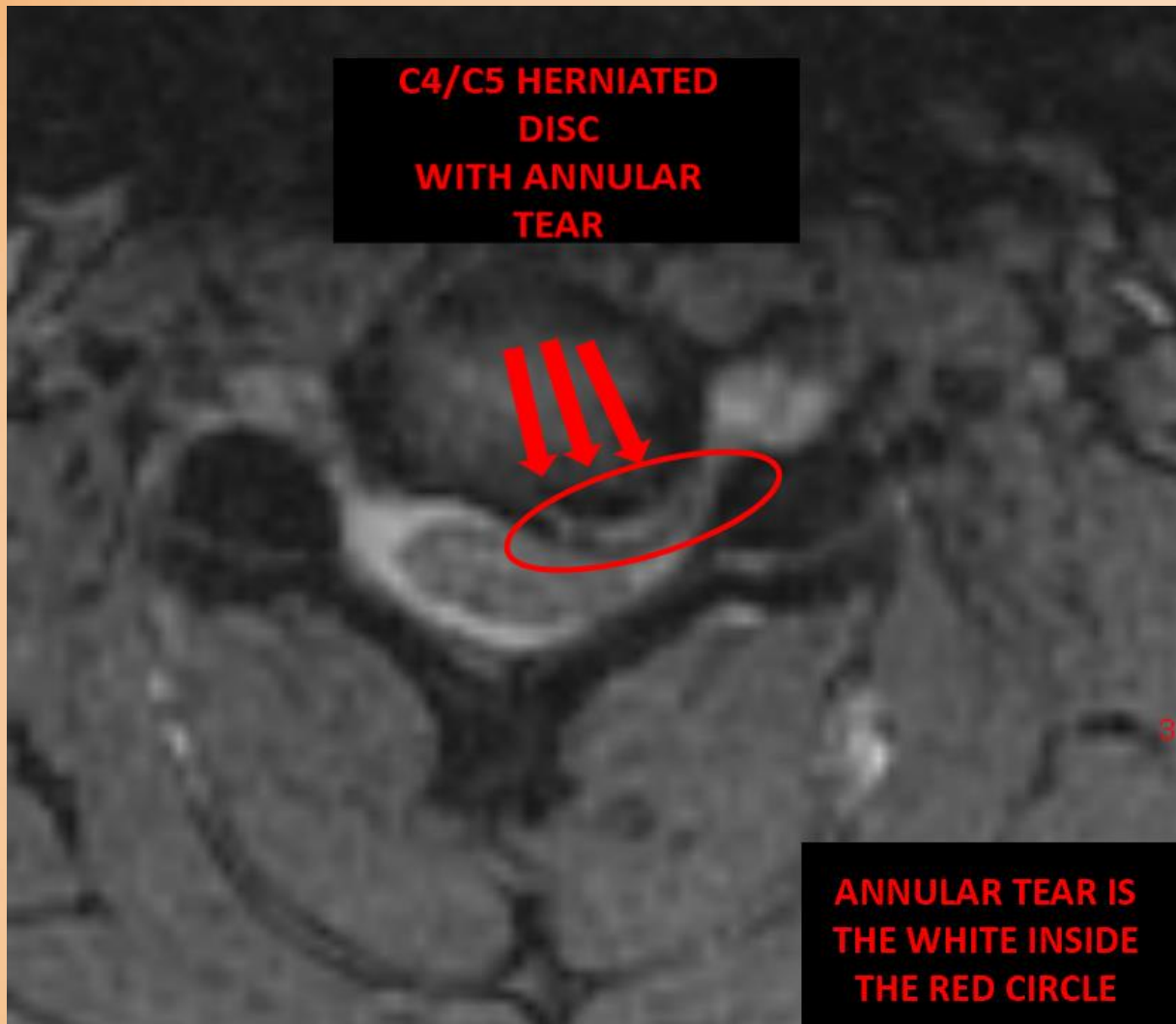
**DOI: 10/07/2016**

Sample Deposition  
Presentation

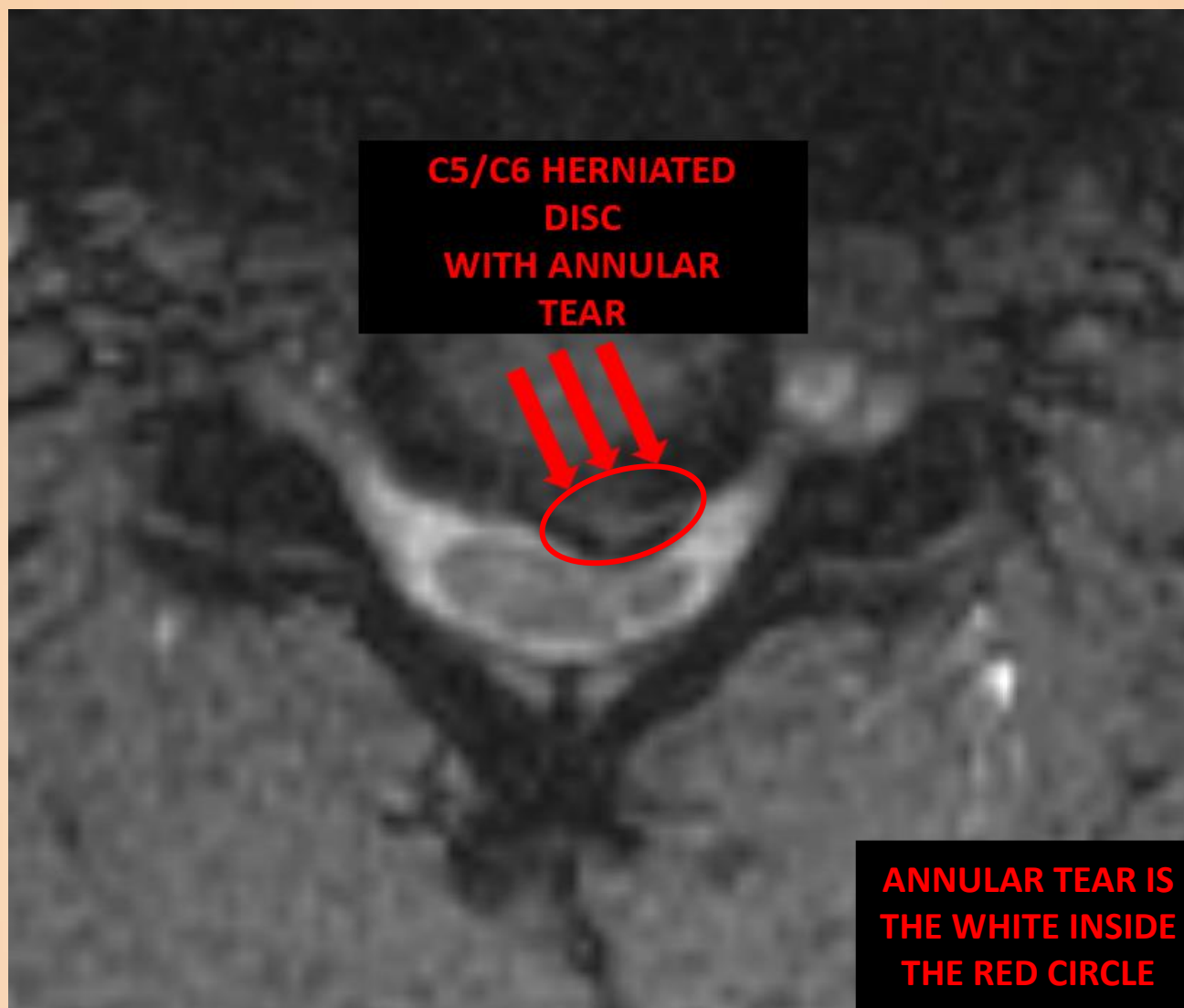


John Doe  
MRI Cervical Spine T2 Axial view  
DOS: 12/03/2016  
DOI: 10/07/2016

Sample Deposition  
Presentation

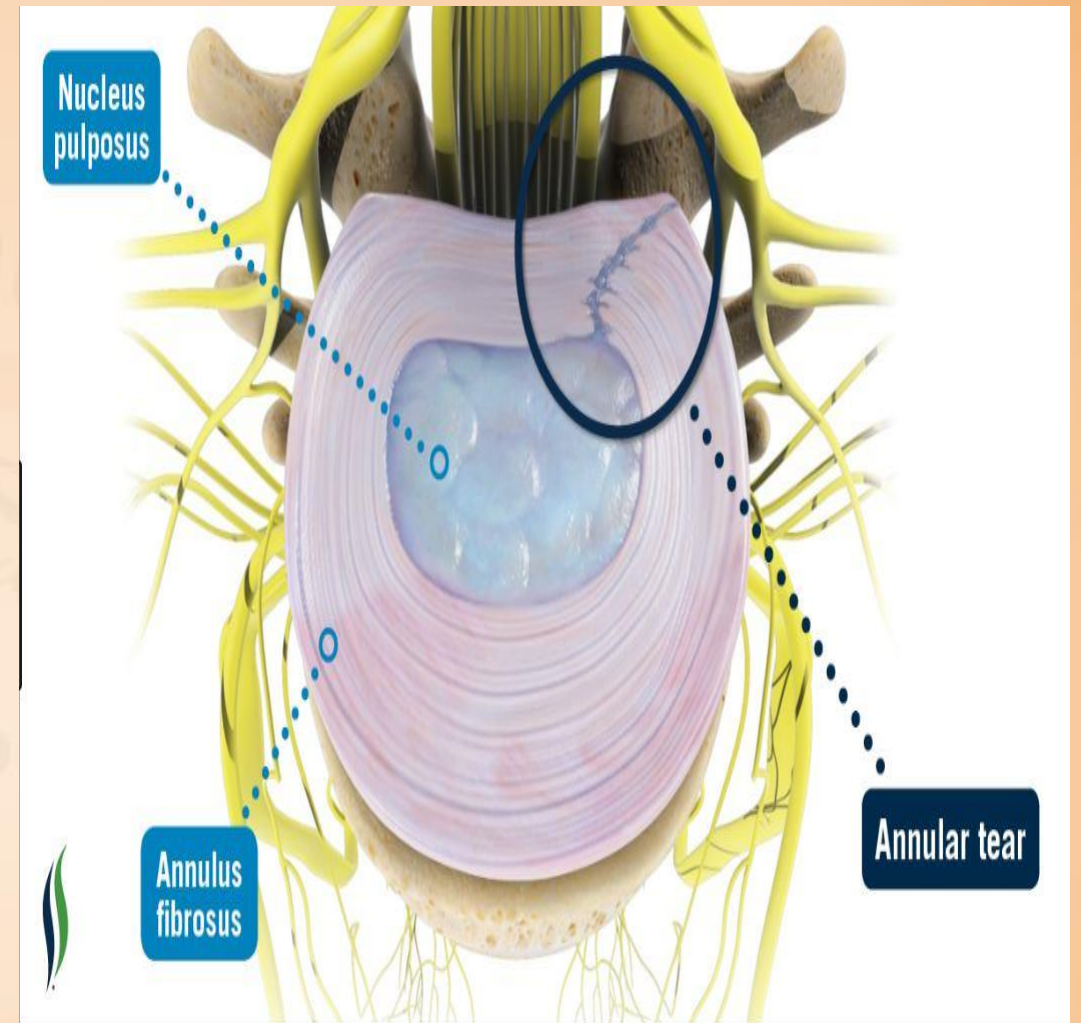
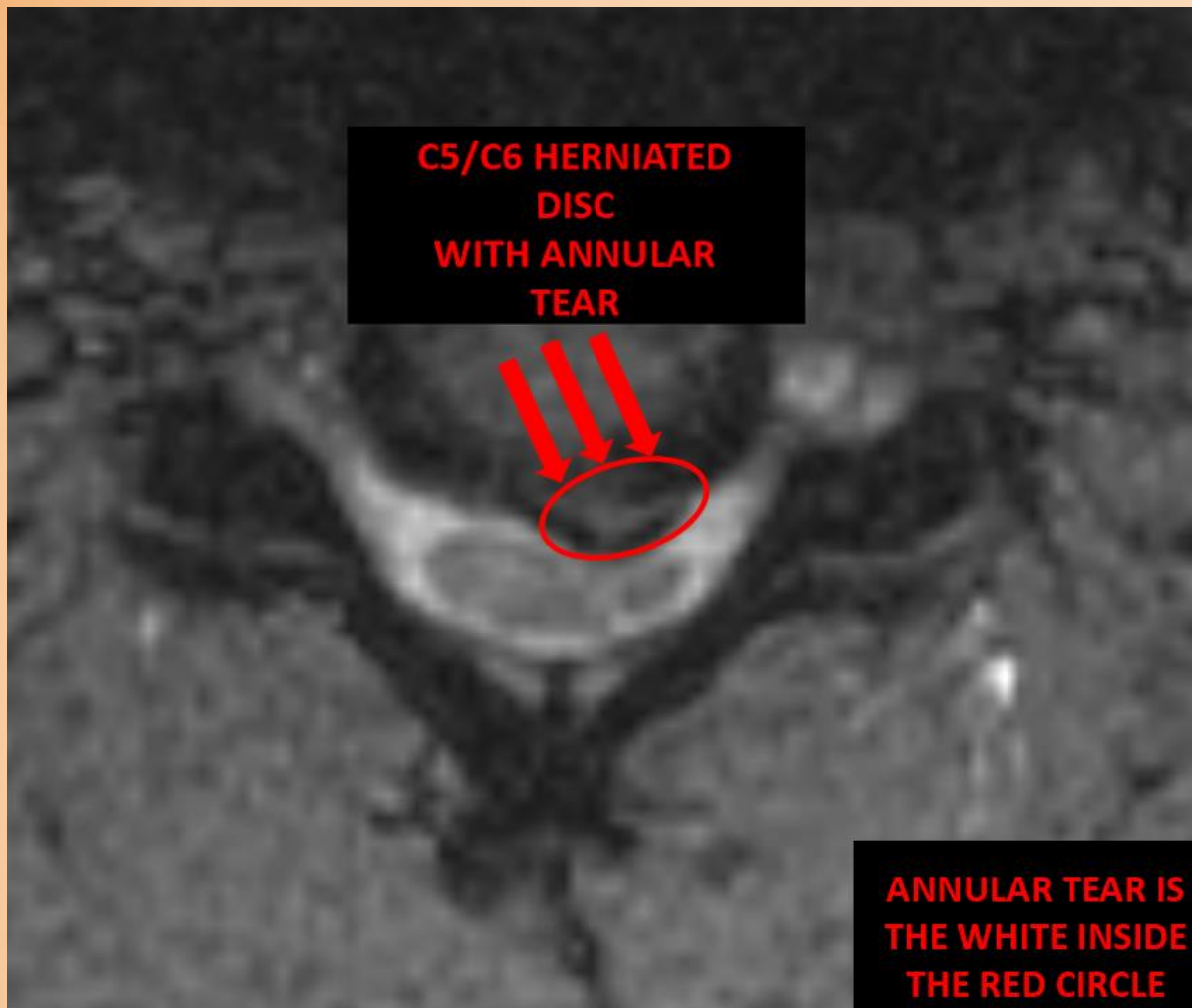


**John Doe**  
**MRI Cervical Spine T2 Axial view**  
**DOS: 12/03/2016**  
**DOI: 10/07/2016**



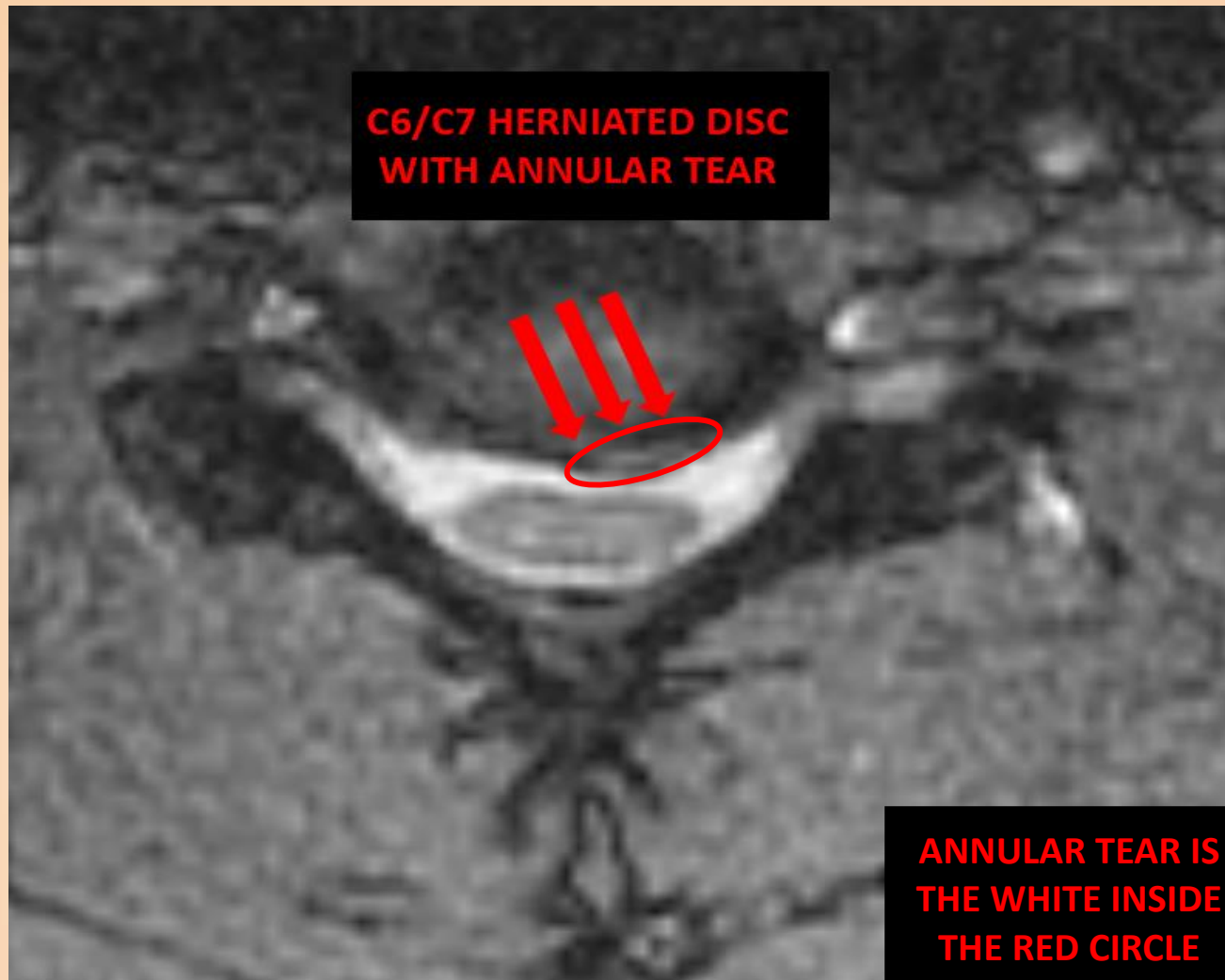
**John Doe**  
**MRI Cervical Spine T2 Axial view**  
**DOS: 12/03/2016**  
**DOI: 10/07/2016**

Sample Deposition  
Presentation



**John Doe**  
**MRI Cervical Spine T2 Axial view**  
**DOS: 12/03/2016**  
**DOI: 10/07/2016**

Sample Deposition  
Presentation



**John Doe**  
**MRI Cervical Spine T2 Axial view**  
**DOS: 12/03/2016**  
**DOI: 10/07/2016**

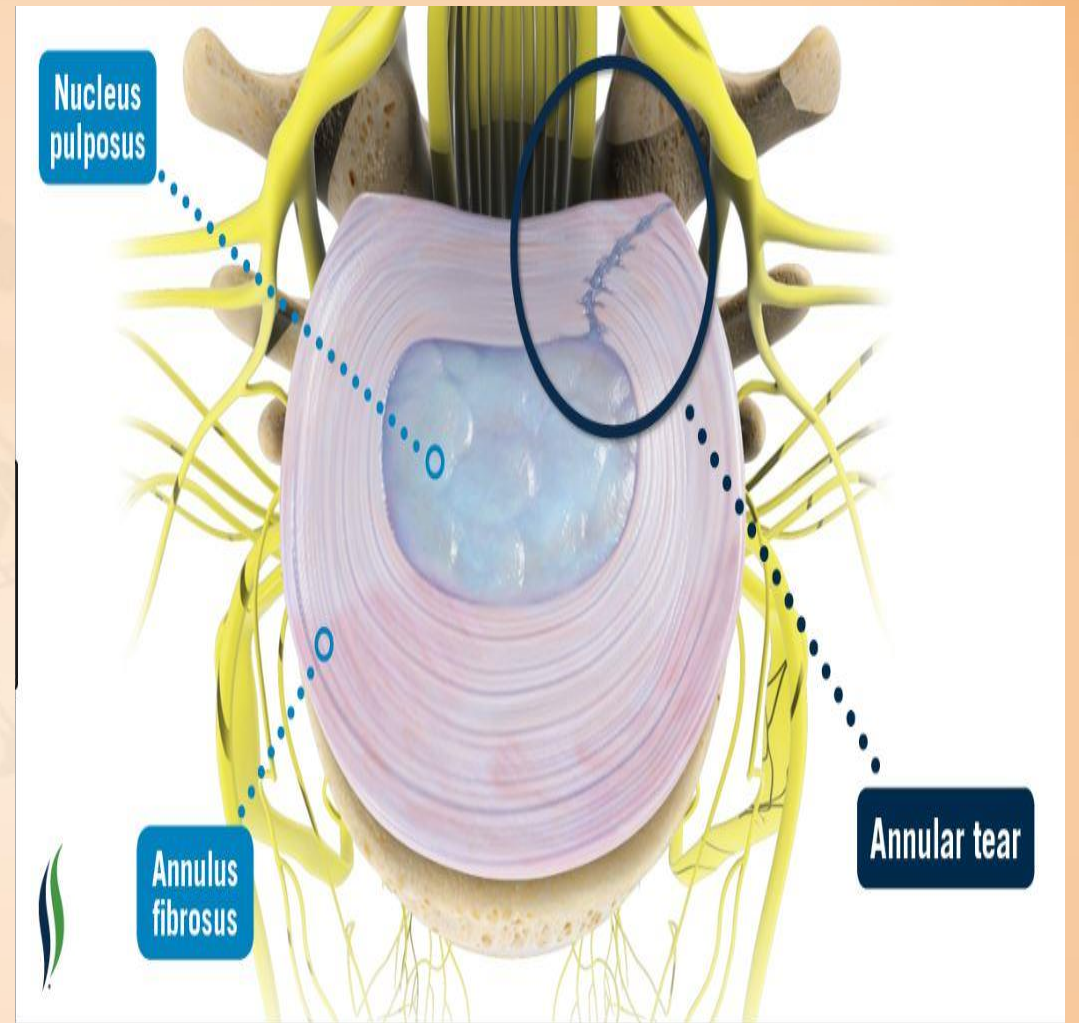
Sample Deposition  
Presentation



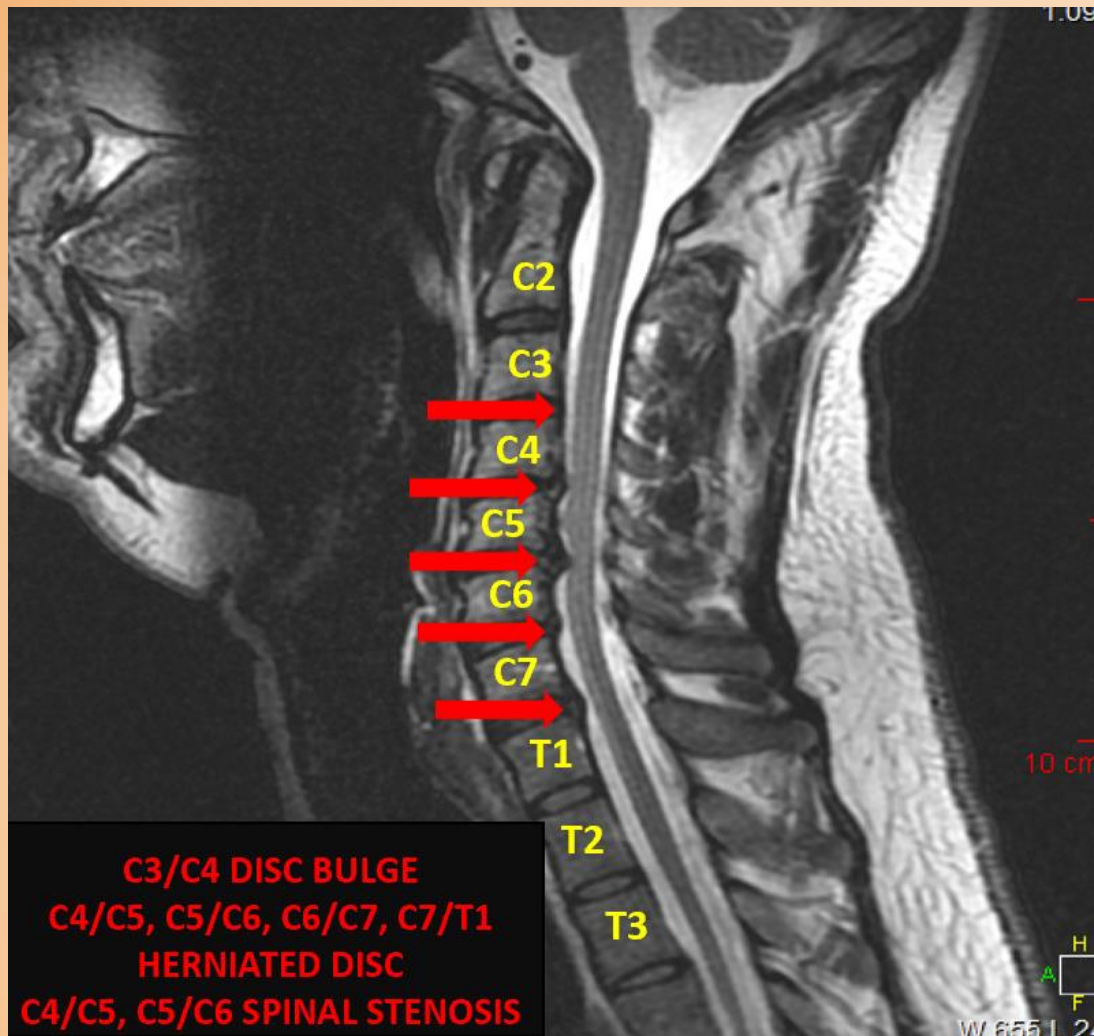
**C6/C7 HERNIATED DISC  
WITH ANNULAR TEAR**



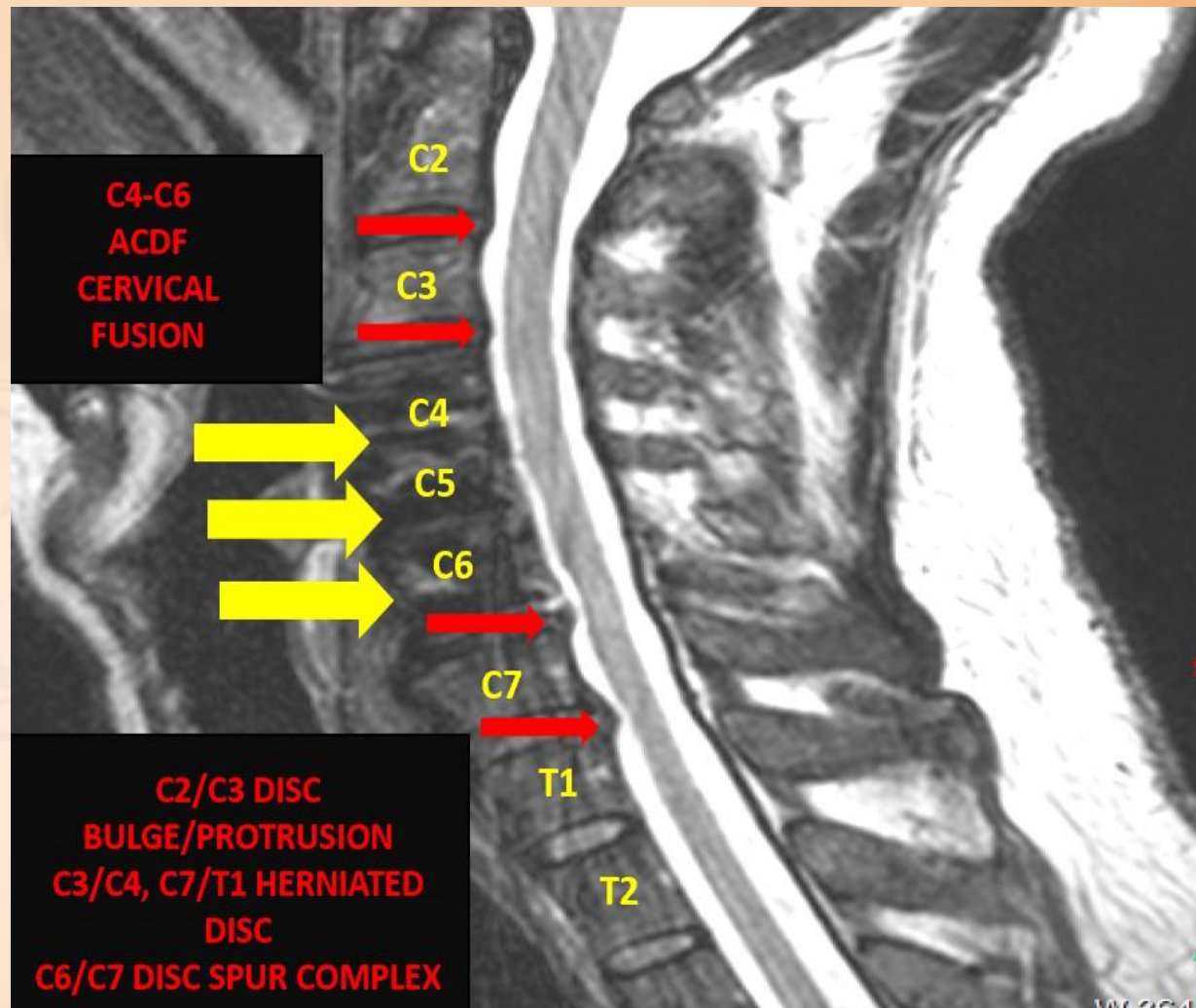
**ANNULAR TEAR IS  
THE WHITE INSIDE  
THE RED CIRCLE**



**John Doe**  
**MRI Cervical Spine T2 Axial view**  
**DOS: 12/03/2016**  
**DOI: 10/07/2016**



DOS: 12/03/2016



DOS: 04/15/2019

MRI COMPARISON

John Doe

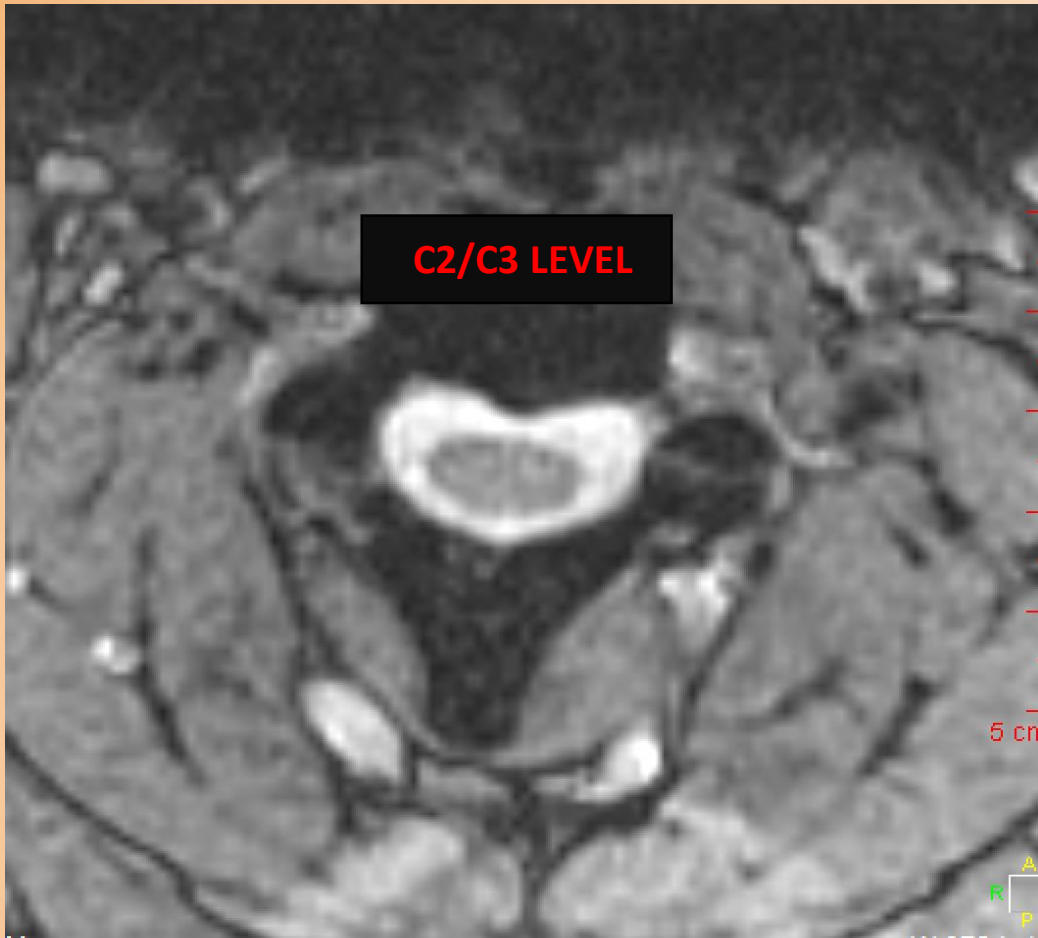
MRI Cervical Spine T2 Sag view

DOI: 10/07/2016 1<sup>st</sup> Accident

DOI: 12/13/2018 2<sup>nd</sup> Accident

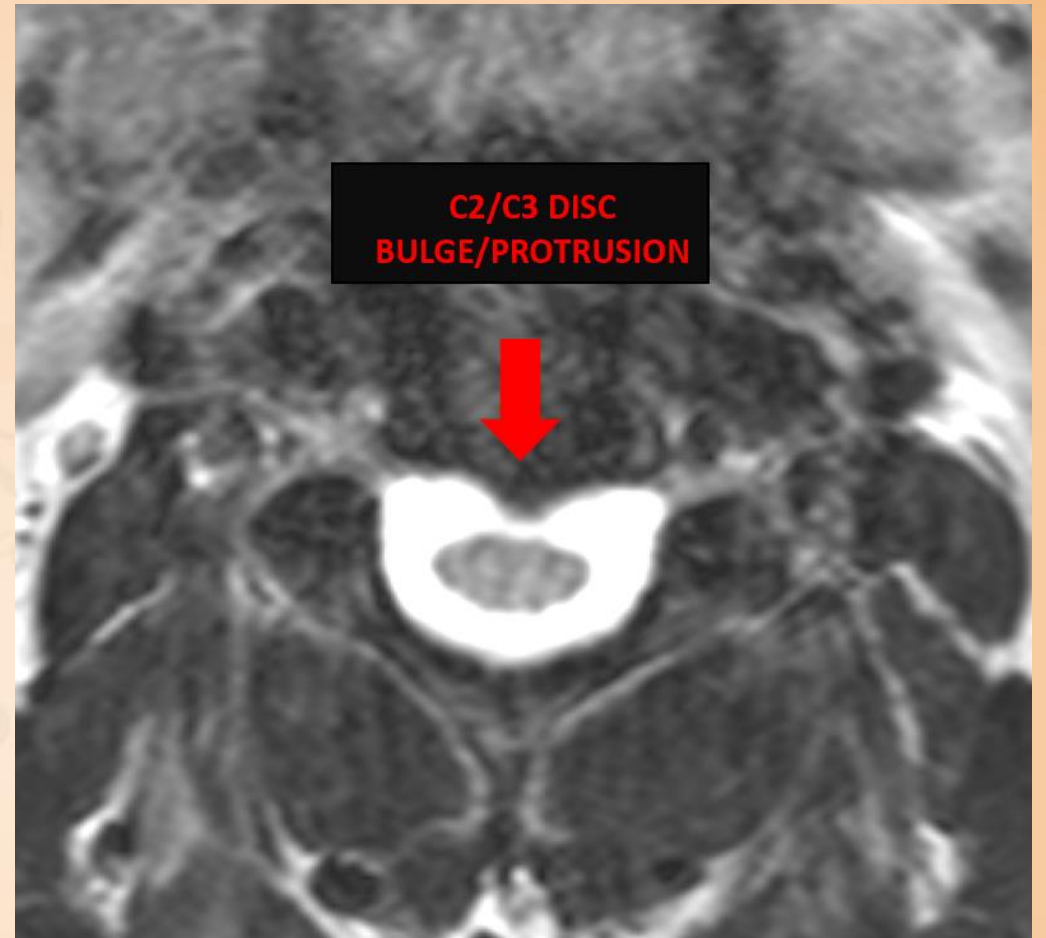
John Doe had Cervical Fusion surgery after the 10/07/2016 MVA. He had another MVA December 2018. Now he has a new herniation and old herniations are bigger. He injured in the second accident only his neck

Sample Deposition  
Presentation



**DOS: 12/03/2016**

**NO DISC  
PROTRUSION**



**DOS: 04/15/2019**

**DISC PROTRUSION**

**MRI COMPARISON**

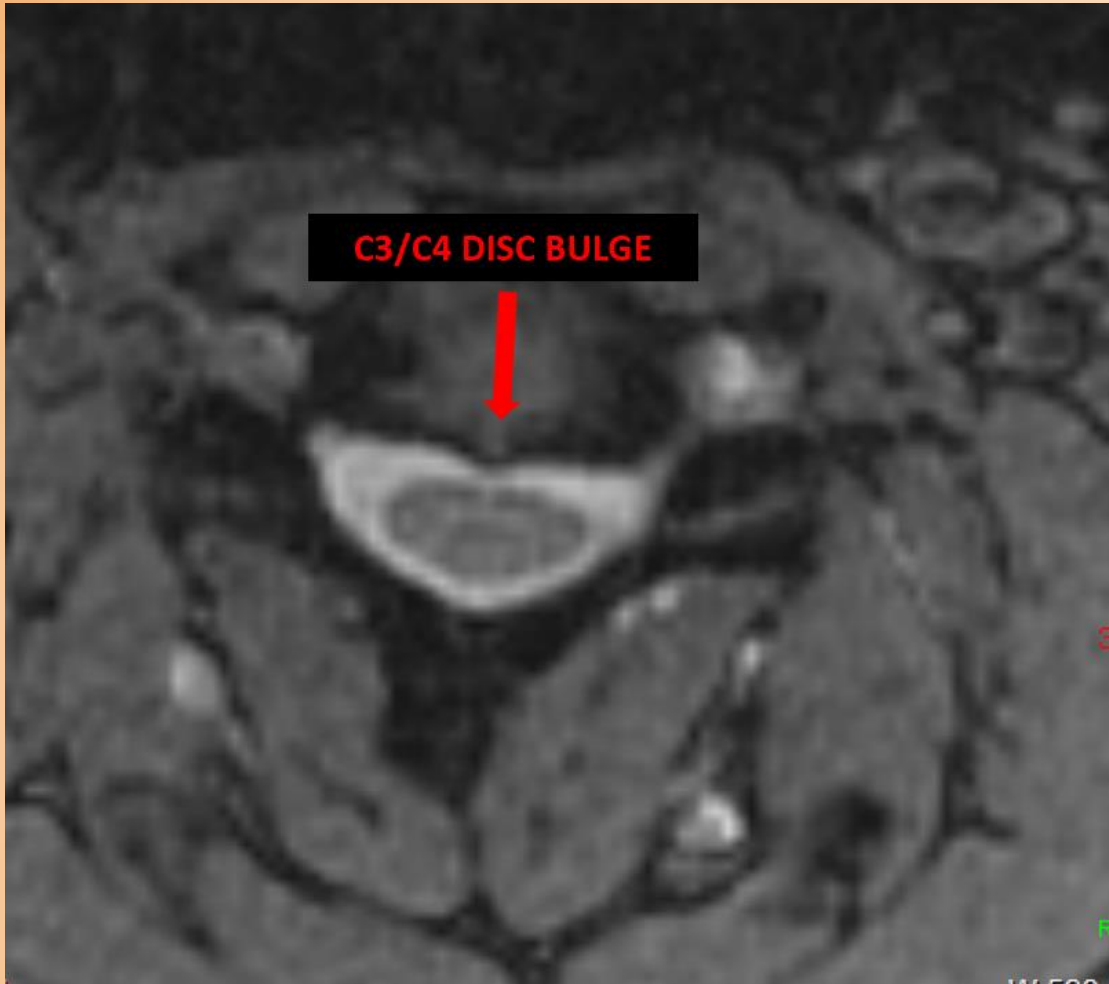
**John Doe**

**MRI Cervical Spine T2 Axial view**

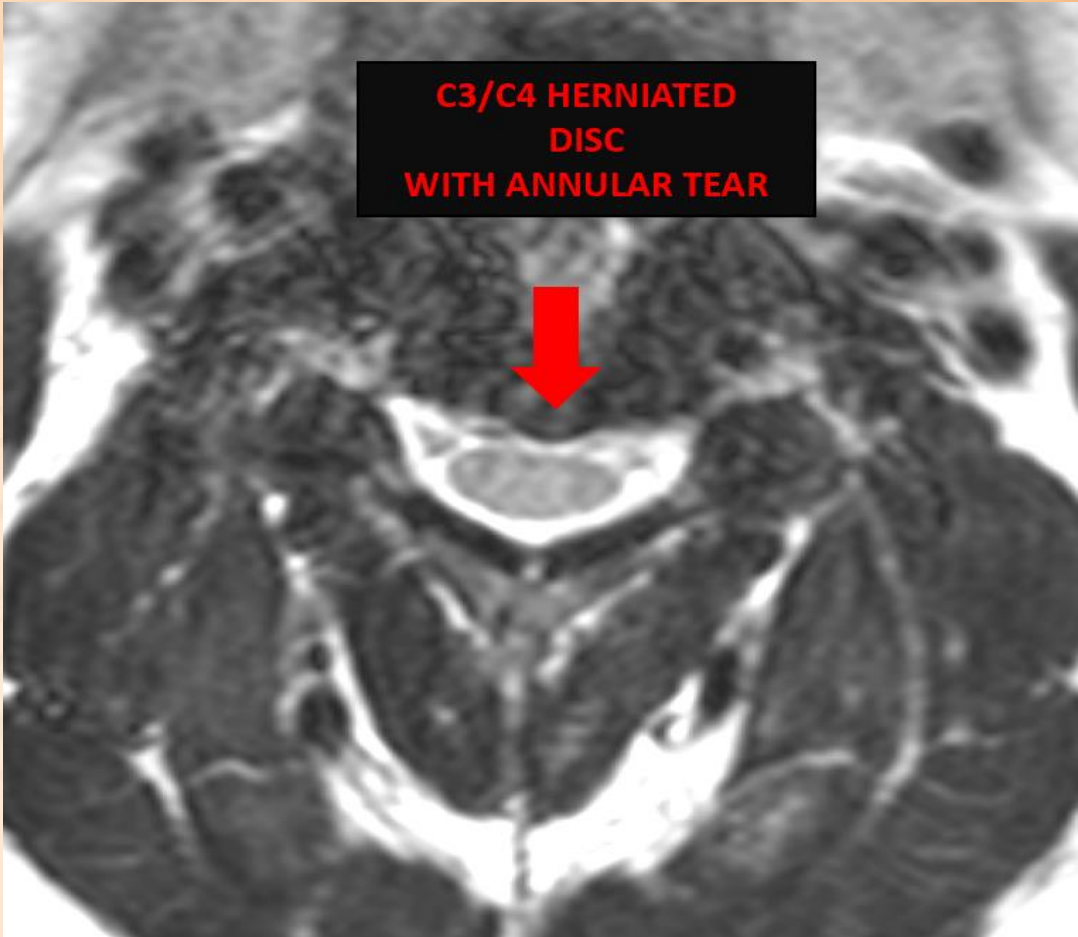
**DOI: 10/07/2016 1<sup>st</sup> Accident**

**DOI: 12/13/2018 2<sup>nd</sup> Accident**

Sample Deposition  
Presentation



DOS: 12/03/2016



DOS: 04/15/2019

Now patient has an annular tear and a herniation instead of bulge

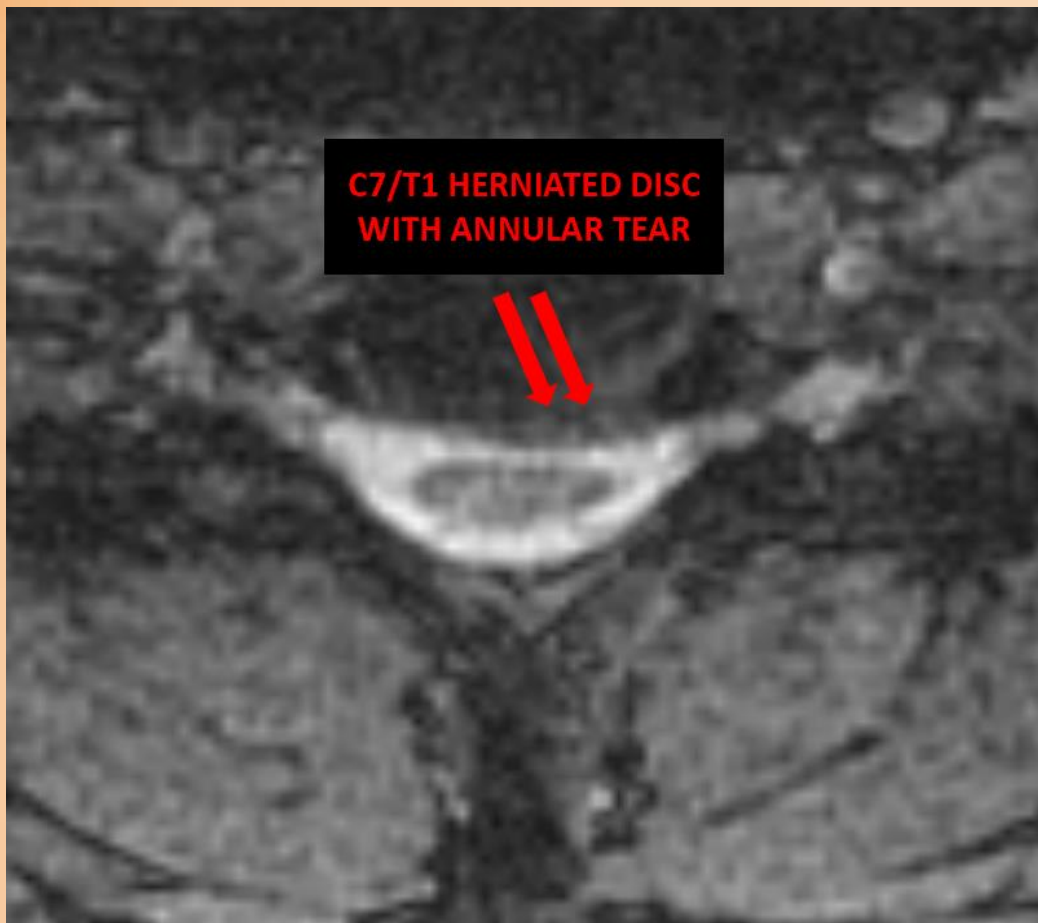
**MRI COMPARISON**

**John Doe**

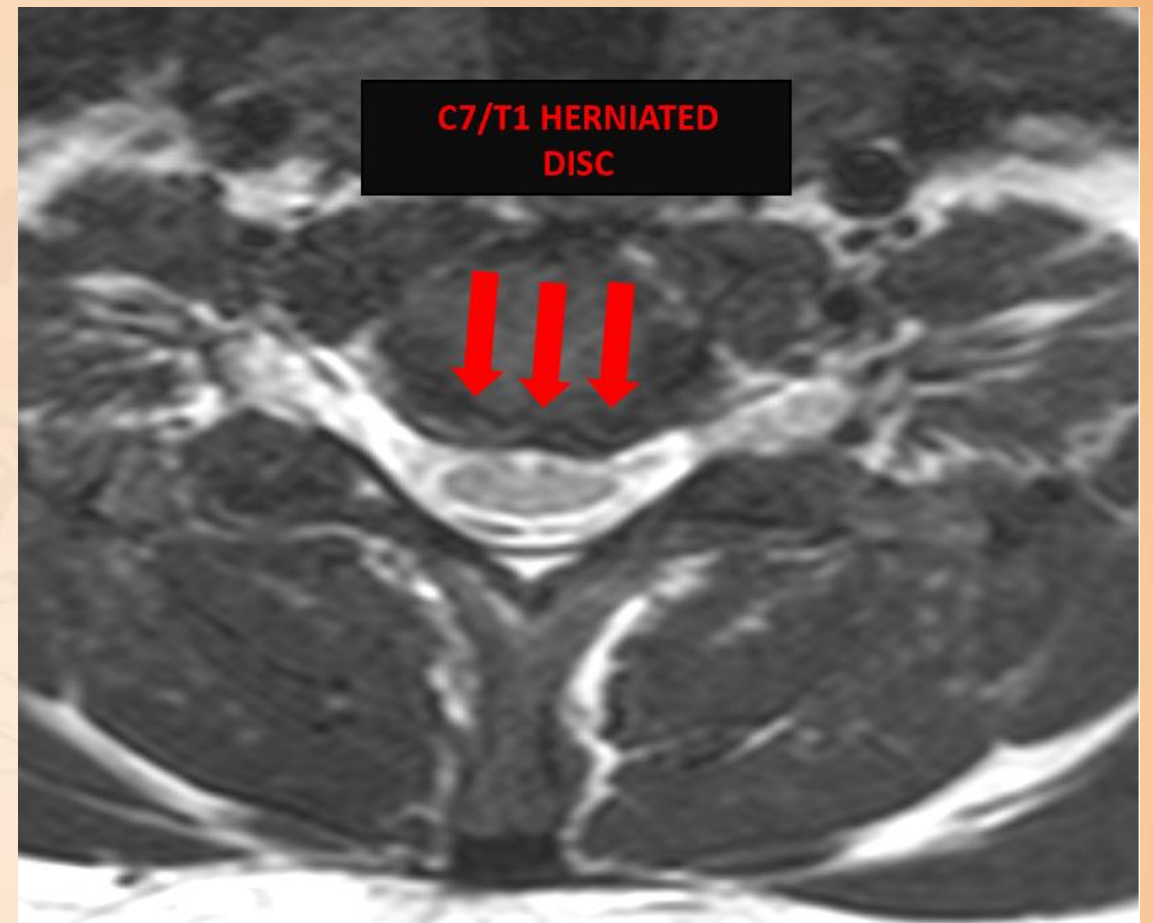
**MRI Cervical Spine T2 Axial view**

**DOI: 10/07/2016 1<sup>st</sup> Accident**

**DOI: 12/13/2018 2<sup>nd</sup> Accident**



DOS: 12/03/2016



DOS: 04/15/2019

### MRI COMPARISON

John Doe

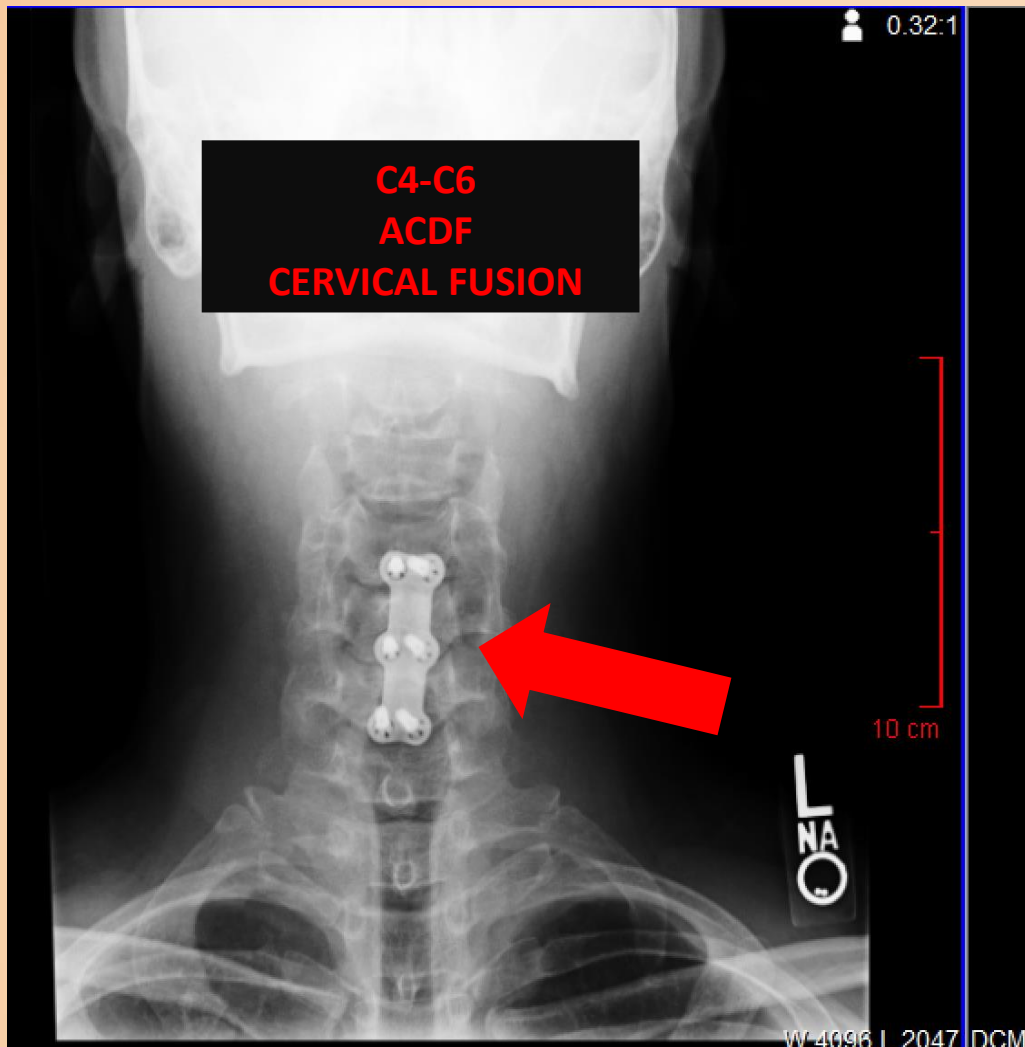
MRI Cervical Spine T2 Axial view

DOI: 10/07/2016 1<sup>st</sup> Accident

DOI: 12/13/2018 2<sup>nd</sup> Accident

C7/T1 disc herniation is bigger and now has 2 portions instead of 1

Sample Deposition  
Presentation



**X-rays Cervical Spine AP/Lateral views**

**John Doe**

**DOI: 10/07/2016 1<sup>st</sup> Accident**

**DOI: 12/13/2018 2<sup>nd</sup> Accident**

Sample Deposition  
Presentation



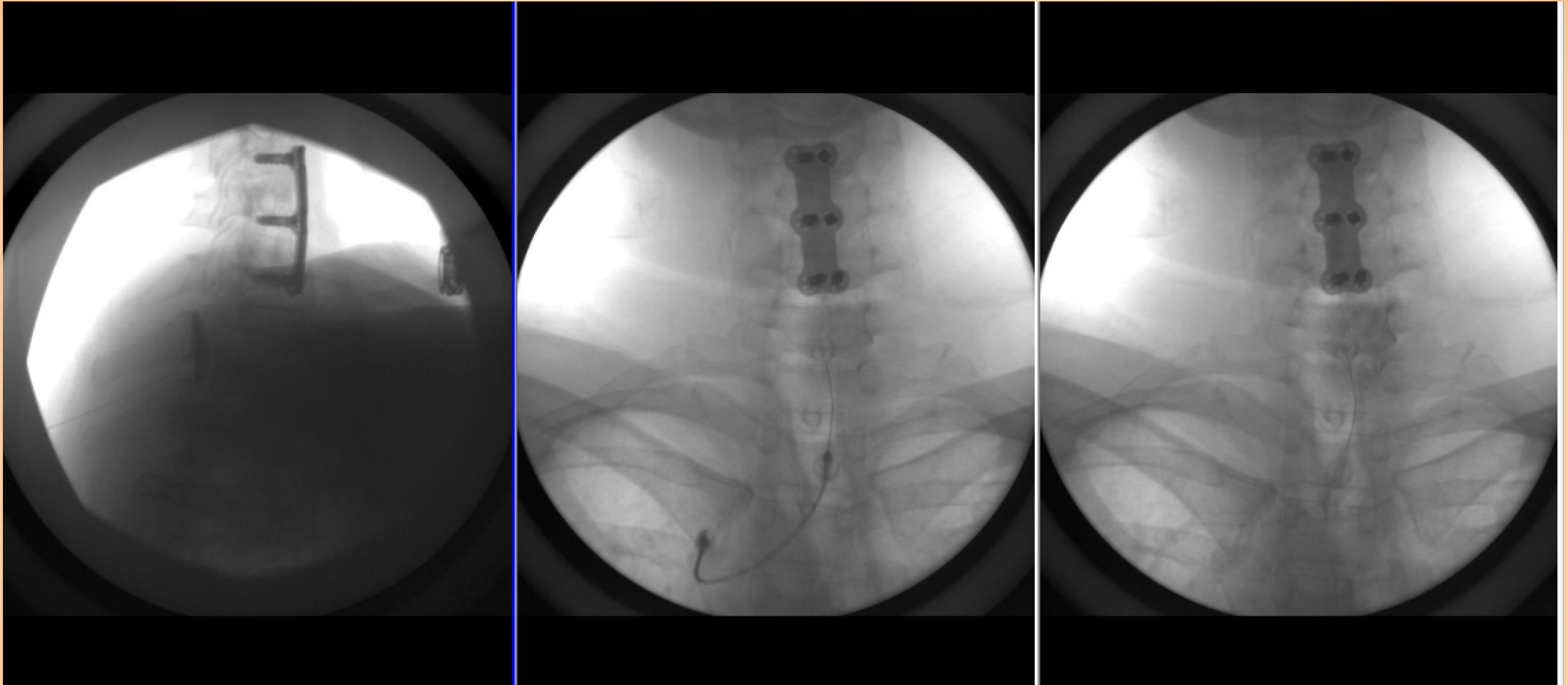
**John Doe**

**DOI: 10/07/2016 1<sup>st</sup> motor vehicle accident**

**DOI: 12/13/2018 2<sup>nd</sup> motor vehicle accident**

**Intra-Operative Fluoroscopy Left C3/C4 ESI 0% pain relief**

Sample Deposition  
Presentation



**Intra-Operative Fluoroscopy Right C7/T1 ESI 0% pain relief**

**John Doe**

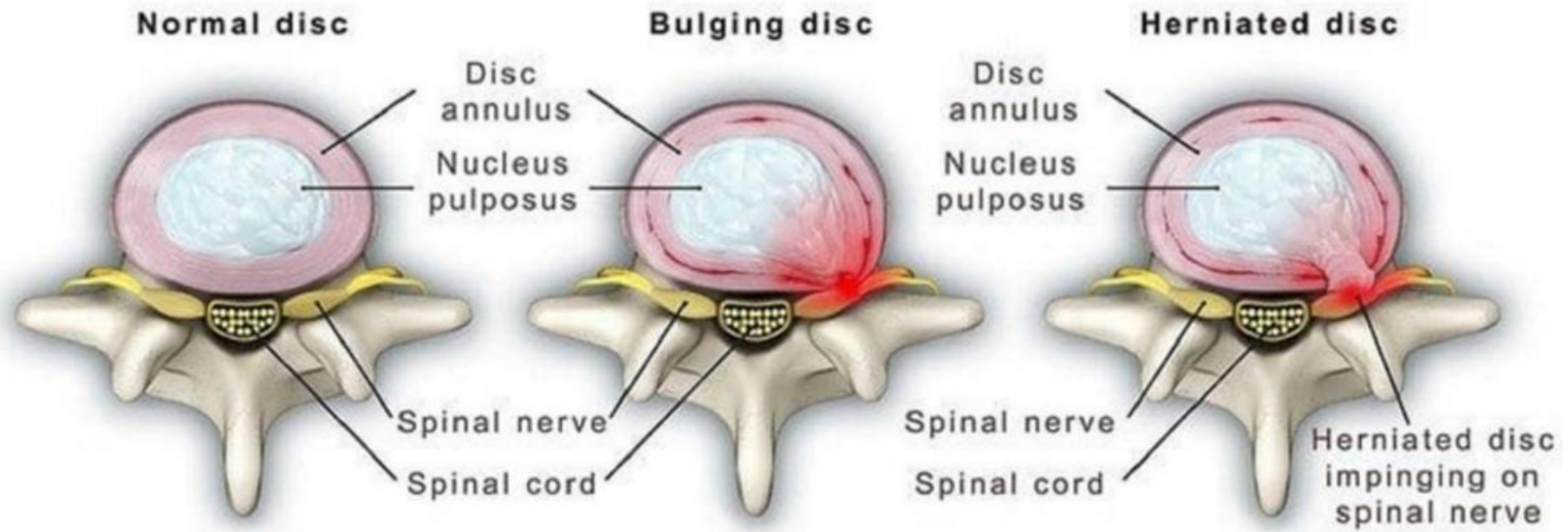
**DOI: 10/07/2016 1<sup>st</sup> motor vehicle accident**

**DOI: 12/13/2018 2<sup>nd</sup> motor vehicle accident**

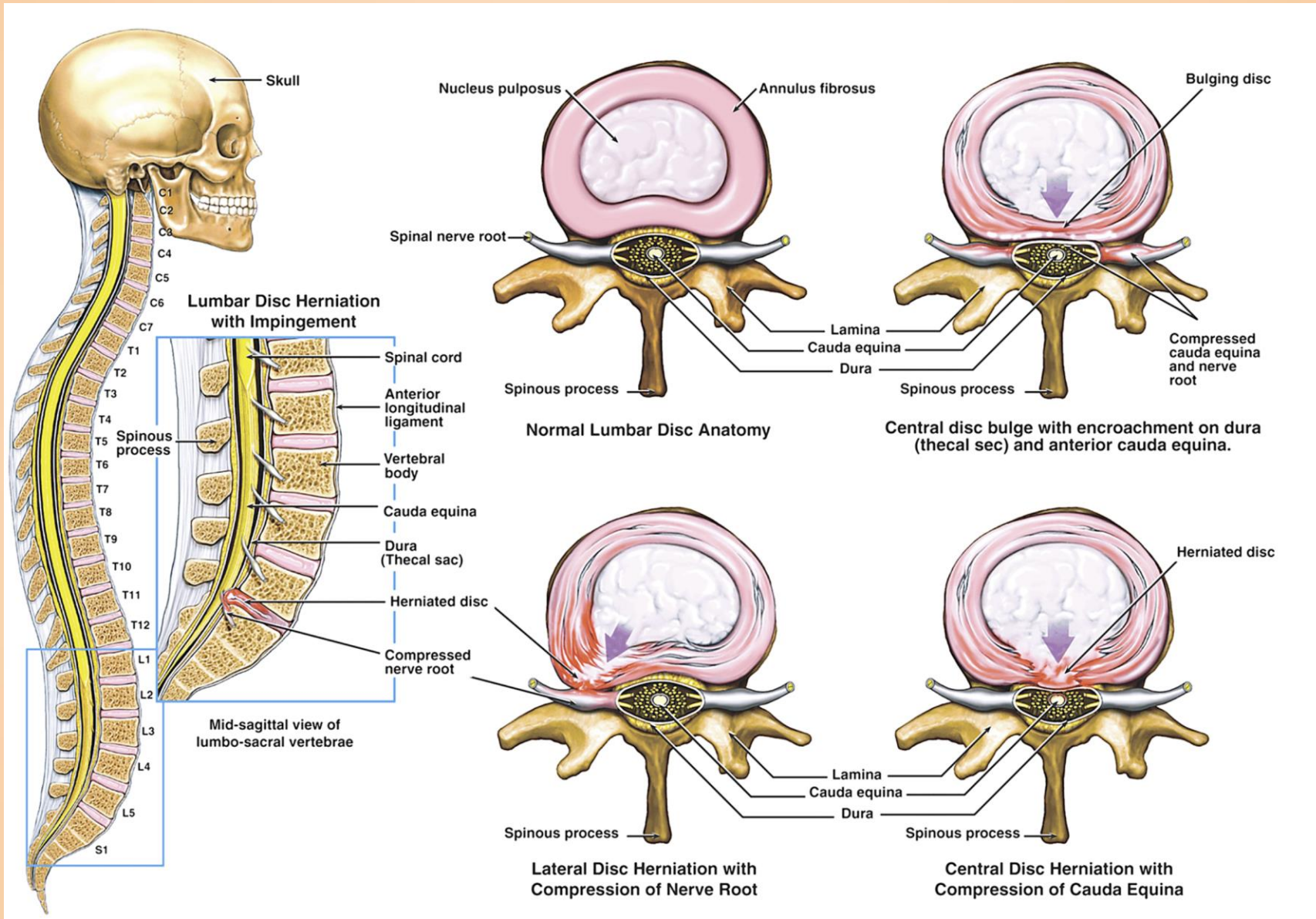
**Intra-Operative Fluoroscopy Left C3/C4 ESI 0% pain relief**

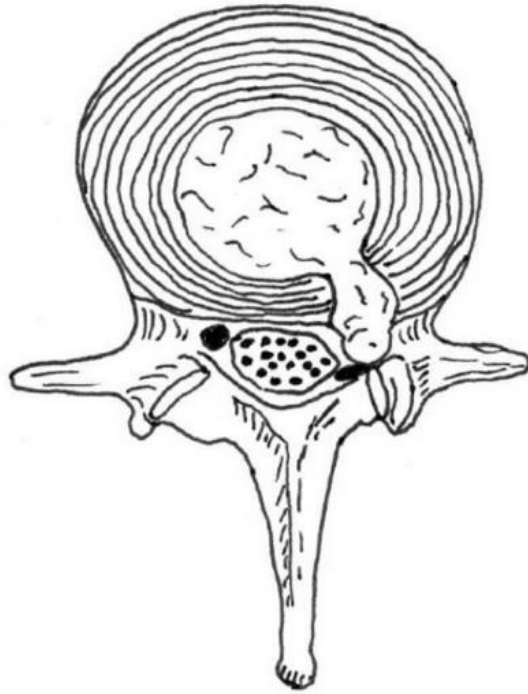
Sample Deposition  
Presentation



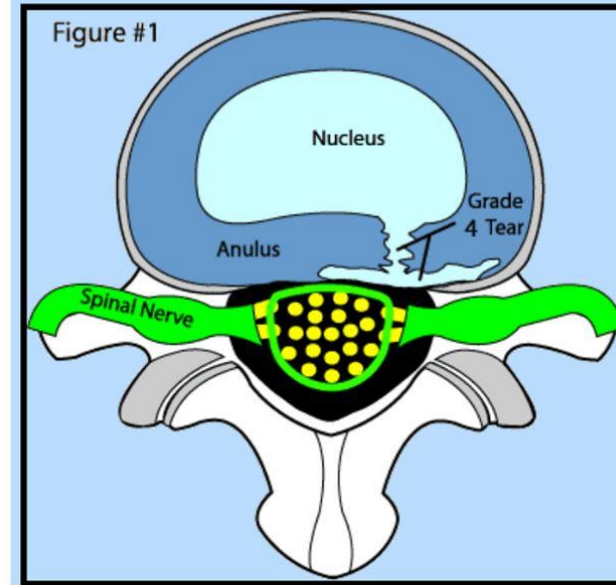


**Above is an illustration showing the difference between a normal disc, a bulging disc, and a herniated disc**

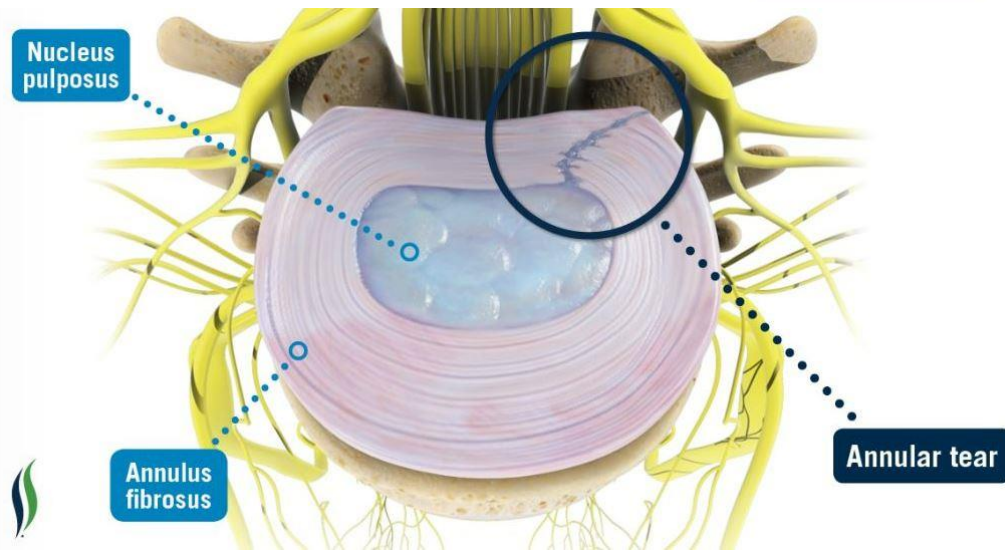


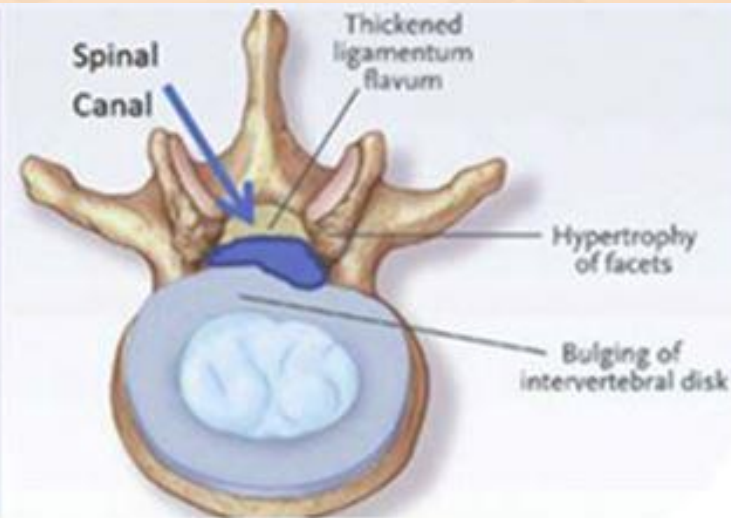
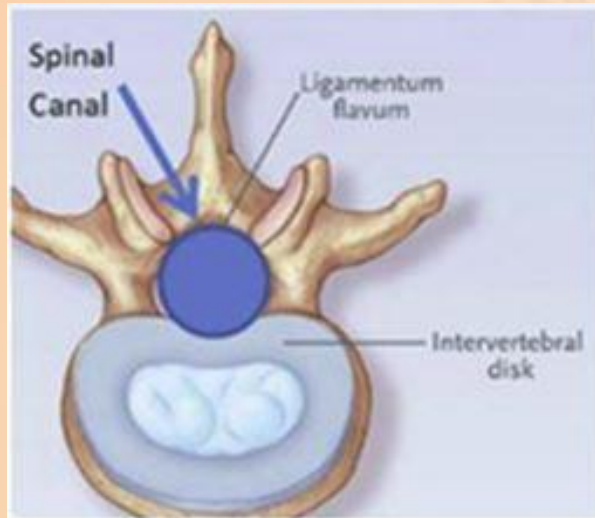


### HIZ: High Intensity Zone



This is an illustration of an annular tear/High intensity zone "HIZ" from a clinical website



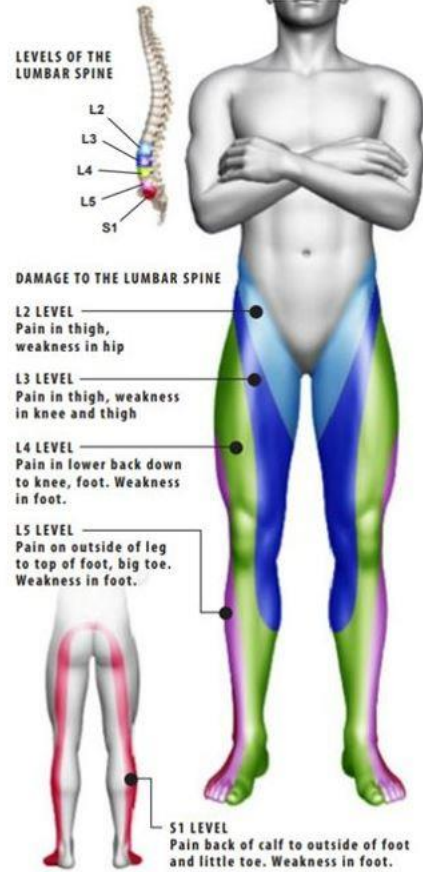


**Left** – Normal spine with wide open spinal canal.

**Right** – Narrowing of the spinal canal

**Illustration of spinal stenosis above**

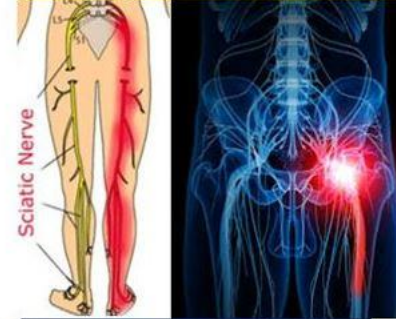
Lumbar Radiculopathy (Sciatica)



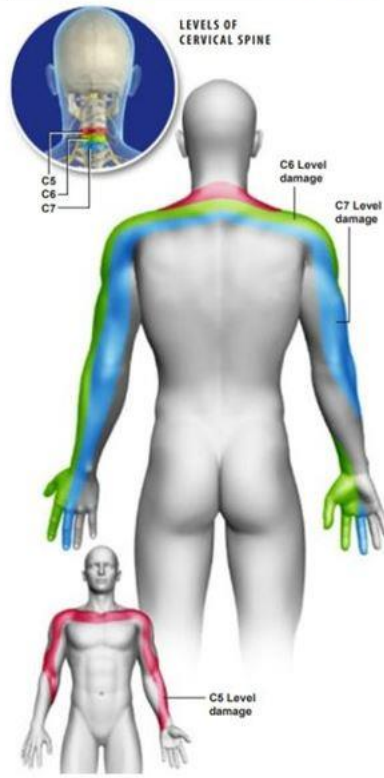
**Numbness and Tingling:** (Numbness is a partial or total lack of sensation in a part of the body and is a symptom of nerve damage or dysfunction. This essentially means that the patient has a nerve in the leg (or arm) that is getting irritated or damaged and causing pain or an unpleasant sensation)

**Radiculitis** is inflammation, irritation or damage to a nerve in the spine. It is commonly caused by conditions in the spine such as a herniated disc (see below), or stenosis (narrowing) of the spinal canal. Lumbar **Radiculitis** (also called Radiculopathy or "**Sciatica**") is damage to nerves in the Low Back.

The Illustration to the left shows Lumbar Radiculitis/Sciatica symptoms. The patient typically has pain/numbness in a particular pattern down the leg depending on the nerve is damaged in the Low Back. Damage to the L2 and L3 nerve causes pain/numbness and weakness in the thigh. Damage to the L4, L5 and S1 nerves sends pain and numbness to the leg and foot. Below is a normal Lumbar (Low Back) Disc next to a Herniated Disc.



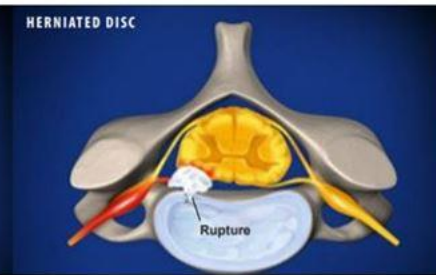
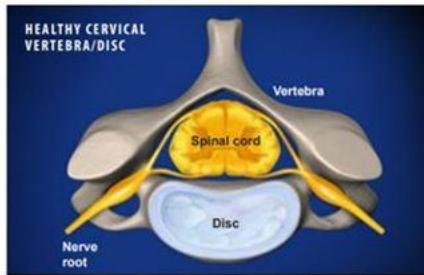
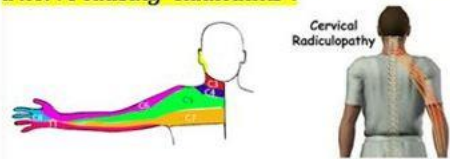
Cervical Radiculopathy



**Numbness and tingling:** (Numbness is a partial or total lack of sensation in a part of the body and is a symptom of nerve damage or dysfunction. This essentially means that the patient has a nerve in the arm or leg that is getting irritated or damaged and causing pain or an unpleasant sensation).

**Radiculitis** is inflammation, irritation or damage to a nerve in the spine. It is commonly caused by conditions in the spine such as a herniated disc (see below), or stenosis (narrowing) of the spinal canal. Cervical Radiculitis (also called Radiculopathy) is damage to nerves in the neck.

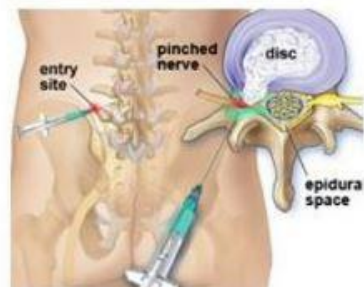
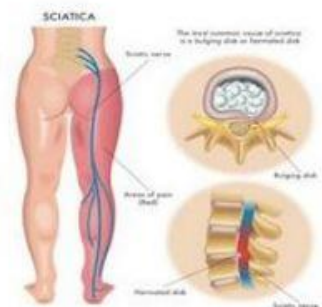
The illustration to the left shows Radiculitis symptoms. The patient typically has pain/numbness in a particular pattern down the arm depending on which nerve is damaged in the Neck. Damage to the C5 nerve sends pain/numbness to the shoulder and upper arm. Damage to C6 nerve sends pain/numbness into the thumb and index finger. Damage to the C7 nerve sends pain and numbness to the middle finger and damage to the C8 nerve sends pain to the small finger. Below is a normal cervical disc next to a Herniated Disc which is pushing on a nerve causing "Radiculitis".



## Epidural Steroid Injection (ESI)

An **Epidural Steroid Injection (ESI)** is a minimally invasive procedure performed to help relief pain in the cervical, thoracic or lumbar spine. It treats conditions such as Herniated Discs, Spinal Stenosis and Radiculopathy (pinched nerves), and Discogenic Pain/Annular Tears.

**Preparation:** In preparation for the procedure, the patient is then taken to the operating room and placed face down. The physician injects local anesthetic which numbs the skin and tissue around the level(s) that will be injected.



### Inserting the Needle:

Next the physician pushes a 3" to 5" **Spinal Needle** through the numbed tissue and uses a rotating X-Ray device called a **Fluoroscope** to see the needle in your body. The needle is



carefully pushed into the epidural space (the area surrounding the spinal cord) and dye is injected to confirm the needle is positioned correctly.

### EPIDURAL STEPS



1. Area Identified    2. Skin Numbed    3. Needle placed    4. Medicine Injected

**ESI RISKS: Infection, Allergic Reaction, Bleeding, Stroke, Nerve Damage, Spinal Cord Injury**

**Injection:** When the needle is in place, the physician injects a steroid-anesthetic mix in to the epidural space bathing the painful area with soothing medication to reduce inflammation and pain.

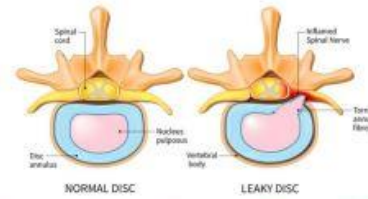
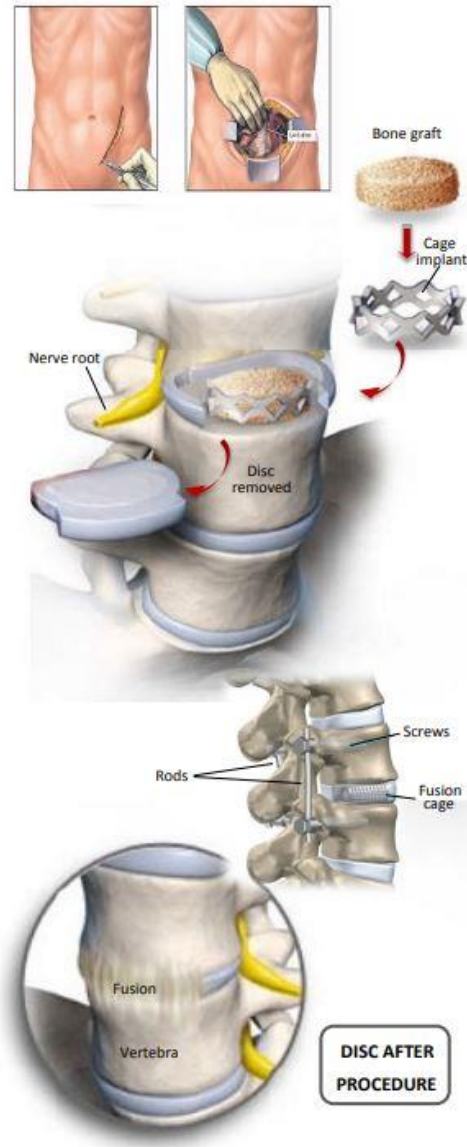


Dr. Pollydore performing a Cervical Epidural



**End of Procedure:** Needle is removed and a bandage is place over the injection site. Extended pain relief could start within 3 to 5 days after the procedure. Often a 2<sup>nd</sup> or 3<sup>rd</sup> procedure is necessary to get the full benefit of the medication.

## Anterior Lumbar Interbody Fusion (ALIF)



**Anterior Lumbar Interbody Fusion (ALIF)** is generally used to treat discogenic low back pain. The surgeon will stabilize the spine by fusing vertebrae together with bone graft material.

The procedure is performed through a three to five inch incision on the stomach. Two common approaches are over the center of the stomach or slightly to the side.

The damaged disc is partially removed. Some of the disc wall is left behind to help contain the bone graft material.

A metal cage implant filled with bone graft is placed in the empty disc space. This realigns the vertebral bones, lifting pressure from pinched nerve roots.

In some patients, this will be enough to secure the vertebrae. For others, the surgeon may need to implant a series of screws and rods along the back of the spine for additional support.

Over time, the bone graft will grow through and around the implants, forming a bone bridge that connects the vertebra above and below. This solid bone bridge is called a fusion.



# C6-7 Anterior Cervical Discectomy and Fusion with Synthes Plate

## PRE-OPERATIVE CONDITION

