

# Relief For Painful Back Problems: Treating Degenerative Spine Conditions

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# Robert Harper, MD

- Orthopedic Spine Surgeon
- Board Certified by AAOs
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- Medical School: University of Missouri
- Residency: University of California-Davis
- Fellowship: Stanford University



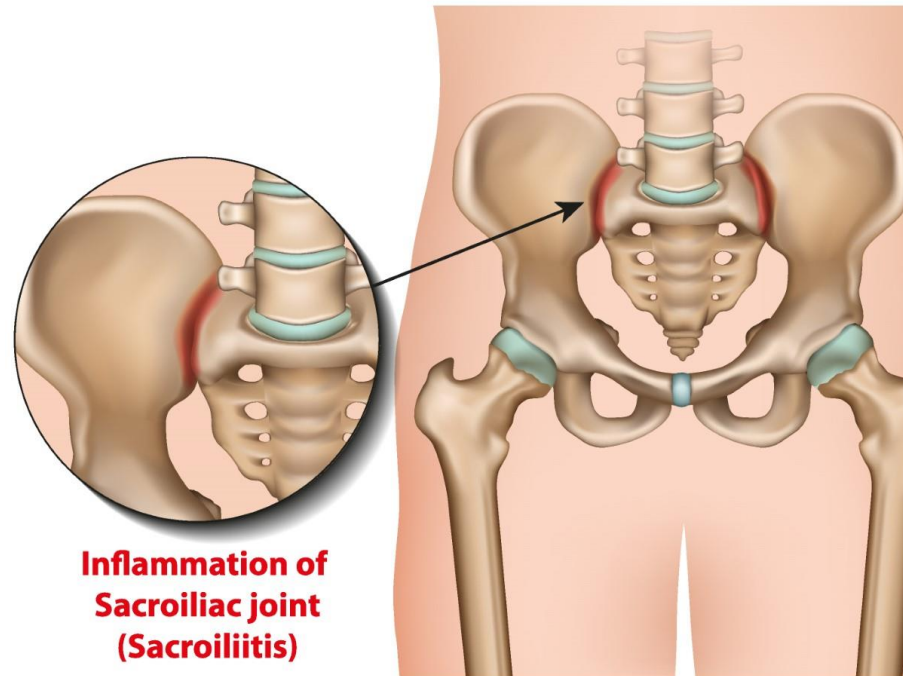
# Low Back Pain

- Very common condition
- Affects most people at some stage
- Many causes: arthritis, disc degeneration, infection, muscle strain, SI joint pathology, fracture, spondylolysis

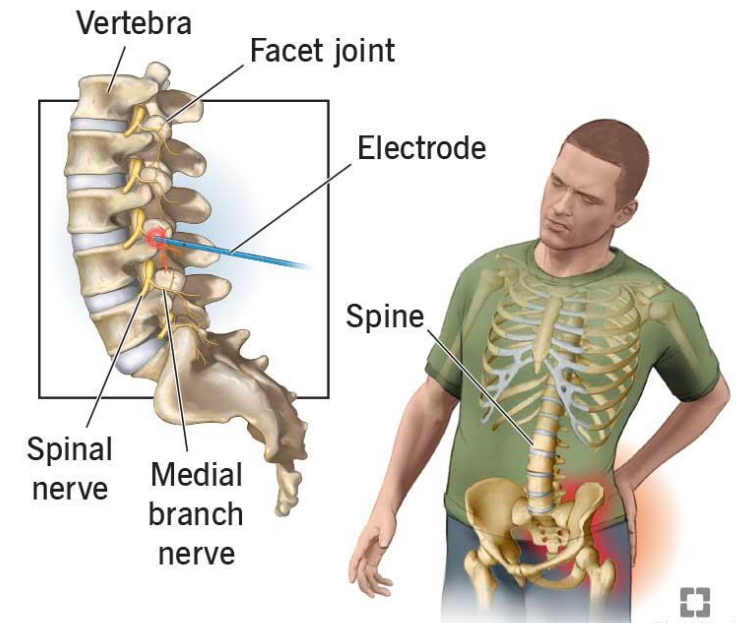


## Treatments:

- Ice, heat, physical therapy, cognitive behavioral therapy, NSAIDs, Tylenol, injections, ablation
- Surgery in the rare cases of instability, SI joint dysfunction



## Radiofrequency Ablation (RFA) *for Pain Management*

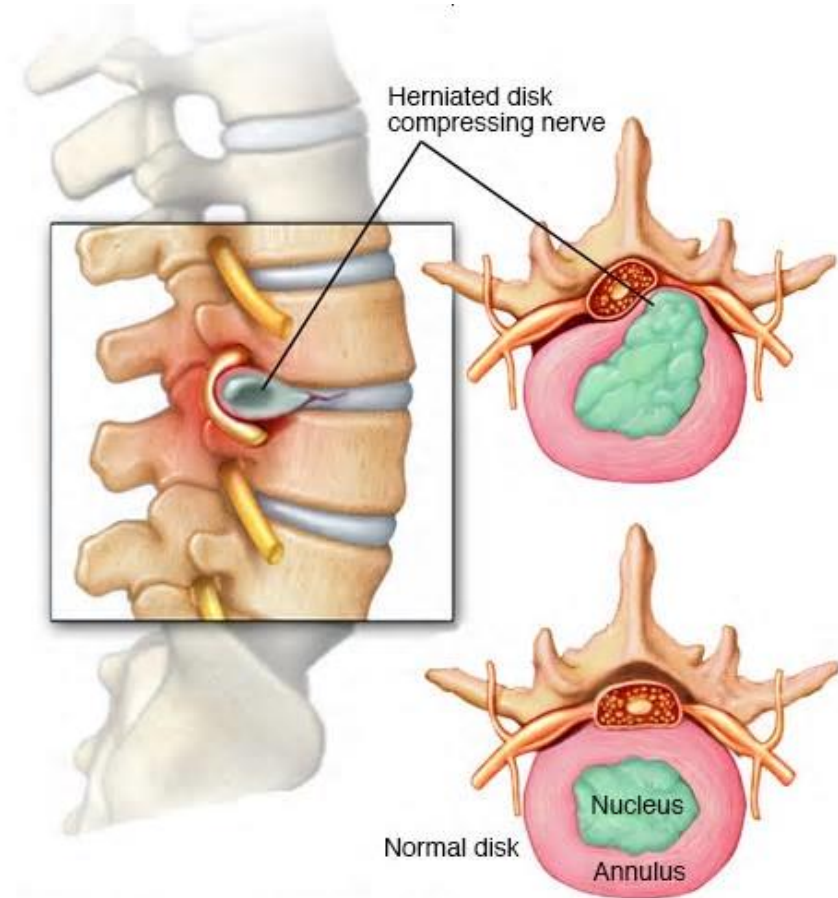


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# Herniated Disc

- Extrusion of disc material into the spinal canal
- Compresses the nerve in the canal or at the exit



# Herniated Disc

- Can occur at any time
- May be associated with particular event (lifting something heavy, squatting), often no specific event recalled

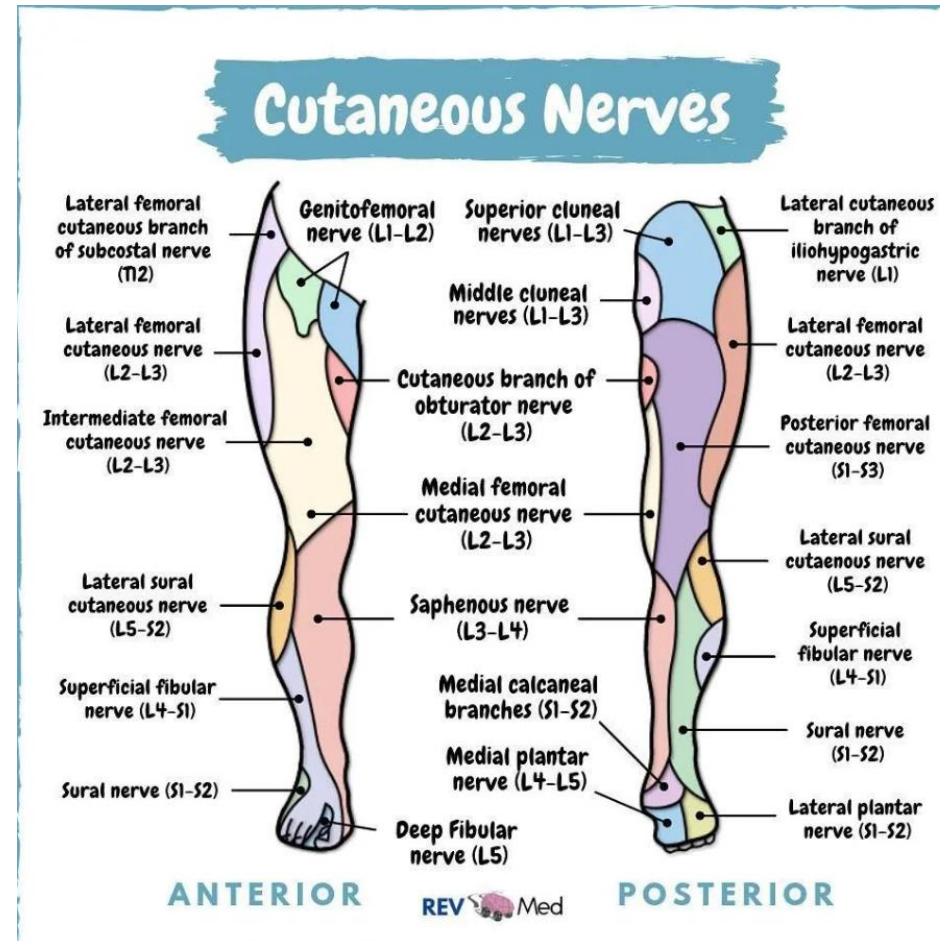
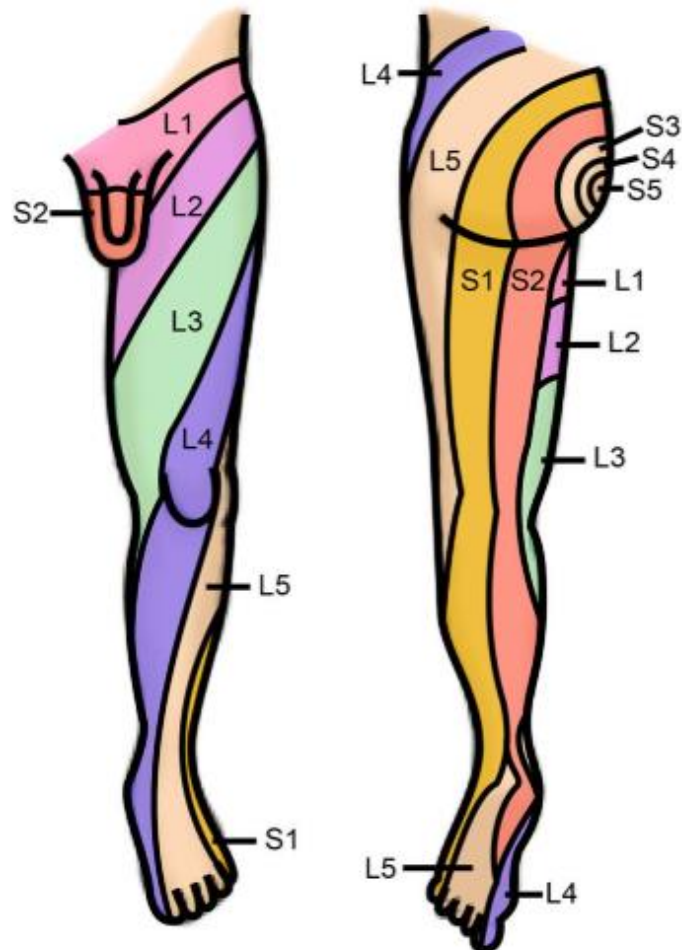
## Symptoms:

- Pain down one leg, numbness, tingling, weakness



# Herniated Disc

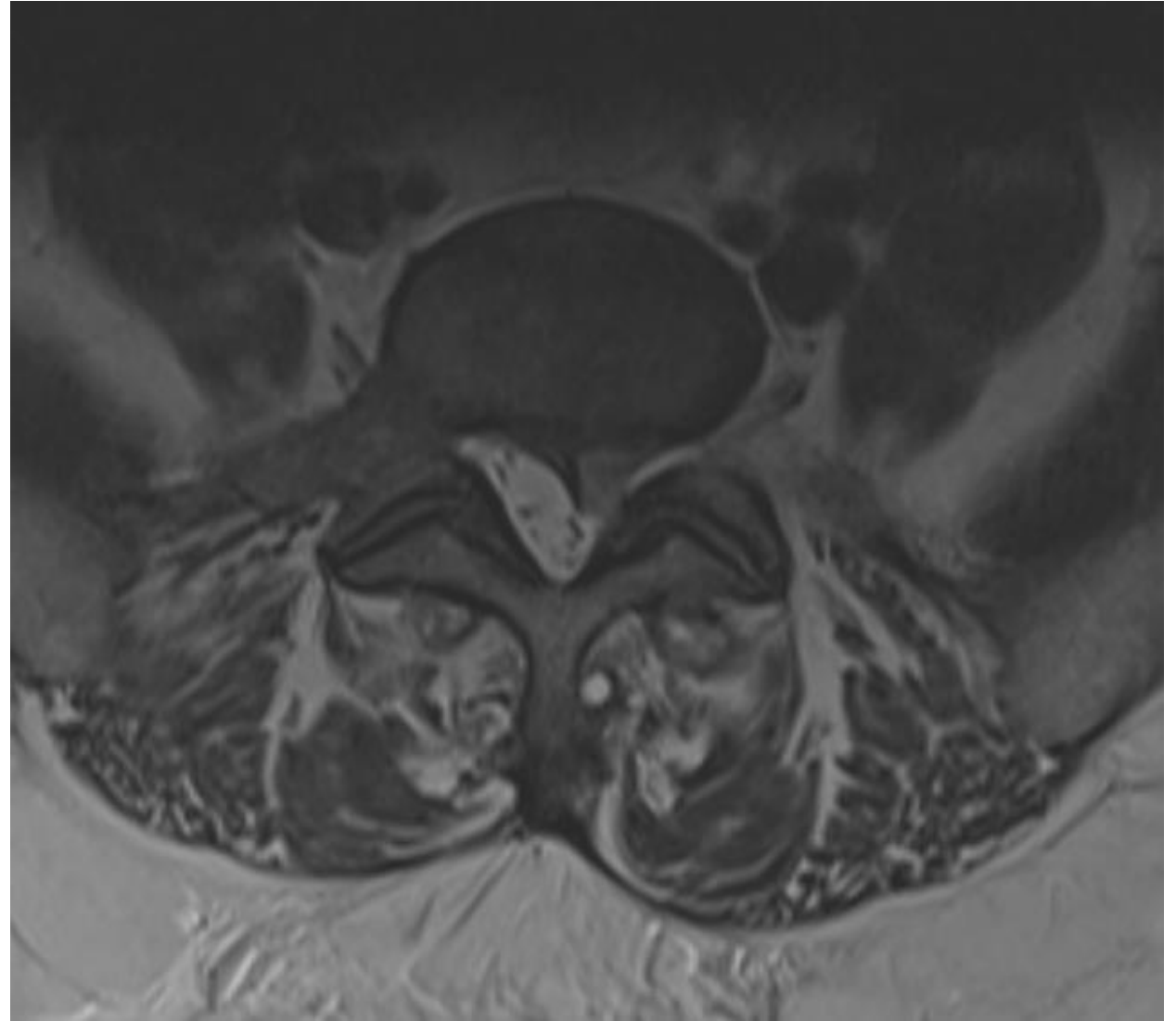
## Lower Extremity Dermatome



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Your Life in Motion

# Herniated Disc

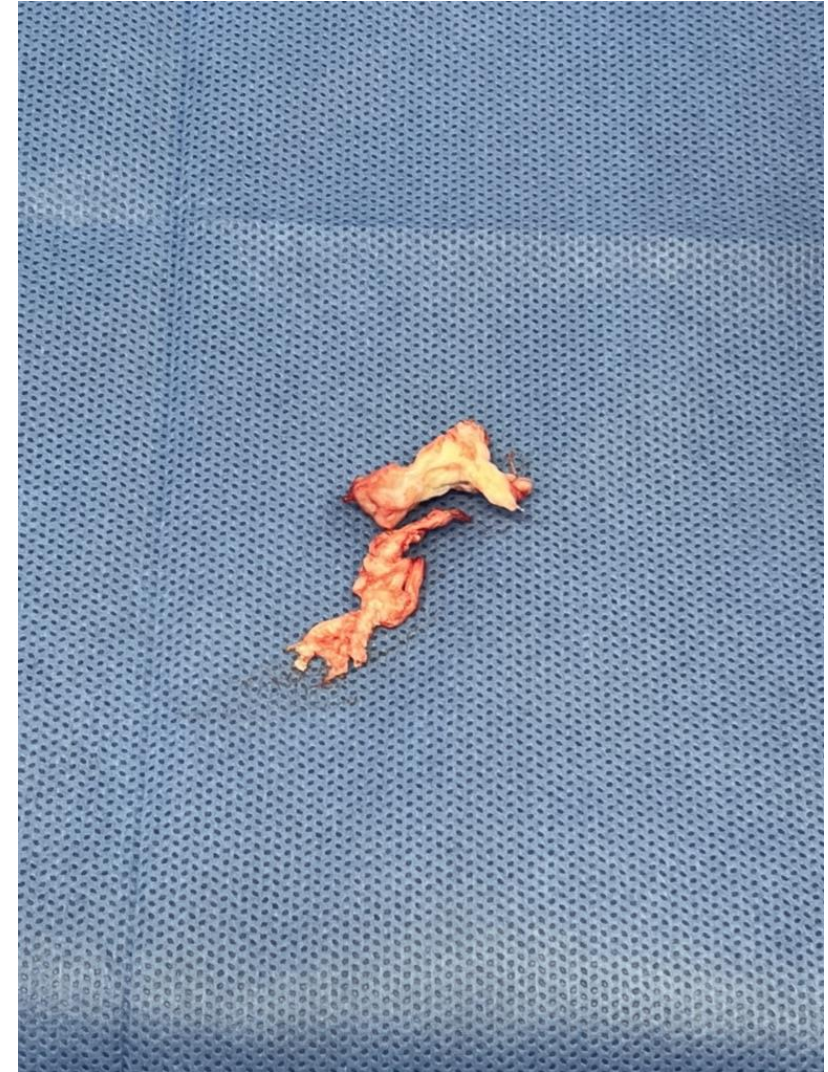
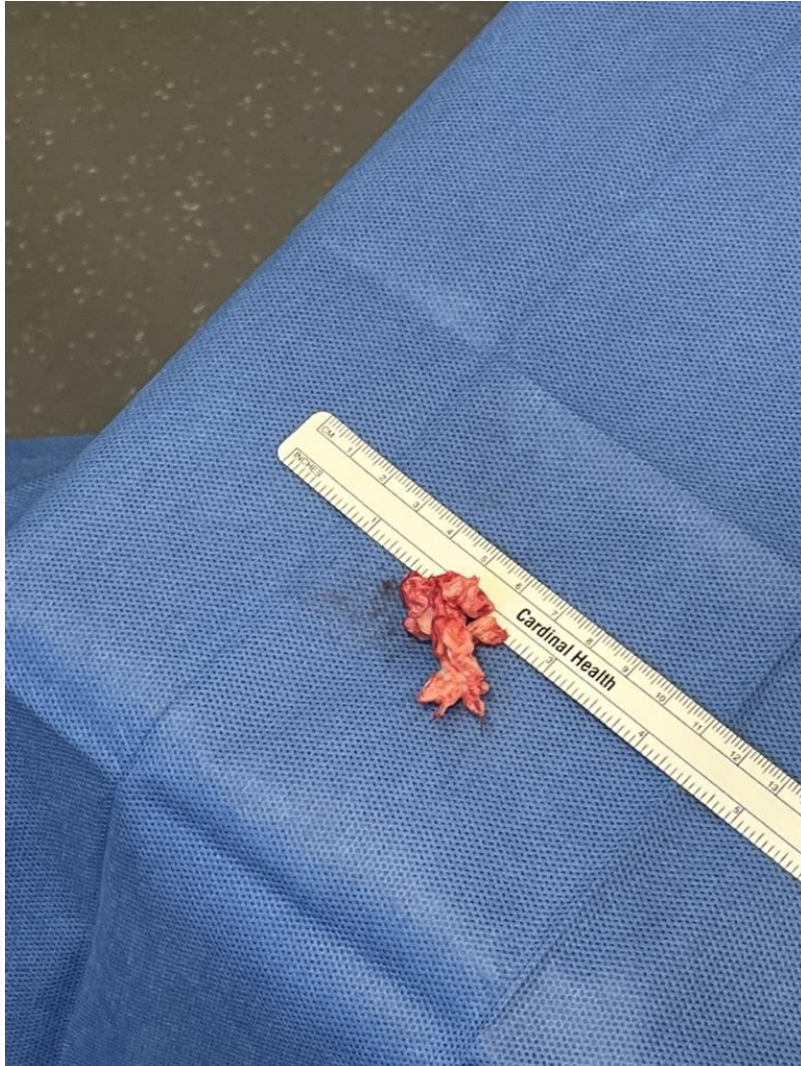




## Treatment:

- NSAIDS, PT, chiropractic, walking
- Epidural steroid injections
- Microdiscectomy Surgery: small window opened in the bone and the dura moved aside, disc fragment is removed





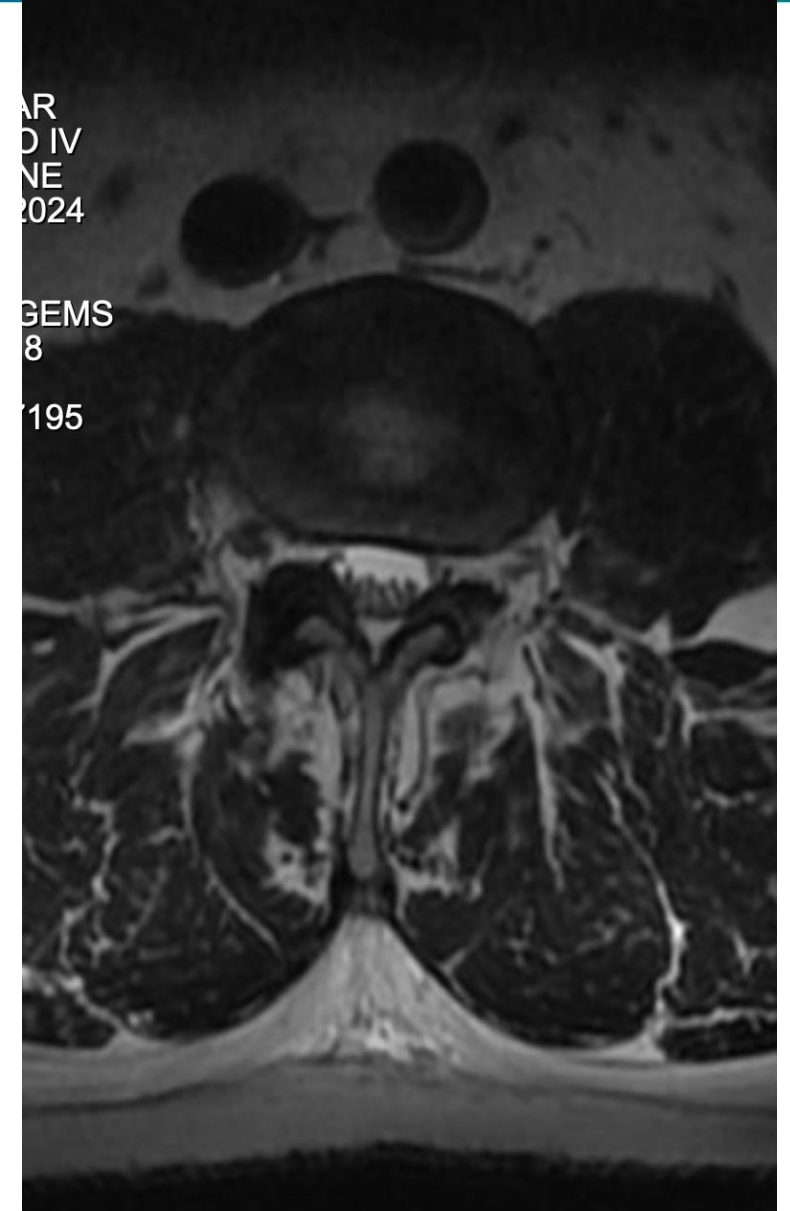
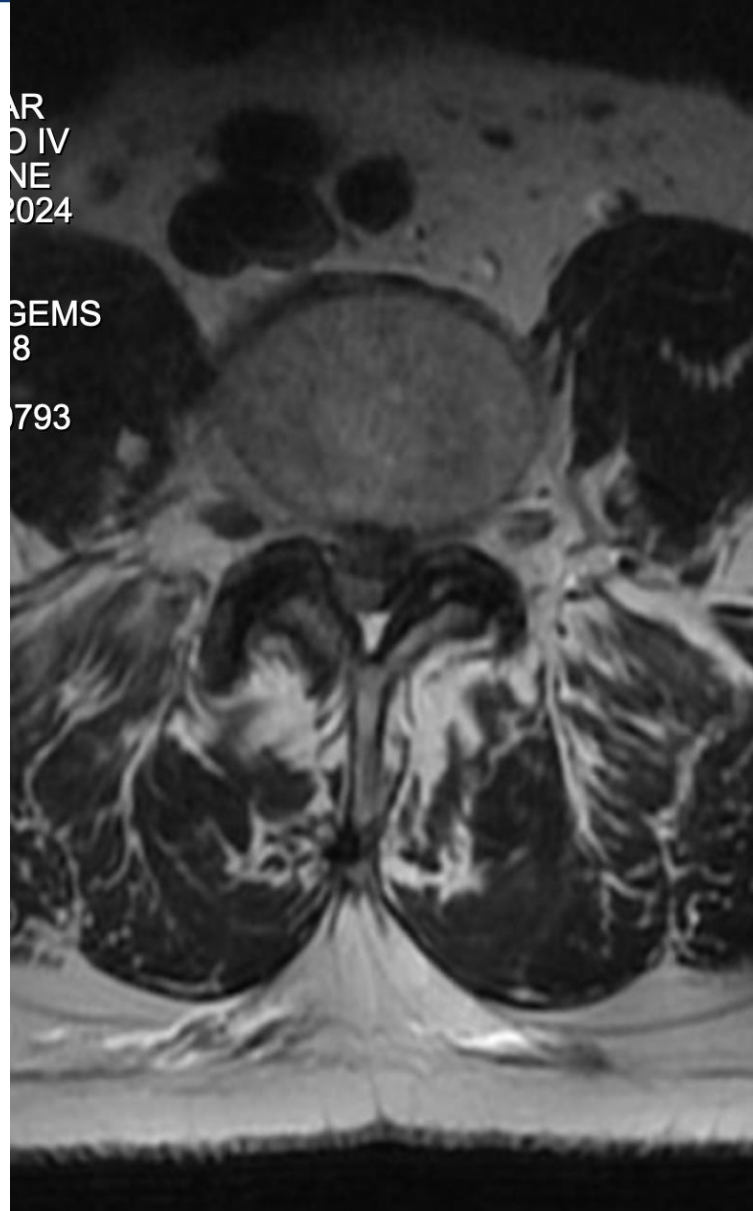


- Narrowing of the lower spinal canal
- Causes pinching of the nerves to the legs

## Symptoms:

- Pain down the legs, numbness, tingling
- Often occurs with walking any distance
- Feels better when sitting down or leaning forward

# Lumbar Stenosis





## Treatment:

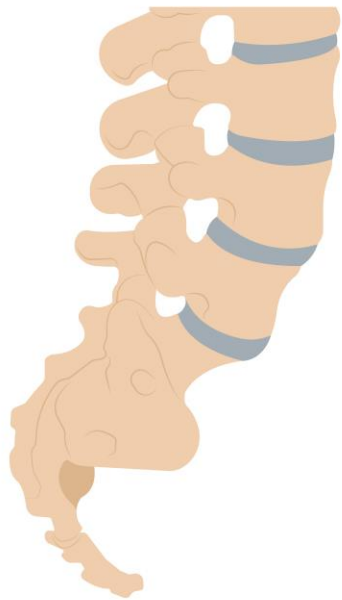
- PT, NSAIDS, epidural steroid injections
- Decompression surgery, decompression and fusion, interbody fusion
- Surgery to restore disc height, open the spine canal

- Narrowing of the lower spinal canal with slippage of vertebral body on another
- Causes pinching of the nerves to the legs
- Causes pinching of the nerves in the canal and often the foramen

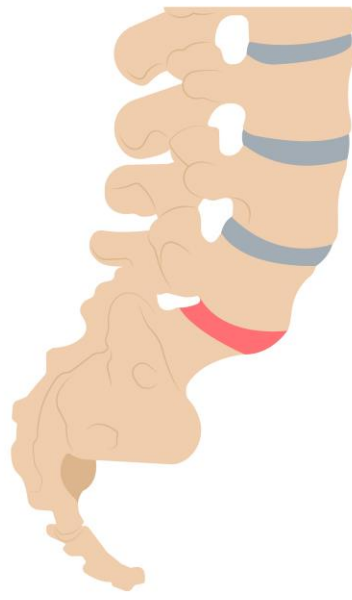
## Symptoms:

- Pain down the legs, numbness, tingling
- Often occurs with walking any distance
- Feels better when sitting down or leaning forward

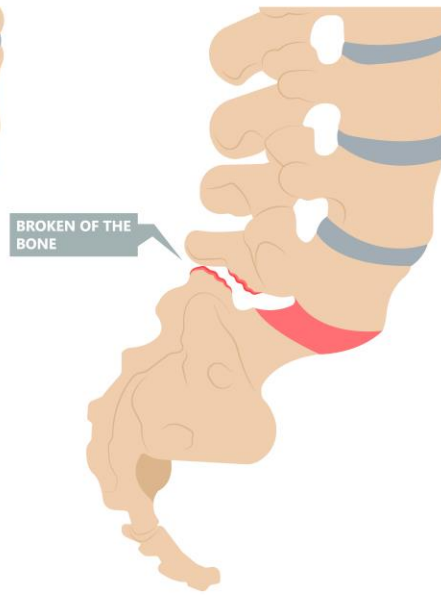
## SPONDYLOLISTHESIS



HEALTHY SPINE



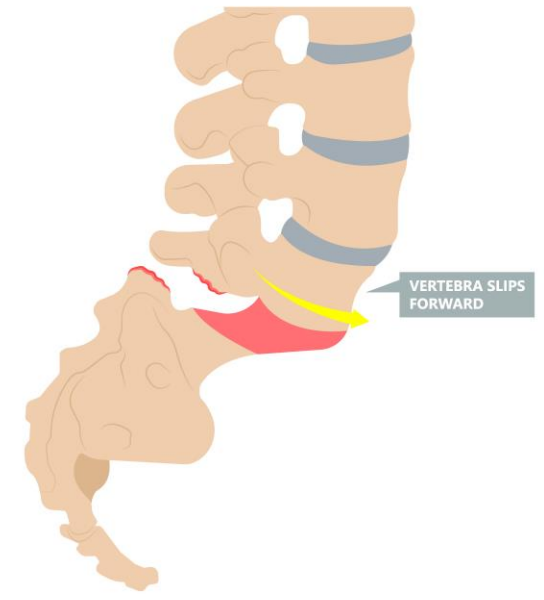
GRADE 1



GRADE 2



GRADE 3



GRADE 4



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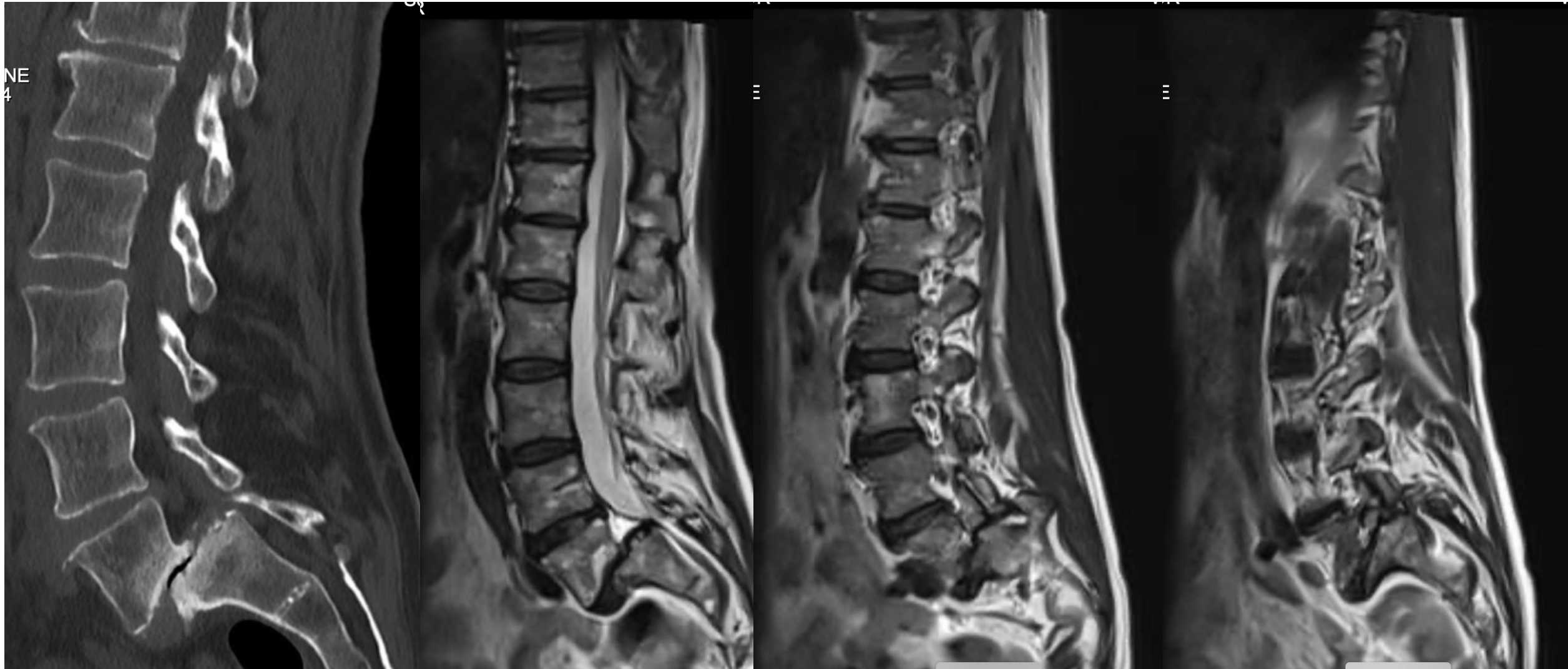
Your Life in Motion

## Treatment:

- PT, NSAIDS, epidural steroid injections
- Decompression surgery, decompression and fusion, interbody fusion
- Surgery to restore disc height, open nerve foramen, open the spine canal



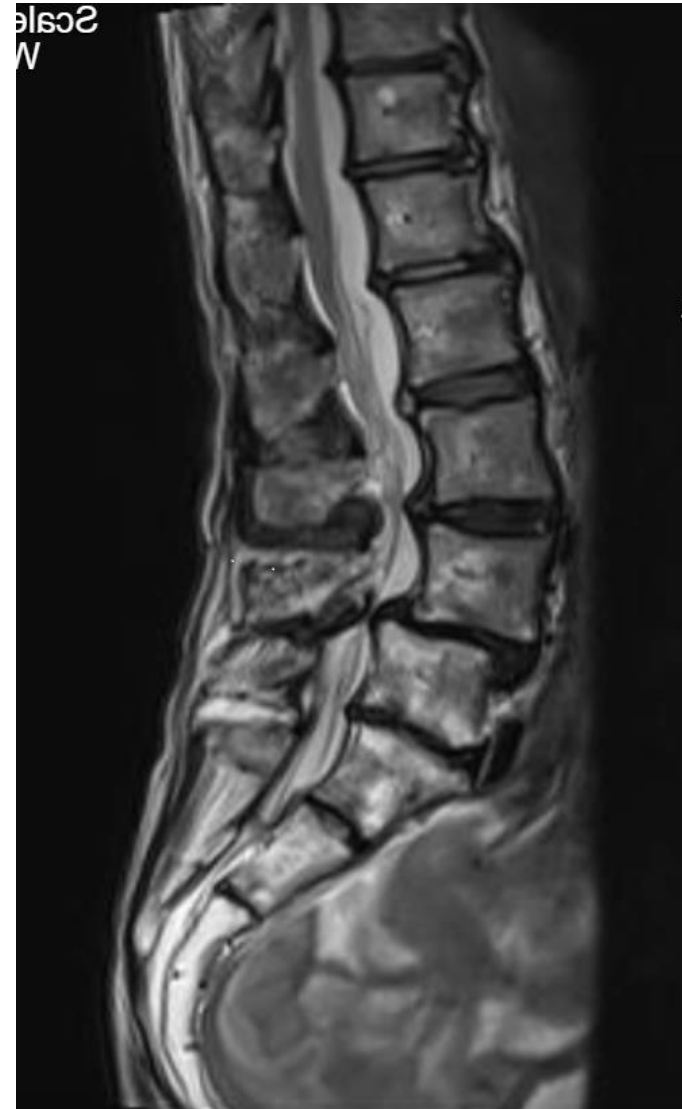
# Lumbar Stenosis/Spondylolisthesis



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# Lumbar Stenosis/Spondylolisthesis





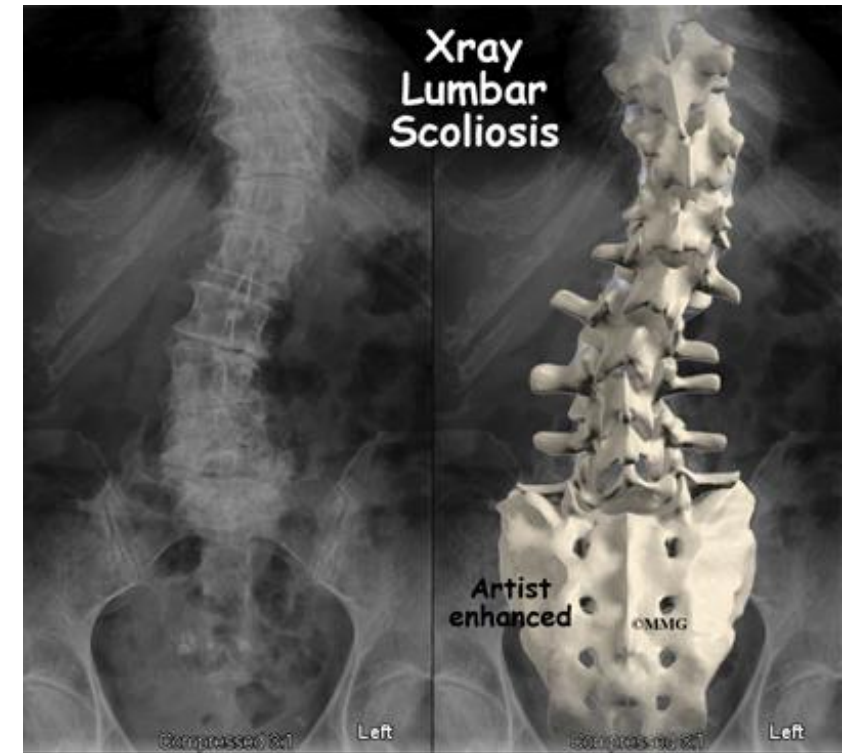


# Adult Degenerative Scoliosis

- Degenerative curvature of the spine, usually lumbar spine
- More common in post-menopausal women
- Occurs due to asymmetric disc degeneration, disc collapse, facet arthritis, vertebral body collapse (from osteoporosis)

## Symptoms:

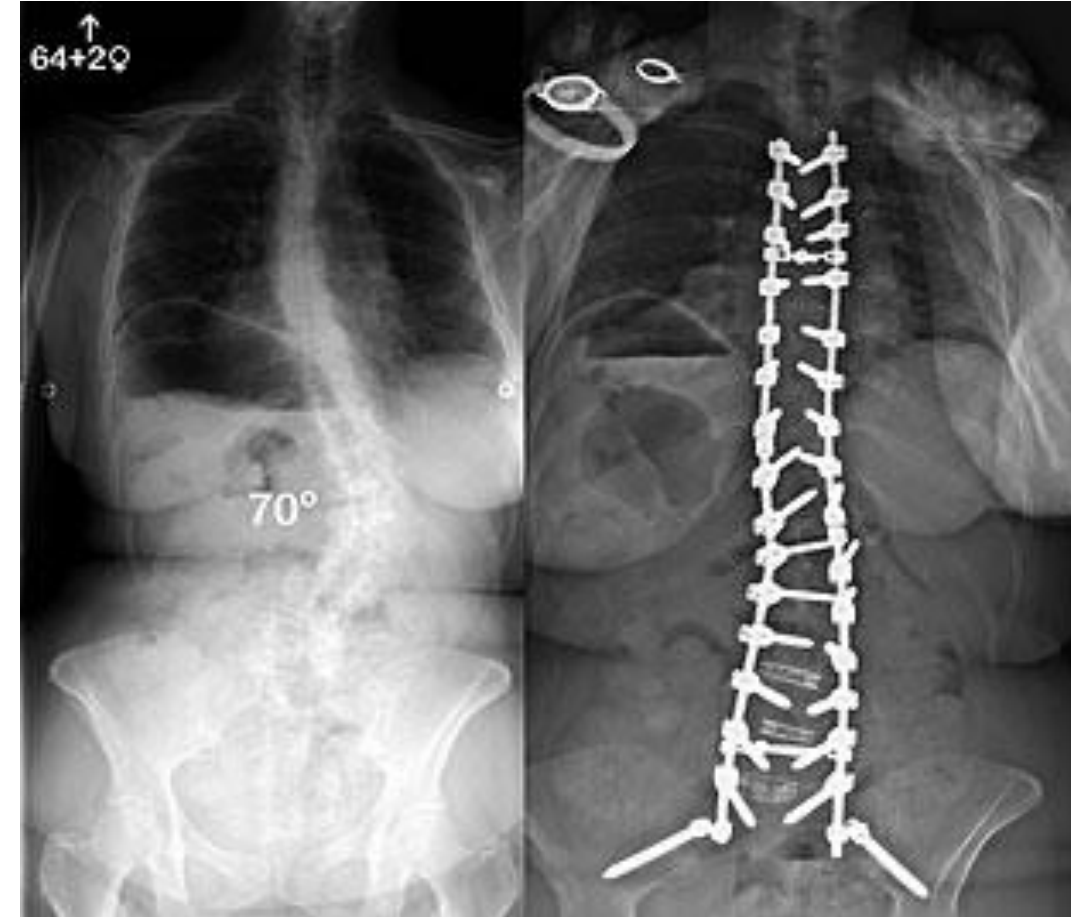
- Feeling of imbalance, leaning forward, severe back pain, severe leg pain/numbness



# Adult Degenerative Scoliosis

## Treatments:

- Conservative: PT, NSAIDS, epidural injections, chiropractic, osteoporosis treatment
- Surgery: depends on the true origin
- Everything from small decompression to large reconstructive surgery
- Surgery designed to restore alignment, improve balance, improve pain



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