

# THE ROLE OF SPINE SURGERY IN SPINE CARE: INDICATIONS FOR SURGERY, TYPES OF SURGERY, IMPLICATIONS

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## INDICATIONS FOR SURGERY

- Failure of conservative treatment
  - Physical therapy, chiropractic treatment
  - Time
  - Injections
- Trauma - unstable fractures
- New neurologic deficit - weakness
- Cauda equina syndrome
  - Bowel/bladder dysfunction
- Intractable pain

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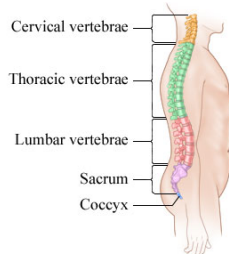
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## TYPES OF SURGERIES

- Based on location of spine
- Decompression/fusion
- Anterior/Posterior
- MIS
- Stabilization



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## TYPES OF SURGERIES

- Cervical
  - Anterior
    - Anterior Cervical Discectomy and Fusion (ACDF)
    - Disc Replacement
  - Posterior
    - Laminectomy
    - Posterior fusion
- Dx: disc herniation, stenosis, trauma, fracture, instability



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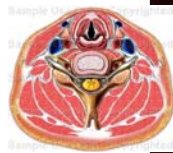
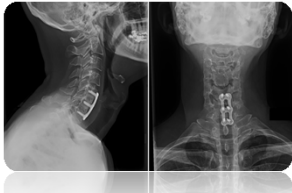
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## TYPES OF SURGERIES

- Anterior
  - Pros
    - Small Incision, fast recovery, MIS
  - Cons
    - Limited exposure, 3 levels or fewer



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## TYPES OF SURGERIES

- Posterior
  - Pros
    - Multiple levels, posterior decompression, reduction of fractures/facets, can be combined with ACDF
  - Cons
    - Longer recovery, muscle spasms, larger incision



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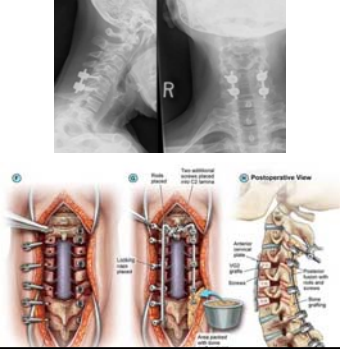
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## TYPES OF SURGERIES



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## TYPES OF SURGERIES

- Thoracic
  - Mostly Posterior
- Dx: Trauma (fractures), stenosis, tumors



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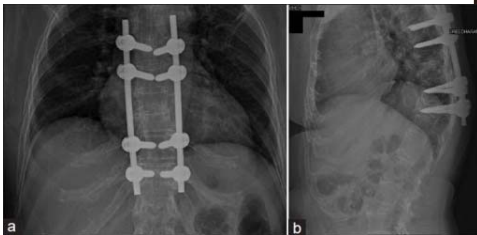
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## TYPES OF SURGERIES



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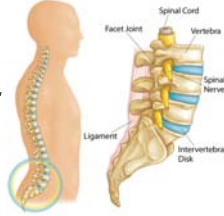
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## TYPES OF SURGERIES

- Lumbar
  - Anterior
    - ALIF, Disc replacement
  - Posterior
    - Laminectomy, TLIF, posterior fusion, discectomy
  - Lateral
    - Fusion, interbody placement
- Dx: disc herniation, spondylolisthesis, trauma (fracture), stenosis, disc collapse




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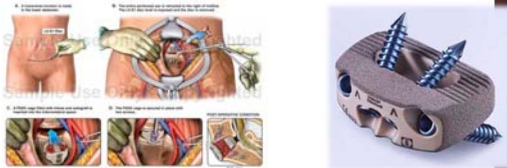
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## TYPES OF SURGERIES

- Anterior
  - Pros
    - Solid construct, large interbody graft, corpectomy
  - Cons
    - Anterior/abdominal incision, vascular surgeon involvement, often needs posterior stabilization




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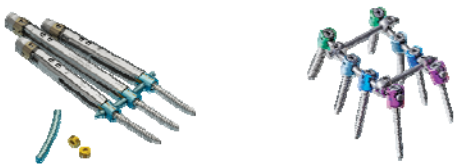
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## TYPES OF SURGERIES

- Posterior
  - Pros
    - Single exposure, large decompression, multiple levels, MIS options
  - Cons
    - Limited interbody options, smaller grafts




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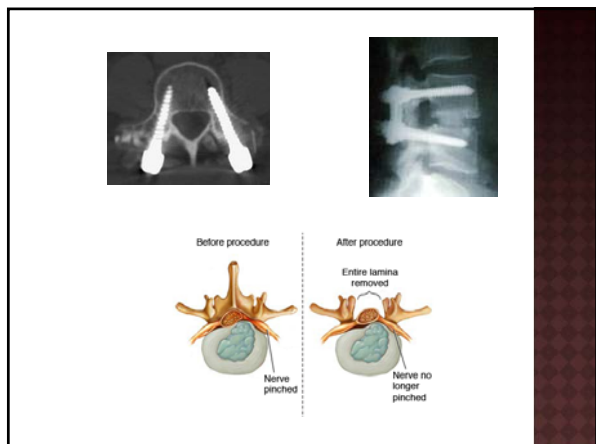
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### TYPES OF SURGERIES

- Lateral
  - Pros
    - MIS, large interbody graft, single surgeon, limited corpectomy
  - Cons
    - Multiple exposures, often needs posterior stabilization, neuro monitoring

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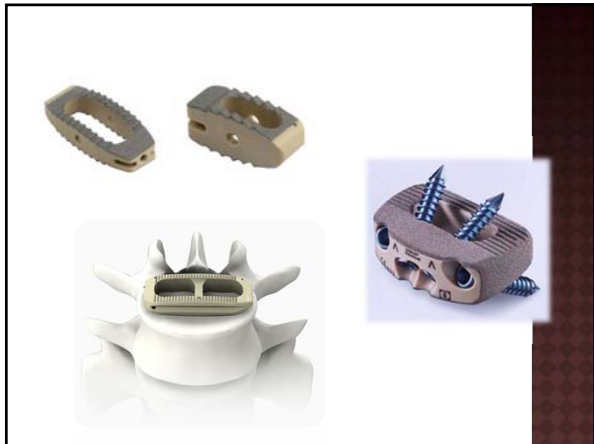
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**IMPLICATIONS OF SPINAL SURGERY**

- Loss of mobility
- Cause instability
- Adjacent segment disease
- Chronic pain
- Hardware failure
- Recurrent disease

An MRI scan of a spine showing a vertebra with surgical hardware. The hardware appears to be a cage or disc replacement, with some surrounding soft tissue changes.

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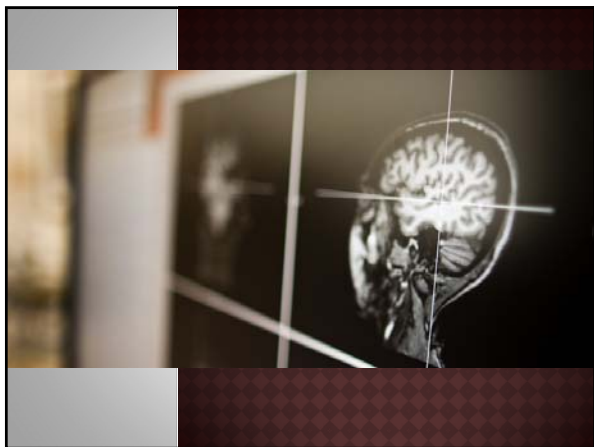
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