

## Case Review:

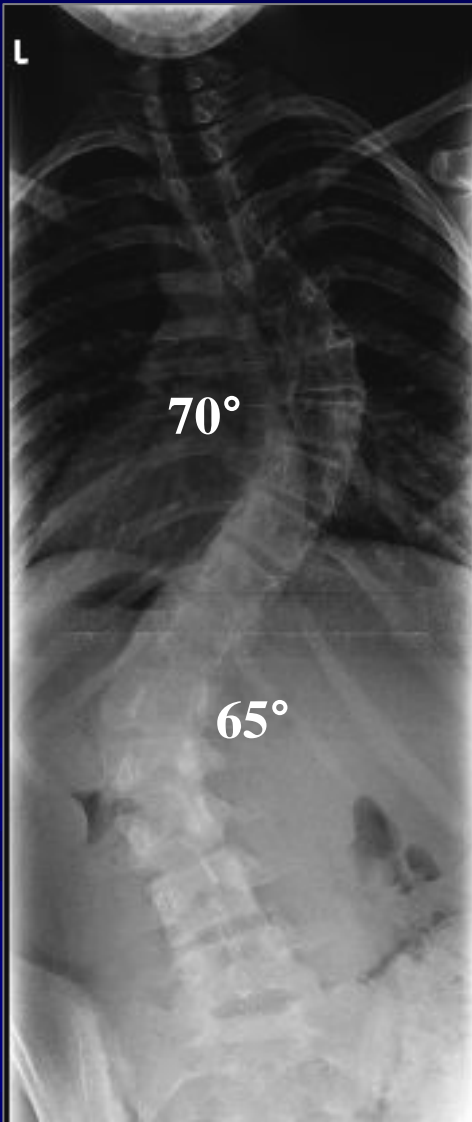
12 year old with Adolescent Idiopathic Scoliosis, treated with a posterior spinal fusion from T3-L4

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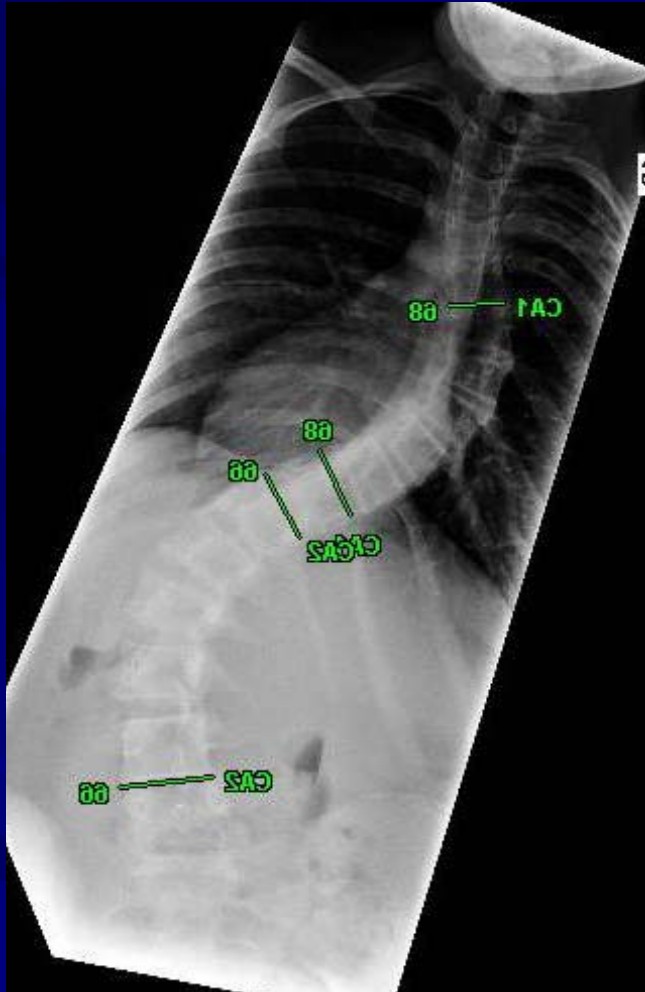
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# Pre-op X-rays



- 12-year-old female
- Intermittent Right side thoracic/shoulder pain
- Intermittent lumbar pain, denies any radiculopathy
- Scoliosis discovered during routine school screening.
- 70° thoracic curve
- 65° lumbar
- Type 3C+ curve

# Bending X-rays



The thoracic curve only mildly corrected on right side bending approximately 10%.  
The left lumbar curve was structural, correcting less than to greater than 25°.

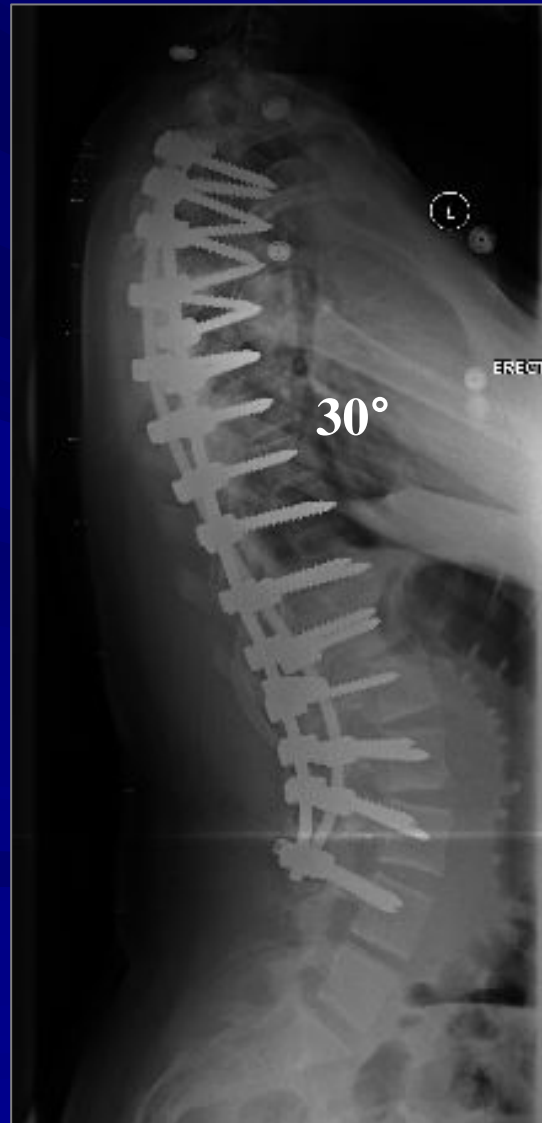
# Indications for Surgery

1. Progressive adolescent idiopathic scoliosis, type 3C+ double major rigid  $70^{\circ}$  thoracic,  $65^{\circ}$  lumbar scoliosis.
2. Thoracic kyphosis.
3. Failed conservative therapy.
4. Increasing pain with decompensation coronal and sagittal plane.
5. Cosmetic deformity with massive rib hump and depressed left shoulder.

# Surgical Strategy

- Segmental spinal instrumentation using CD-Legacy 5.5 1/4 inch stainless steel pedicle screw rod construct, Thoracic-3 to Lumbar-4 for type 3, C+ progressive adolescent idiopathic scoliosis.
- Posterior spinal fusion T3 to L4 using combination of locally harvested autogenous bone and rib bone taken from thoracotomy.
- A 15-level spinal osteotomy for mobilization of a rigid structural, thoracic and lumbar scoliosis with complete facetectomy and takedown of the midline Thoracic-5 through 11 and Thoracic-11 through Lumbar-3.
- Interlaminar decompression for exposure of pedicles, medial aspect of L1-2, L2-3, L3-4 under loop magnification and high intensity light.
- Thoracotomy takedown of chest wall thoracoplasty, 7 ribs – right hand side for removal of cosmetic rib hump and mobilization of spine.
- Multiple level fluoroscopic investigation and interpretation.
- Intraoperative SSEP mode evoked potential management.
- Plastic closure.

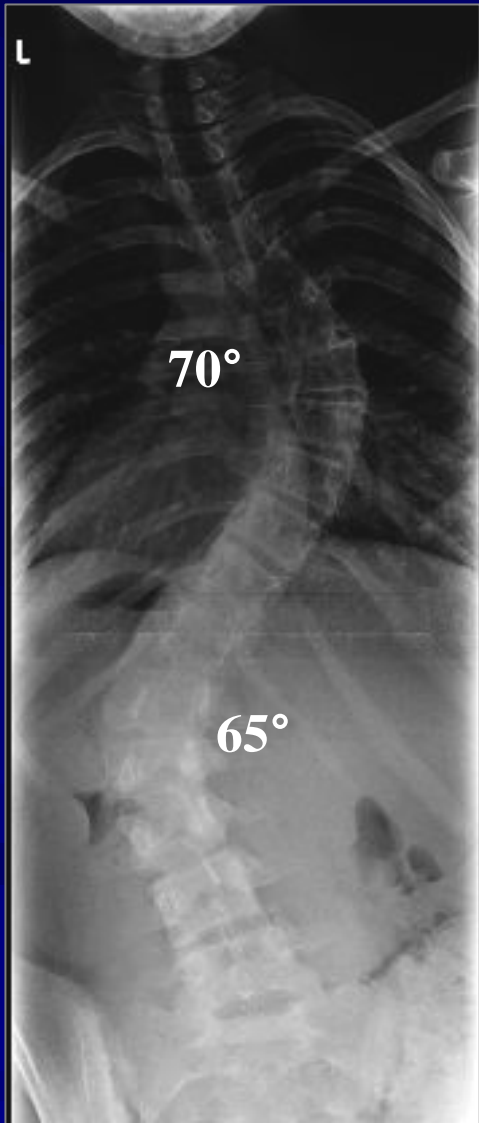
# Post-Op Films



A multiple level spinal osteotomy was necessary to mobilize the rigid structural curves to induce balance and this plus the thoracoplasty was necessary.

The patient also wanted thoracoplasty because of cosmetic reasons, but it was necessary for the surgery to mobilize the spine and to reduce the rotationally induced rib hump.

# Pre-Op/Post-op Comparison



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