



- Lumbar stenosis
- Lumbar disc herniations
- Lumbar radiculopathy
- Cervical disc herniation
- Cervical radiculopathy/myelopathy
- Thoracic disc herniation
- Thoracic stenosis/myelopathy
- Spinal Fractures
- Spinal Tumors
- Spine Infections
- Revision Surgeries

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Lower Back Pain

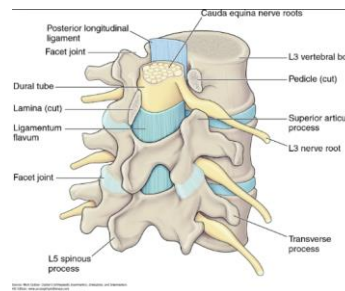
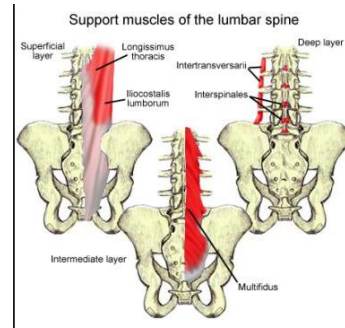
- 50-80% of the population
- Common cause for doctors visit
 - Second only to respiratory infection
- \$100 billion annual cost

<https://www.orthobullets.com/spine/2034/low-back-pain--introduction>

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Low Back Pain

- 5 sources of pain
- Acute versus Chronic
 - Acute back
 - 90% get better
 - Chronic?
- Correlated with low back pain
 - Alcohol
 - Smoking
 - Obesity
 - Sleep
 - 7-8 hrs
 - Depression



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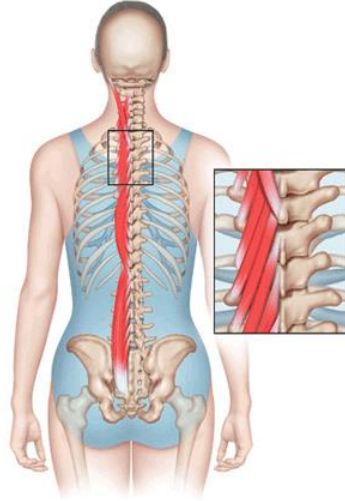
History

- HPI
 - Onset
 - Acute versus Chronic
 - Location
 - Where on your body is the pain?
 - Duration
 - Associated symptoms
 - Paresthesias, numbness, foot drop
 - Characterization
 - Sharp, or dull
 - Aggravating/Relieving factors
 - heavy lifting, Rest
 - Treatments
 - Duration, and effect
 - Setting
 - At work, at home, In bed?
- Pmhx
 - How sick is the patient?
 - Osteoporosis/Vitamin D
 - Previous spine fractures?
 - Kidney issues
- Psurghx
 - Previous spine surgeries
 - Gynecologic procedures
 - Prostate surgeries
- Social Hx
 - Smoking status
 - ETOH
 - Other drugs
 - What do you do for a living?

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Focused Physical Exam

- Palpation
 - Where does it hurt?
- ROM
 - Facet
 - Discogenic pain
- Reflexes
- Motor/Senory

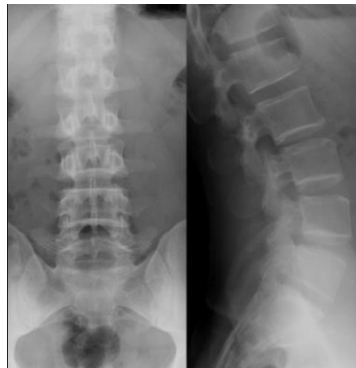


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Imaging

- | | |
|---|---|
| <ul style="list-style-type: none"> • Indications for x-rays <ul style="list-style-type: none"> – pain >2-4 wks – Trauma – Previous surgeries – Red flags | <ul style="list-style-type: none"> • Indications for MRI <ul style="list-style-type: none"> – Weakness, Tumor, Fracture – Failure conservative treatment – Prior surgery |
|---|---|

Standing X-rays



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Treatments

- Should be based on the **CAUSE** of pain
- Lumbar Spine MRI

Age	%Herniation	%Disc bulge	%Degeneration
20-39	21	56	34
40-59	22	50	59
60-79	36	79	93

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Treatments

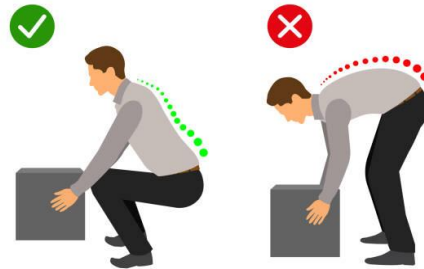
- Muscle strain: Pain along the paraspinal muscles
 - Address risk factors
 - Spinal Hygiene
 - NSAIDs (diclofenac/Medrol dosepak)
 - Muscle relaxers
 - Topical creams
 - Massage
 - Hot/Cold, lidocaine patches
 - PT
 - Trigger point injections
 - Back Brace

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- Spinal hygiene

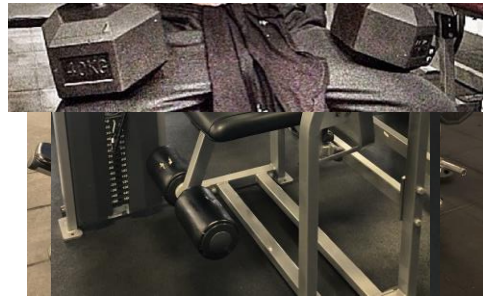
- Posture

- Why is it important?
 - Spinal Alignment
 - Coronal
 - Sagittal



- At the gym

- Be Active
 - Injury prone exercises
 - Better alternatives



- Lifting Technique

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Treatments

- Facet Joint pain: Bilateral pain with extension
 - Address risk factors
 - Spinal Hygiene
 - NSAIDs (diclofenac/Medrol dosepak)
 - flexeril
 - PT
 - Facet joint injections

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Treatments

- Discogenic: Bilateral pain with lumbar flexion
 - Address risk factors
 - Manual labor, smoking, poor health, obesity
 - Spinal Hygeine
 - NSAIDs (diclofenac/Medrol dosepak)
 - Acetaminophen
 - Muscle relaxers
 - PT
 - Epidural steroid injections

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Treatments

- Disc Herniation: Lower back and Radicular leg pain with NO weakness
 - Address risk factors
 - Spinal Hygeine
 - Address natural history: 80-90% improve 3 months
 - NSAIDs (diclofenac/Medrol dosepak), IM injections
 - Gabapentin/Lyrica
 - Acetaminophen
 - Muscle relaxers
 - PT
 - Epidural Transforaminal steroid injections

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Treatments

- Lower back pain with a Psychologic component
 - This pain is REAL
 - Physical exam is crucial
 - Address risk factors
 - Spinal Hygeine
 - NSAIDs (diclofenac/Medrol dosepak)
 - Consider SSRI, Amytriptyline
 - Acetaminophen
 - Muscle relaxers
 - PT
 - Referral to psychologist and/or psychiatrist
 - Beware of Rhuematologic conditions: Zebras

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Treatments?

- Medications from Mexico
- Chiropractic care/Traction
- Platelet rich plasma (Stem Cells)
- Ozone therapy
- Massage
- Acupuncture

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Chronic Lower Back

- No WTF (Weakness, Tumors, or Fractures/Failure)
- Treatments (Trial of conservative treatment)
 - Prevention is key, Knowledge is power
 - Address risk factors
 - Spinal Hygeine
 - NSAIDs (diclofenac/Medrol dosepak)
 - SSRI
 - Gabapentin/Lyrica
 - Acetaminophen
 - Muscle relaxers
 - PT
 - Epidural Transforaminal steroid injections
 - Referral to pain management: CHECK ON THIS
- WTF² = Referral to Spine Surgeon

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63 y/o F lower back pain, neurogenic claudication,
bladder incontinence, altered gait and posture

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What are the surgical indications for spine surgery referral?

Weakness

Tumors

Fractures

Failure of conservative management

What kinds of questions are important to ask?

OLD Ass ChARTS

Patients with previous surgeries: Did your surgery make you better?

Treatments?

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63 y/o F over 10 year history of lower back pain, 2 yr hx of neurogenic claudication, **bladder incontinence**, altered gait and posture

S/p L2-4 instrumented fusion with cement augmentation decompression from L2-S1 in 2016

Pain management, PT, and medications **with little relief**

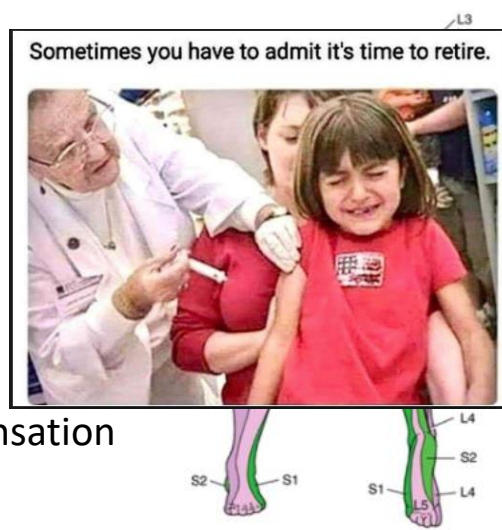
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- Pmhx: Htn, sees a cardiologist
- Surghx: as per HPI, hysterectomy, hernia surgeries
- Social hx: non-smoker, no etoh

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Physical Exam

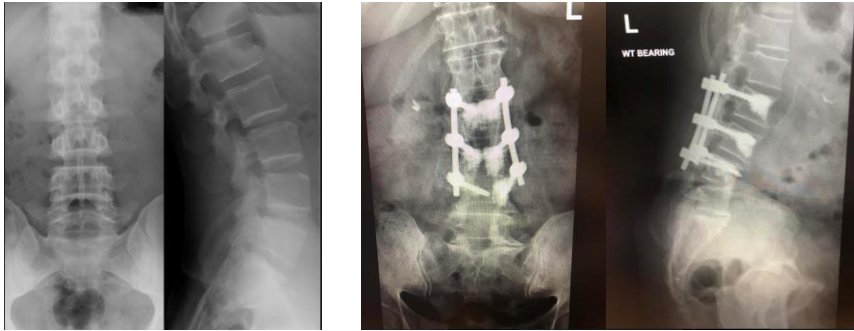
- Observe
 - Behavior
 - Gait
 - SOB
- Palpate
 - Tenderness
- Strength and Sensation
 - reflexes



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Imaging

- Indications for x-rays
 - pain >2-4 wks
 - Trauma
 - Previous surgeries



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Referral to Spine Surgeon

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Assessment/Operative Plan/Preop

- 63 y/o F
 - Neurogenic claudication, Weakness, Mechanical Pain
 - Preop studies:
 - Lumbar spine CT scan/MRI
 - Bone Mineral Density scan
 - Preop Labs
 - CBC w/diff
 - CMP
 - EKG 12 lead
 - Chest X-ray
 - ESR/CRP



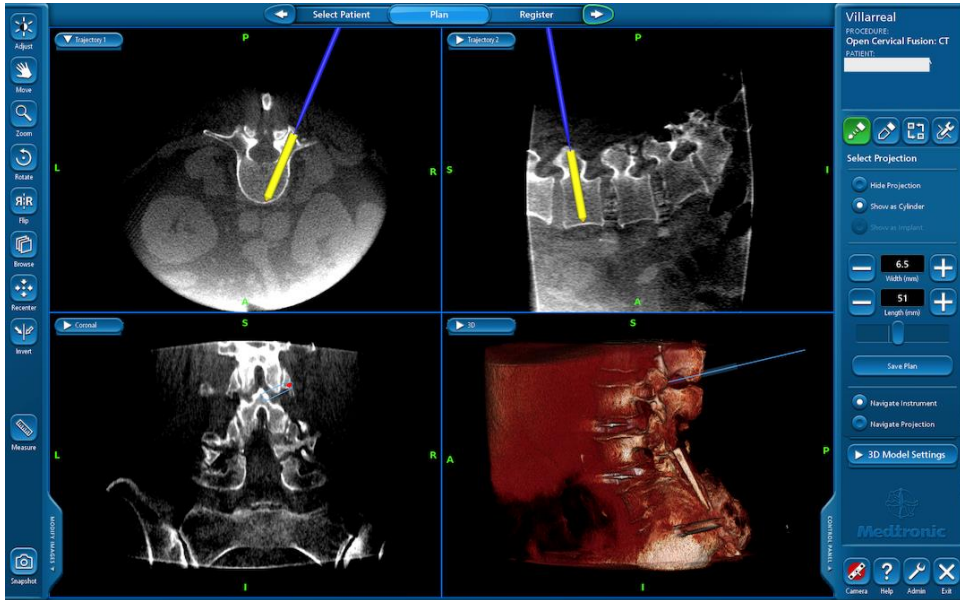
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Operative Plan: Two Stages

- Mechanical Pain: L4-S1 ALIF
 - Alignment and stability
 - Previous abdominal surgeries
- Neurogenic claudication and Weakness/Osteopenia
 - Previous L2-S1 decompression
 - Alignment: Pelvic Incidence= Osteotomy
 - Fixation: L2 to Pelvis



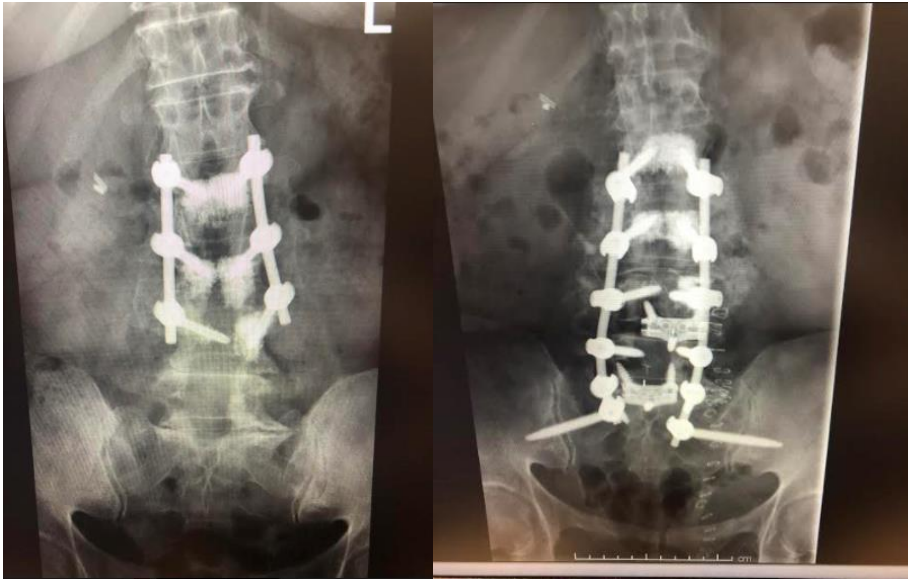
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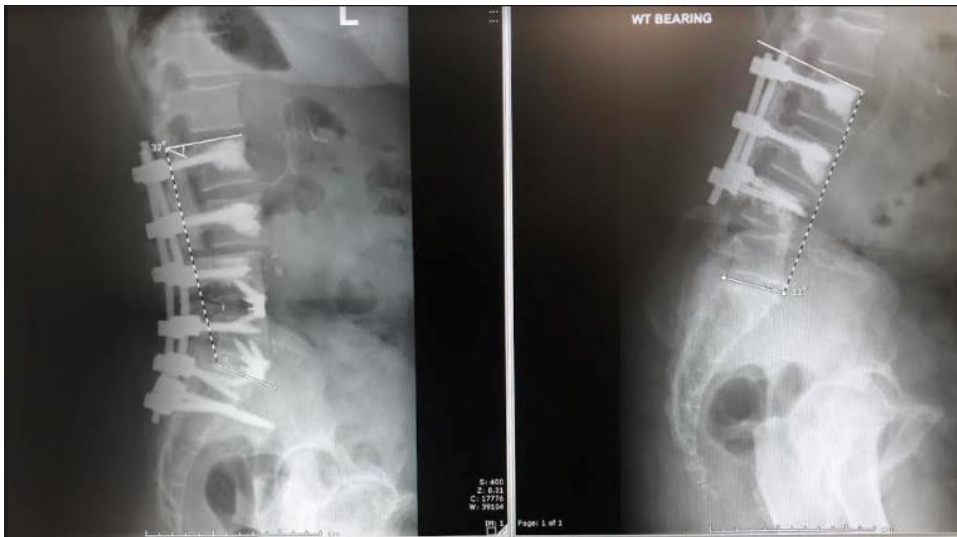
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What were the original indications for Surgery?
Referring clinicians can have a huge impact.

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DHR Health
Proudly
Welcomes

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Fellowship Trained in Spine Surgery

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