

Low Back Pain

Beyond The Therapeutics



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SPINE & PAIN CENTERS

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Disclosures

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Pre-test question

Discogenic pain is worse with what activity?

- A. Standing
- B. Bending
- C. Twisting
- D. Dancing

Pre-test question

What percentage of adults will suffer from back pain at some point in their lives?

- A. <20%
- B. 45%
- C. 70%
- D. >80%

Pre-test question

Neurogenic back pain can be treated with what types of procedures?

- A. Epidural steroid injections
- B. Minimally invasive lumbar decompression
- C. Spinal cord stimulator
- D. All of the above

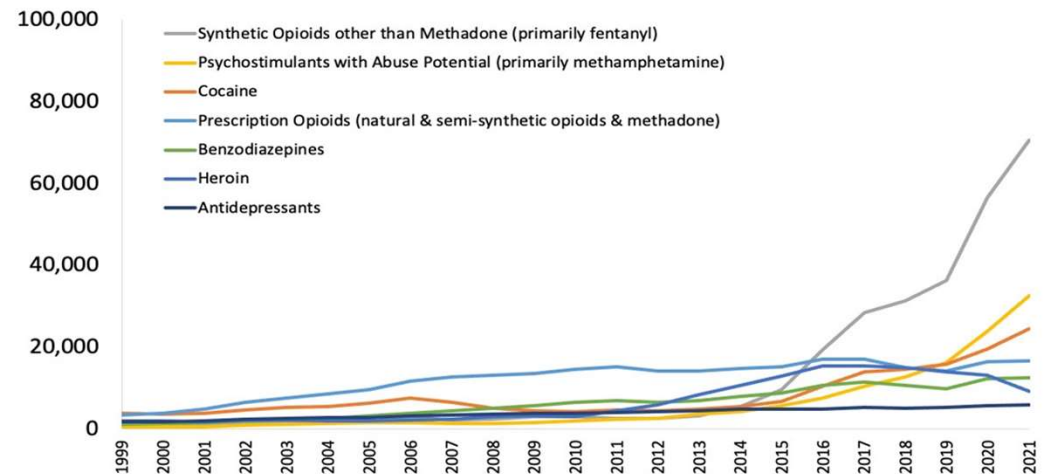
Objectives

- Identify various causes for low back pain
- Review prevalence of low back pain and current opioid epidemic
- Discuss minimally invasive options with patients
- Recommend appropriate patients for pain management referral
- Differentiate various causes for back pain and understand treatment options other than opioids

Opioid Epidemic

- 3 Million US citizens have had or currently suffer from an opioid use disorder
- >100,000 drug involved overdose deaths in 2021
- >80,000 drug related overdoses involved opioids

Figure 2. National Drug-Involved Overdose Deaths*, Number Among All Ages, 1999-2021



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999–2021 on CDC WONDER Online Database, released 1/2023.

Opioid Epidemic

Figure 3. National Overdose Deaths Involving Any Opioid*, Number Among All Ages, by Gender, 1999-2021

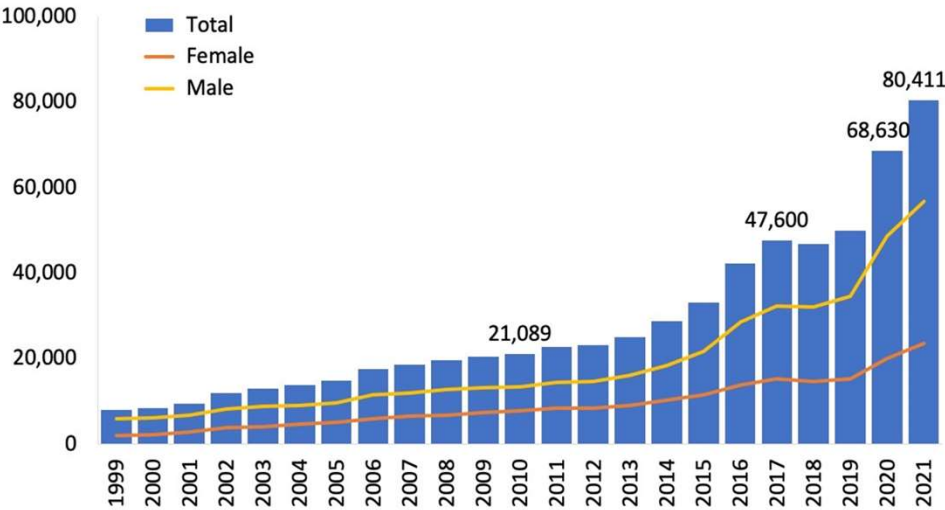
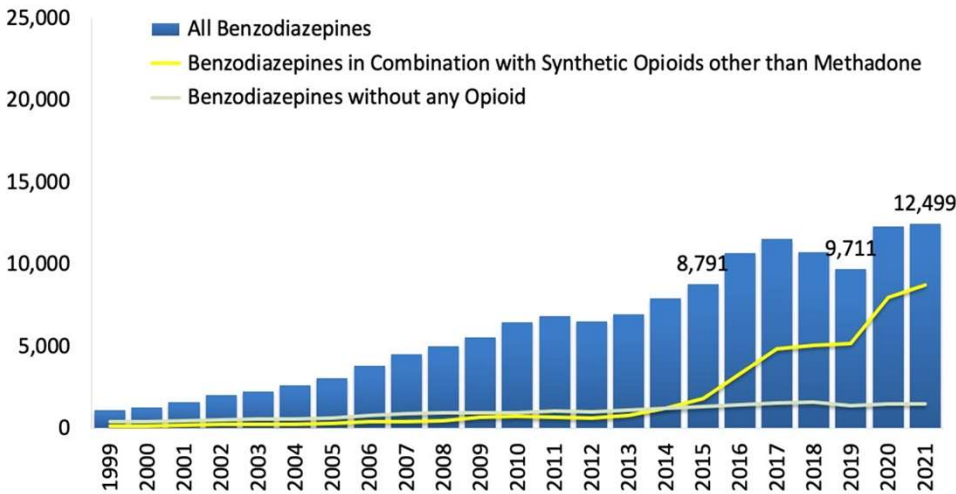


Figure 9. National Drug Overdose Deaths Involving Benzodiazepines*, by Opioid Involvement, Number Among All Ages, 1999-2021



*Among deaths with drug overdose as the underlying cause, the "any opioid" subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids (other than methadone) (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

*Among deaths with drug overdose as the underlying cause, the benzodiazepine category was determined by the T42.4 ICD-10 multiple cause-of-death code. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Low back pain statistics

- Studies show 23% of adults worldwide suffer from chronic low back pain
- Overall prevalence of 84% of adults will have back pain at some point in their life
- 31 million Americans suffer from back pain
- It is the second most common cause for a patient to see their provider (#1 respiratory)
- \$50 Billion spent yearly on treatment and medication for back pain
- #1 cause for disability worldwide



Causes for low back pain

- Strains, sprains, muscular
- **Axial:** arthritis of facet joint, sacroiliitis, scoliosis
- **Discogenic:** DDD, disc herniation, annular tear, discitis
- **Neurogenic:** radiculopathy, stenosis, failed back syndrome
- **Fractures/bony:** osteoporosis, cancer
- Other medical conditions: AAA, kidney stone, bladder infection, PVD

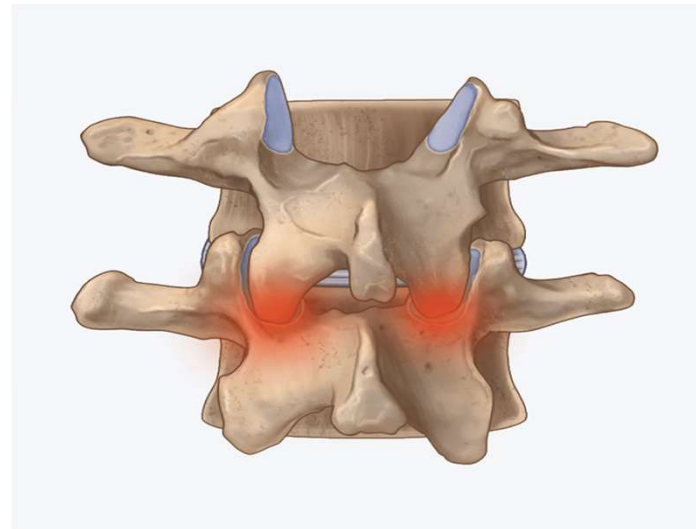
Axial Pain

Facetogenic pain:

- Cause: repetitive stress, trauma, chronic inflammation of the facet joint
- Symptoms: pain with twisting/ rotation, lumbar extension, pain with prolonged sitting or standing, can refer pain to flank, hip, posterior thigh

Treatment options:

- Facet joint injection
- Radiofrequency ablation



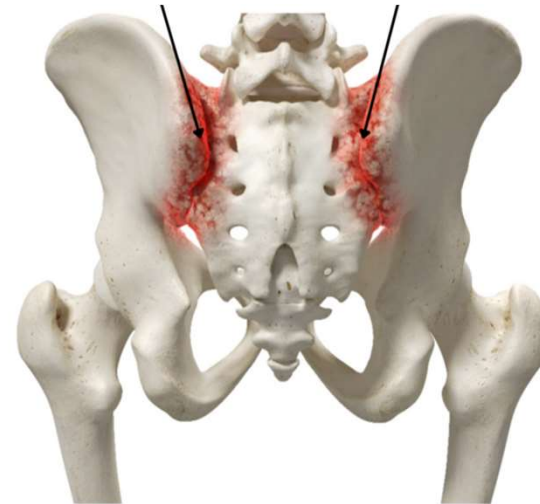
Axial Pain

Sacroiliitis:

- Cause: arthritis SIJ, trauma, laxity of ligaments (pregnancy, hypermobility, EDS), malalignment, gait abnormalities, prior lumbar fusion
- Symptoms: pain, stiffness of back/hips, pain with prolonged sitting, going from sitting to standing, climbing stairs, can mimic sciatic symptoms, groin pain

Treatment options:

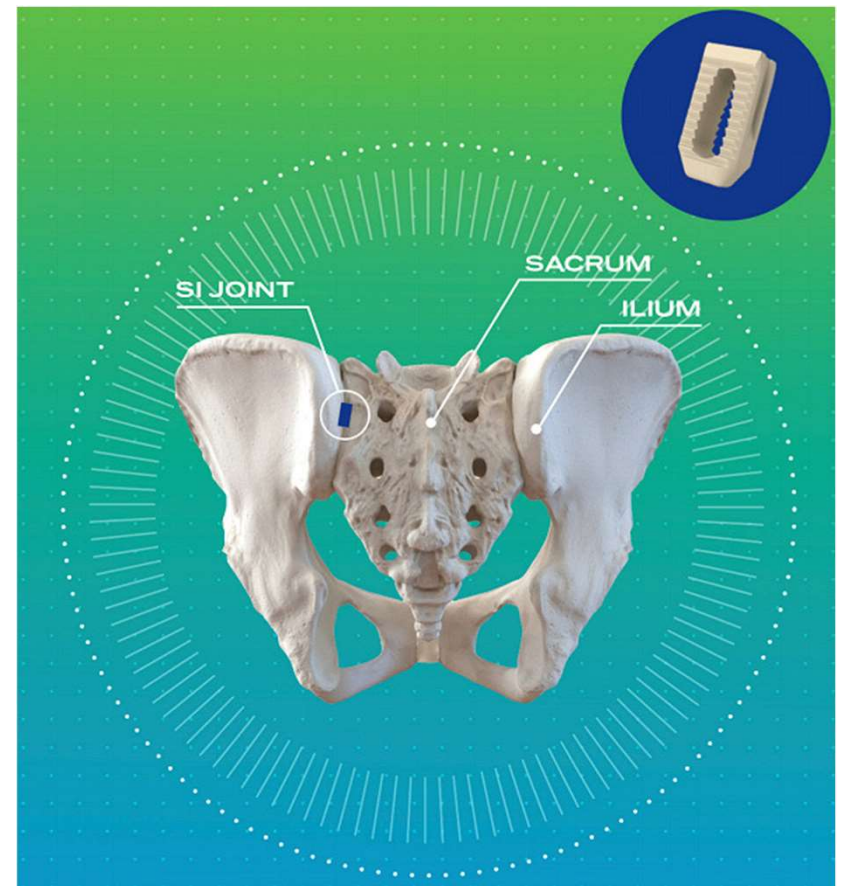
- Steroid injection
- Radiofrequency ablation
- Minimally invasive SI joint fusion



Minimally invasive sacroiliac joint fusion



- Small incision
- Limited down time
- Does not require general anesthesia
- Posterior and lateral approach options



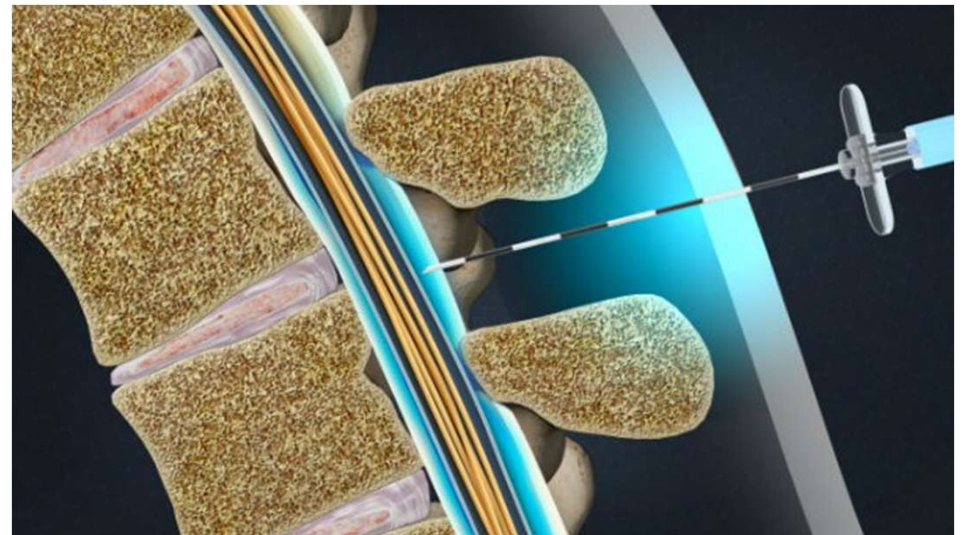
Discogenic pain

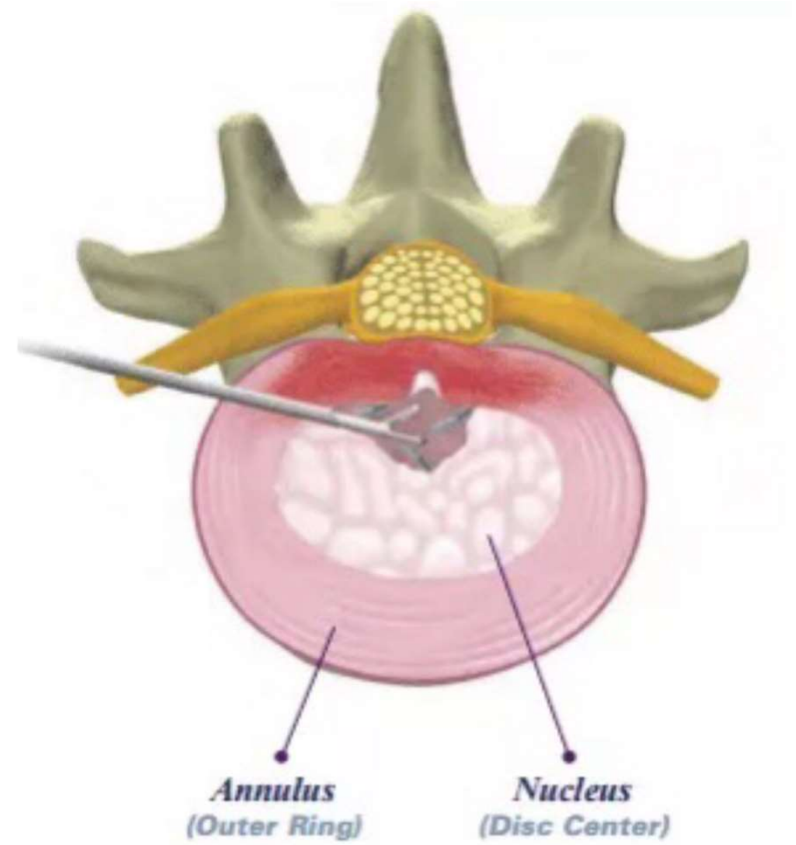
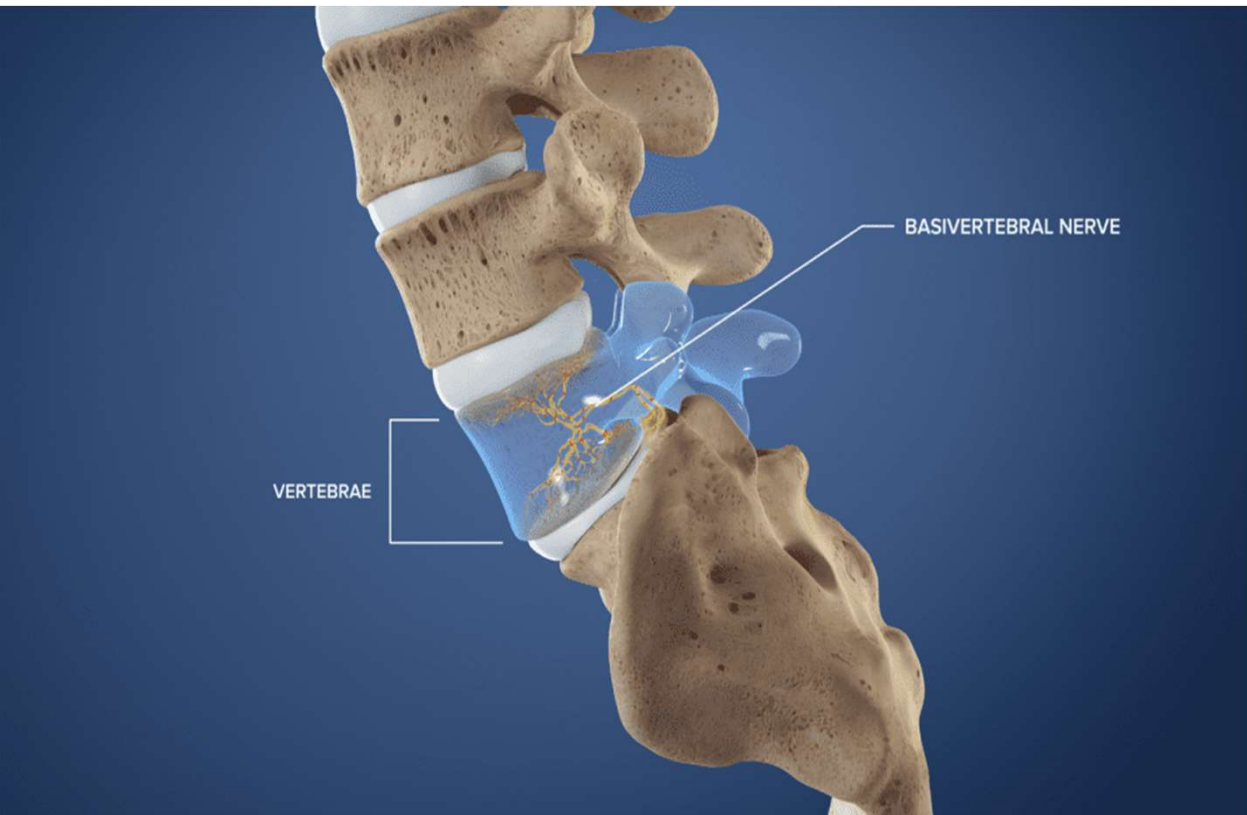
Cause: injury to disc (herniation, tear), degenerative

Symptoms: pain with sitting, bending, lifting, sharp, burning, can cause radiating pain or numbness

Treatment options:

- Epidural steroid injection
- Intradiscal injections
- Basivertebral nerve ablation
- Percutaneous disc decompression





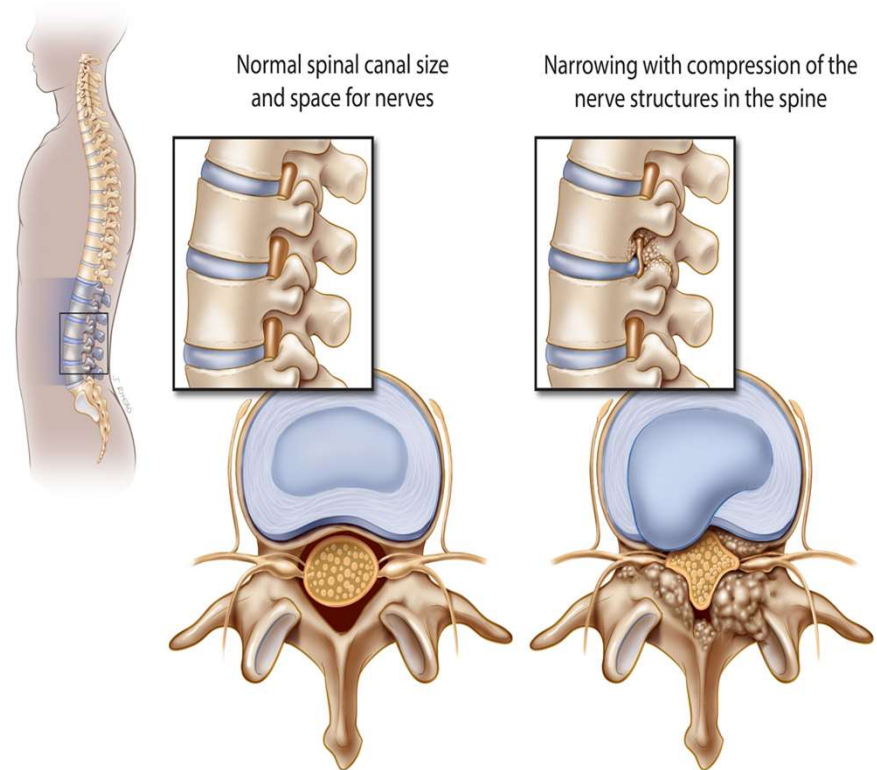
Neurogenic Pain

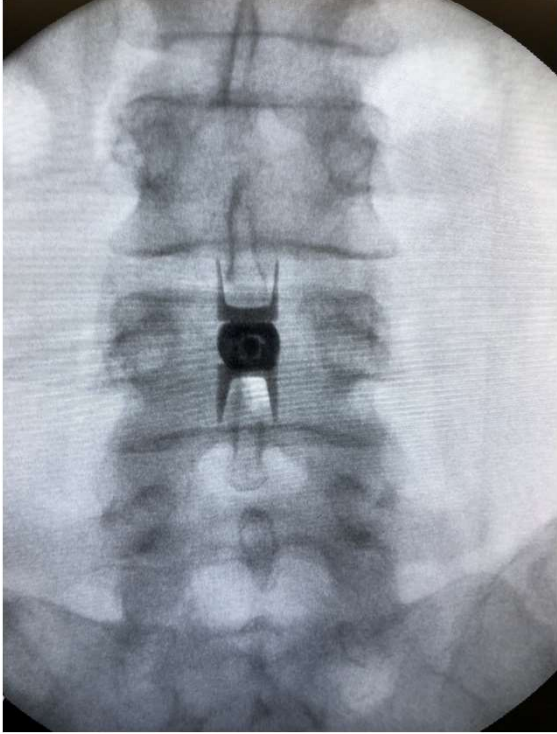
Lumbar spinal stenosis:

- Cause: age related degeneration
- Symptoms: pain standing and walking, relieved by sitting or flexion, numbness, tingling, weakness, imbalance

Treatment:

- Epidural steroid injection
- Minimally invasive lumbar decompression
- Interspinous spacer devices





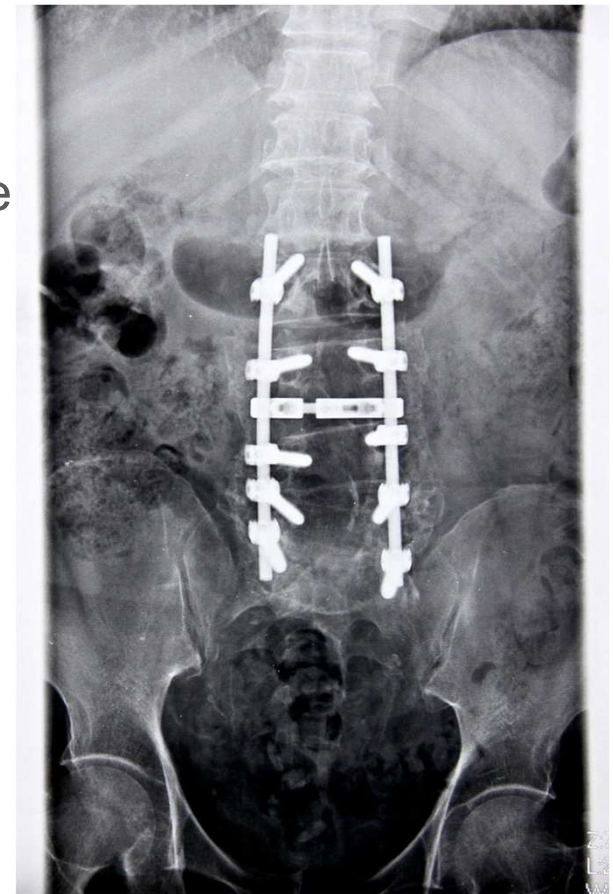
Neurogenic Pain

Post-laminectomy / failed back syndrome:

- Cause: epidural fibrosis, arachnoiditis, nerve damage
- Symptoms: burning, pain with all activity, numbness,
- tingling, radiating

Treatment:

- Spinal cord stimulator



Fractures / Bony Pain

Compression fractures:

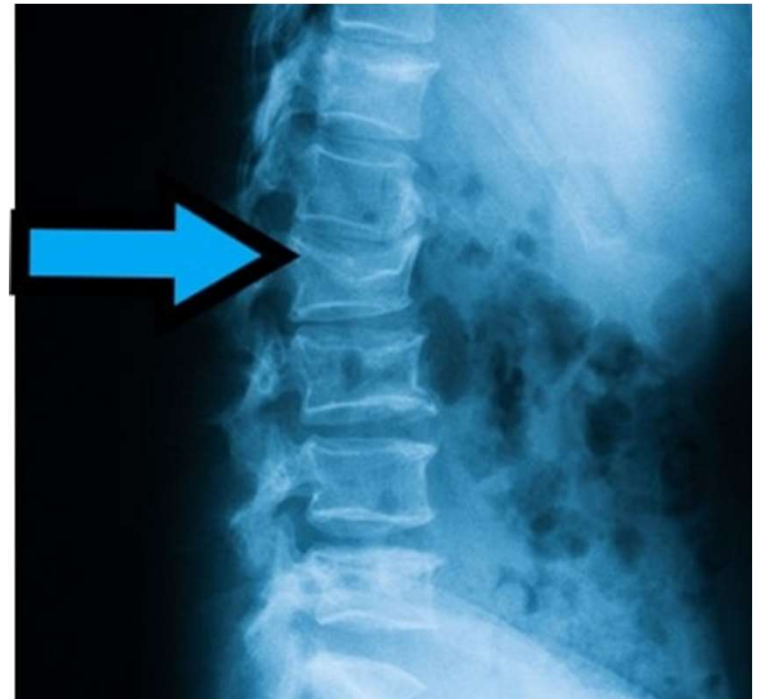
- Cause: trauma, osteoporosis, cancer
- Symptoms: sharp, severe pain

Treatment:

- Bracing
- Kyphoplasty

Morbidity:

- Increase mortality, chronic pain, decreased lung volume, impaired QOL, increased risk for subsequent fractures of hip or spine



Post test question

Discogenic pain is worse with what activity?

- A. Standing
- B. Bending
- C. Twisting
- D. Dancing

Answer:

B: bending

Post test questions

What percentage of adults will suffer from back pain at some point in their lives?

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- B. 45%
- C. 70%
- D. >80%

Answer:

D: >80%

Post test questions

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- D. All of the above

Answer:

D: All of the above

Conclusions

- Pain management has more options than just pain meds!
- Refer to pain management early
- Be nice to your back
- Questions?



References

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