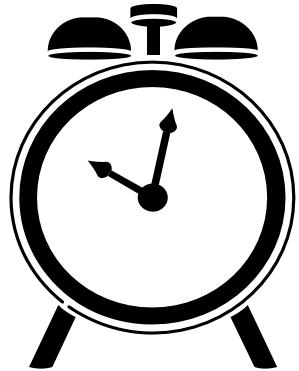


An Overview of Low Back Problems



Alan C. Bean, MD, CIME



- **Ice** & ibuprofen or naproxen ASAP

Provider's Role

- Diagnosis
- Causation of Injury
- Define work restrictions and abilities
- Treatment Plan
- Disability Prevention

Diagnosing the Problem

-This *should* be the easiest part of the process

**“Well, Mr. Crumley, maybe
it isn’t your disc after all...”**



What's in there?

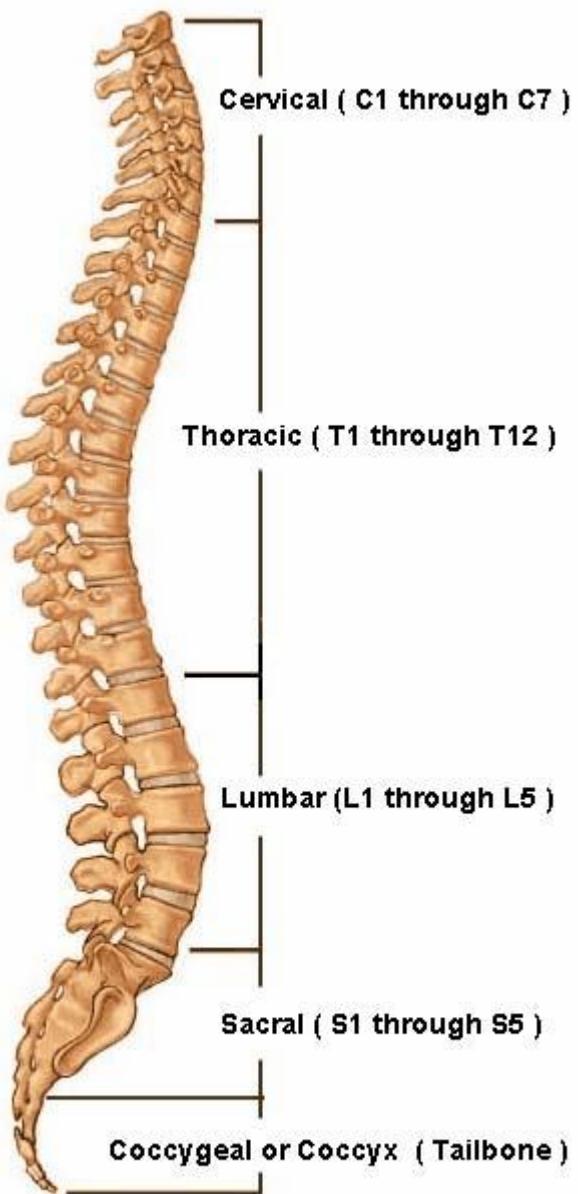
- muscles

- bones and joints between bones

- discs

- ligaments and “connective tissues”

- spinal cord/nerves



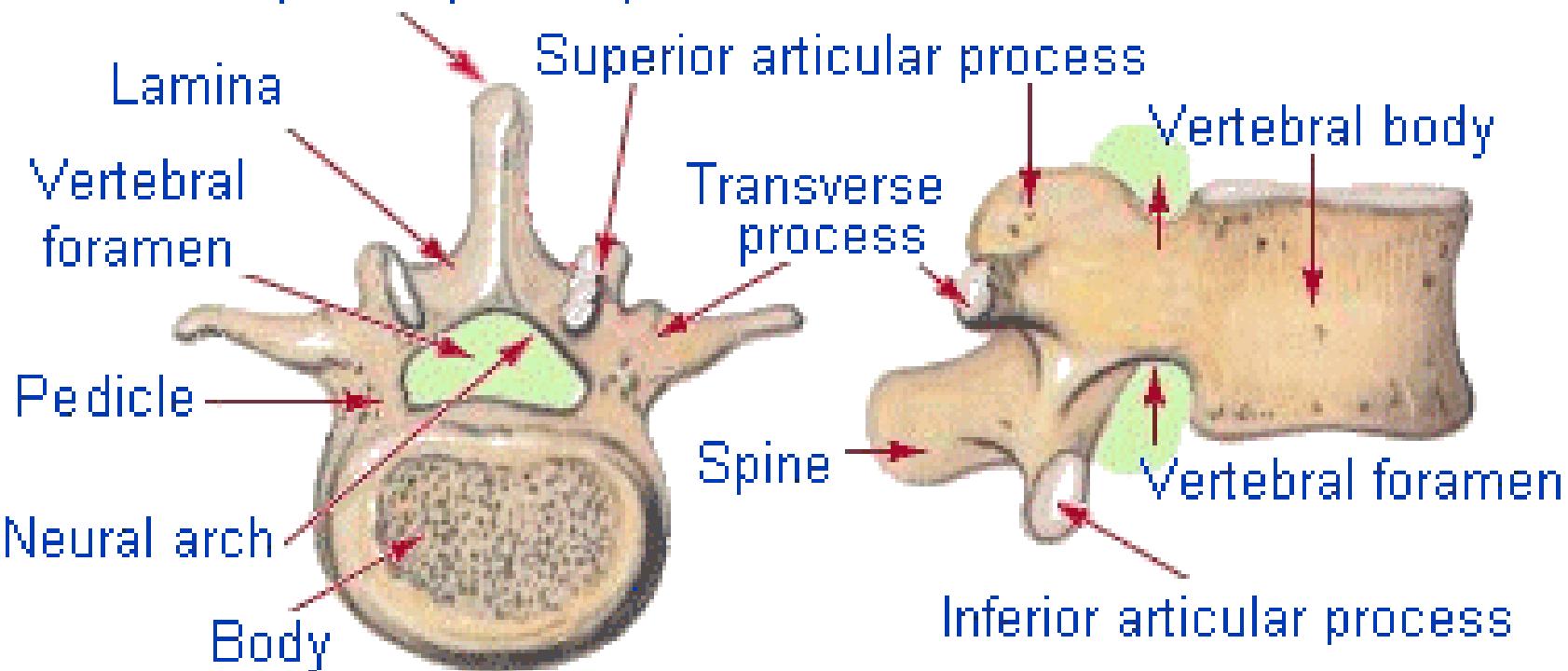
The Spinal Column (Vertebral Column)



Viewed from: Front Side Back

Top (left) and side (right) views of a typical vertebra

Spine: Spinous process



The (inter)vertebral foramen contains the spinal cord. Spinal nerves exit vertebral canals through the vertebral foramina.

Graphics modified: DeLisa & Stolov, p. 35

Common causes of LBP

- Sprain/strain vs. “tear” of muscles or connective tissues
- Irritation of pre-existing degenerative disease
- Disc herniations, tears, ruptures
- Fractures
- Hip disease
- Aortic aneurysm
- Cancer
- Piriformis Syndrome

THIS is a ruptured disc!

Slipped vs. Bulge vs. Herniation vs. Rupture vs. Annular Tear



- Loss of disc height
- Loss of hydration in the discs
- 1/2" height loss per decade after 40



1



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FoV 260*260

Z 21*512s

Sag>Tra(1.4)

W 754

*No single raindrop believes that it
is to blame for the flood...*



Methinks thou doth protest too much...

- “It’s from all my years on this job...”
- “The other doctor told me it was from work.”
- “I work on cement floors all day.”

“Cumulative Aging Disorder”



Of course my hair loss is work related
I've been here 20 years and didn't have this problem when I started

Low Back Pain

- Low back pain peaks in the 4th-5th decade and decreases thereafter
- Disc herniations most common in the 3rd and 4th decade and decrease thereafter
- Spinal stenosis is more common as workers age

Are there predisposing and/or contributing abnormalities?

- scoliosis
- leg length discrepancies
- transitional vertebrae
- osteoporosis
- degenerative disc disease
- osteoarthritis/spondylosis
- spondylolisthesis
- spinal stenosis
- multiple sclerosis
- multiple myeloma
- ankylosing spondylosis
- pelvic/gastrointestinal disease

...“reasonable degree of medical certainty”...?

Spondylolisthesis



Vertebral Body Fracture with Degenerative Disc Disease





T-8, T-9 and T-10 Compression Fractures

Is The Problem Work Related?

Who should treat this?



What is the patient doing with the other 128 hours per week (including sleep) outside of work?

- Exercise program?**
- Hobbies?**
- Sports?**
- Second Jobs?**
- Home improvements?**
- Car repairs?**
- Sleep!**

Gradual Onset of Back Pain

- no acute, identifiable precipitating incident
- CTD?
- RSI?
- Overuse Syndrome?

Work related?

...almost never, but...this is not what you are paid for!

Send for evaluation *without prejudice*

First rule of medicine: Check your own pulse.

**“With this lousy chair,
I see a Workers’ Comp claim in
my future, Doc.”**



Treating the Problem

A photograph of a sunset or sunrise sky. The upper half of the image is filled with wispy, horizontal clouds colored in shades of orange, yellow, and light blue. Below these, larger, darker cumulus clouds are visible, some with a reddish hue from the setting sun. The horizon line is at the bottom of the frame, showing a dark silhouette of a forest line and a range of mountains in the distance.

- Heat vs. Ice
- Anti-inflammatories
- Stretching/Exercise/Physical Therapy
- Massage
- OMT/CMT
- Injections
- Discectomy
- Fusion
- Disc replacement



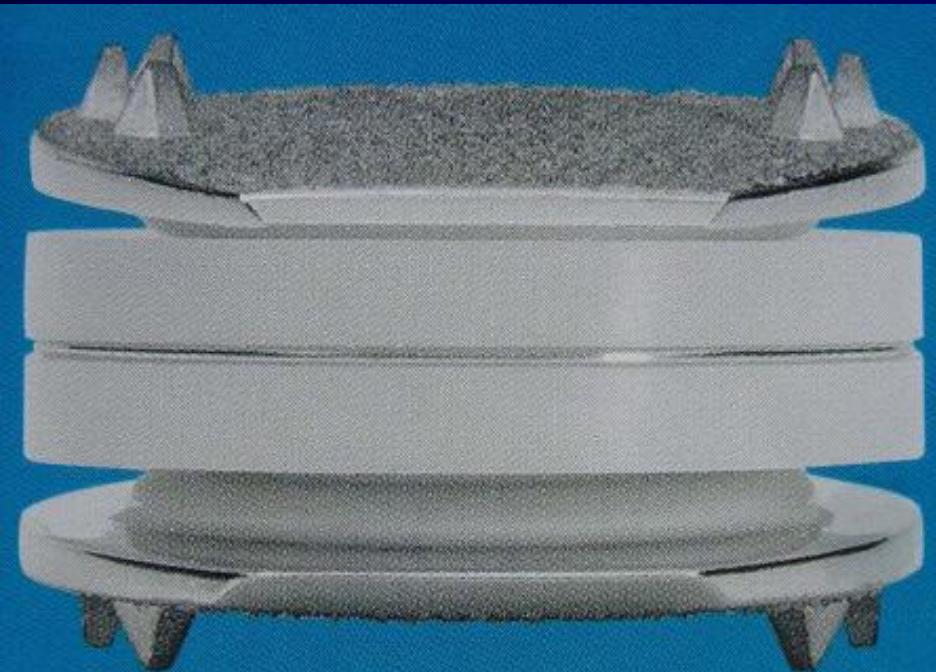
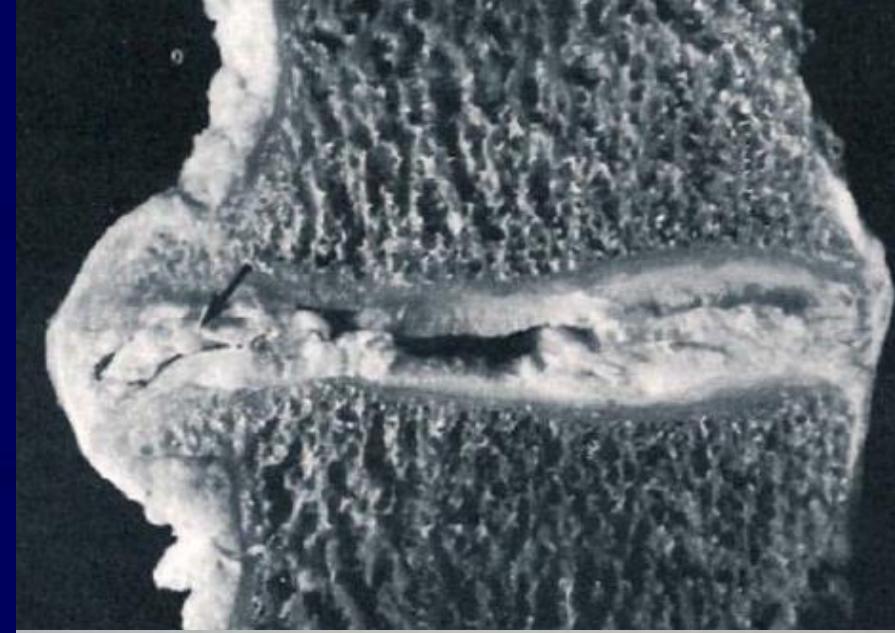
**What is the role of narcotic pain medications?
Marijuana?**

Alternative treatment methods:

- Accupuncture
- Massage therapy
- Decompression traction
- Pool therapy
- Epidural, facet and nerve root corticosteroid injections
- Heel lift
- Palliative care in Workers' Compensation?

Posterior Lumbar Instrumented Fusion







Artificial Disc Implantation

When does treatment stop?

- What *is* MMI?
- “Reasonable degree of medical certainty”
- “Reasonable, conservative medical treatment”
 - NOT extraordinary treatment...
- Preparing for discontinuation of treatment starts at the first appointment!

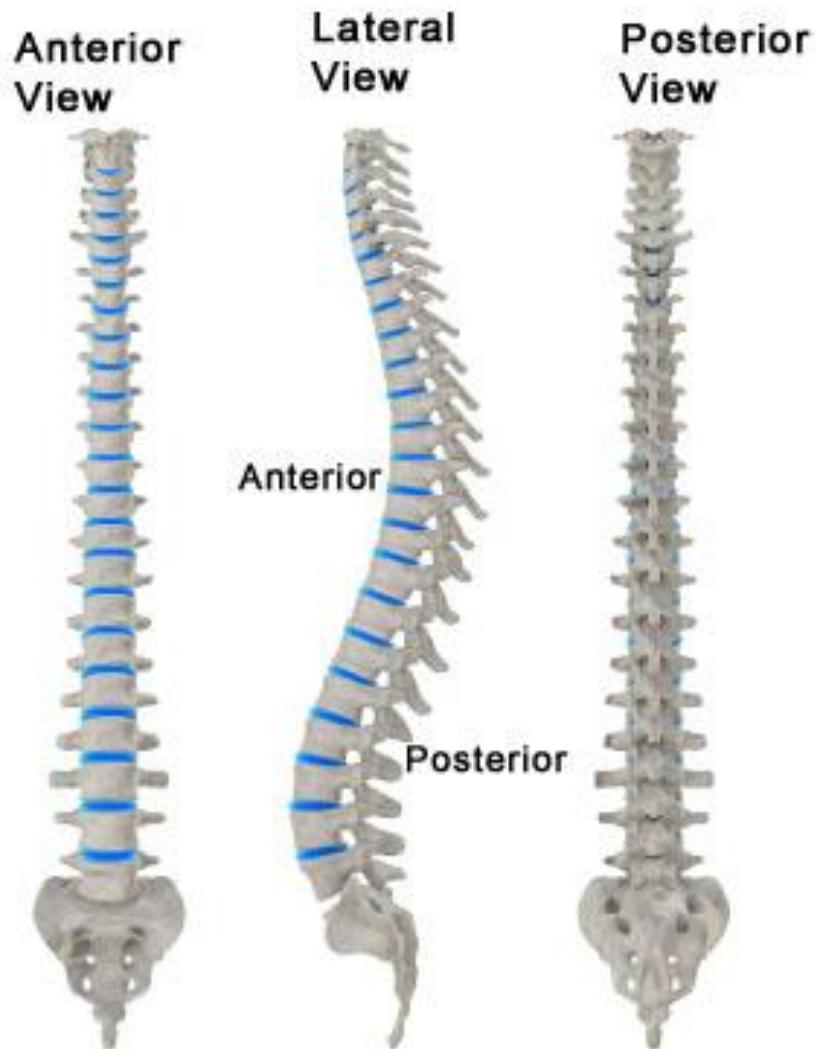


**"You called me just in time. Another day or two,
and you would have been up and around."**

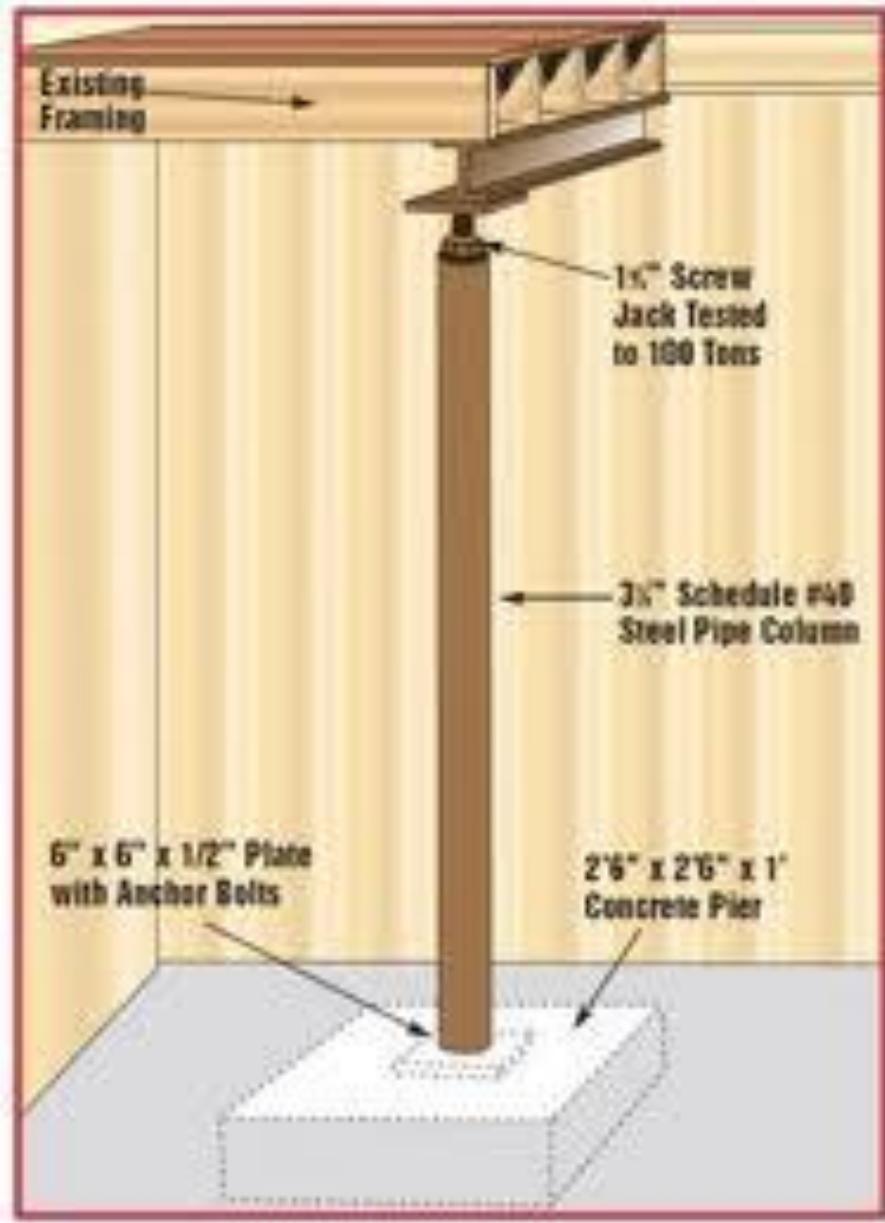
Prevention

Two dirty words.

The Spinal Column (Vertebral Column)



Viewed from: Front Side Back





Good lifting technique.

Abnormal Biomechanical Forces



It's all about symmetry and physics...

A landscape photograph of mountains at sunset. The sky is filled with large, wispy clouds illuminated from below by the setting sun, creating a warm orange and yellow glow. In the foreground, the dark silhouettes of tree tops are visible. The middle ground shows several layers of mountain peaks, their slopes partially obscured by the low-hanging clouds. The overall atmosphere is serene and dramatic.

Questions?