

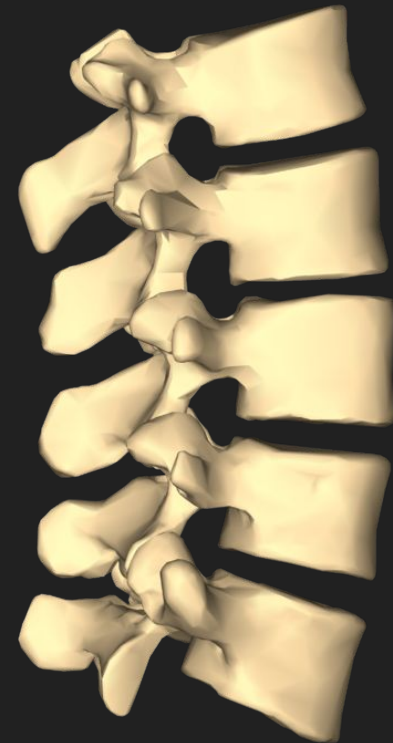


LOW BACK PAIN PREVENTION

Presented by: Simplex Wellness
Hosted by:

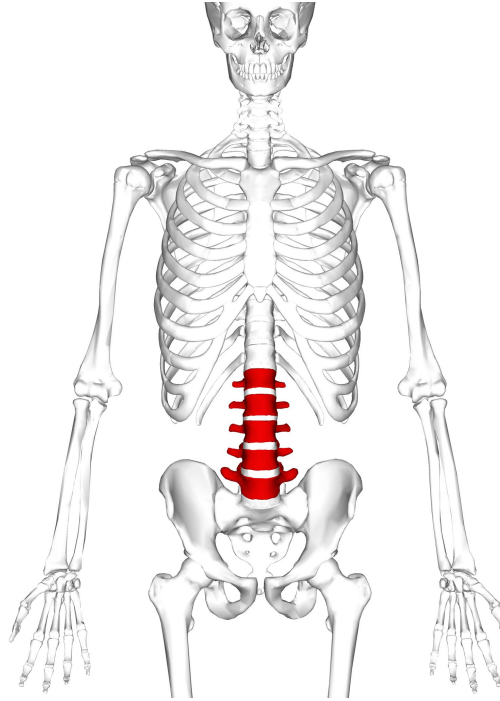
OBJECTIVES

- Understand the basic anatomy of the lumbar spine
- Discuss the management of low back and spine-related pain in the U.S.
- Provide education on the management of low back and spine-related pain
- **IMPROVE** the management of low back and spine-related pain in our community



MANAGEMENT IN THE U.S.

- The rate of back surgery is 40% higher than other countries.
- Surgery rates increased 6x over the past 25 years
- Cost per surgery has tripled 60 K – 80 K
- >15 billion dollars spent on fusions each year



OUTCOMES?

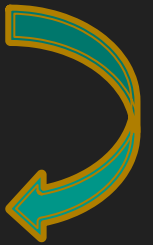
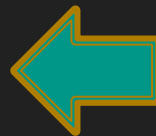
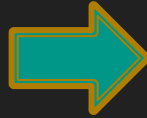
- **2013 Worker's Compensation Study**
 - 725 fusions vs. 725 controls
 - 1 out of 4 had a repeat surgery
 - 1 out of 3 experienced a “major complication”
 - 1 out of 3 did not return to work

20th Century Epidemic

- Experts have likened the frequency of low back pain (LBP) to a modern-day epidemic
- ***LBP is the leading cause of activity limitation and work absence***
- >80% of the population will experience LBP in their lifetime
 - Episodes of chronic LBP have almost **tripled** since 1992
- LBP accounts for > **10%** of primary care visits



Why are we so bad at managing low back pain?

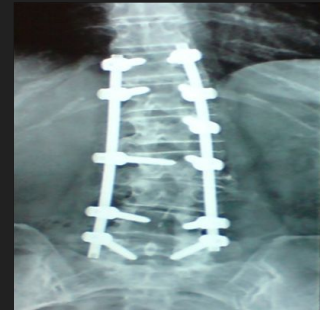
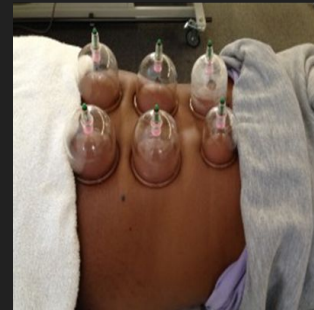


Bad Management? Or Poor Guidelines?

- ***> 40% will not receive treatment of known effectiveness!***

- Treatment is highly variable

- Hundreds of options from various health care providers
- Increases cash flow but does not improve outcomes



- Adherence to Clinical Practice Guidelines for spine care is < 65%

- Practice driven by personal opinion and bias
- High degree of variability

Opioid Epidemic

2014 Statistics:

260 million
prescriptions
issued

125 overdose
deaths/day

More deaths per
year from opioid
overdose than car
crashes or guns

#1 reason for opioid prescription is
LOW BACK PAIN



*Did You
know?*

The U.S. makes up **5%** of the world's
population but . . .

Consumes **80%** of global opioid supply
and **99%** of all hydrocodone

Do we really need imaging?

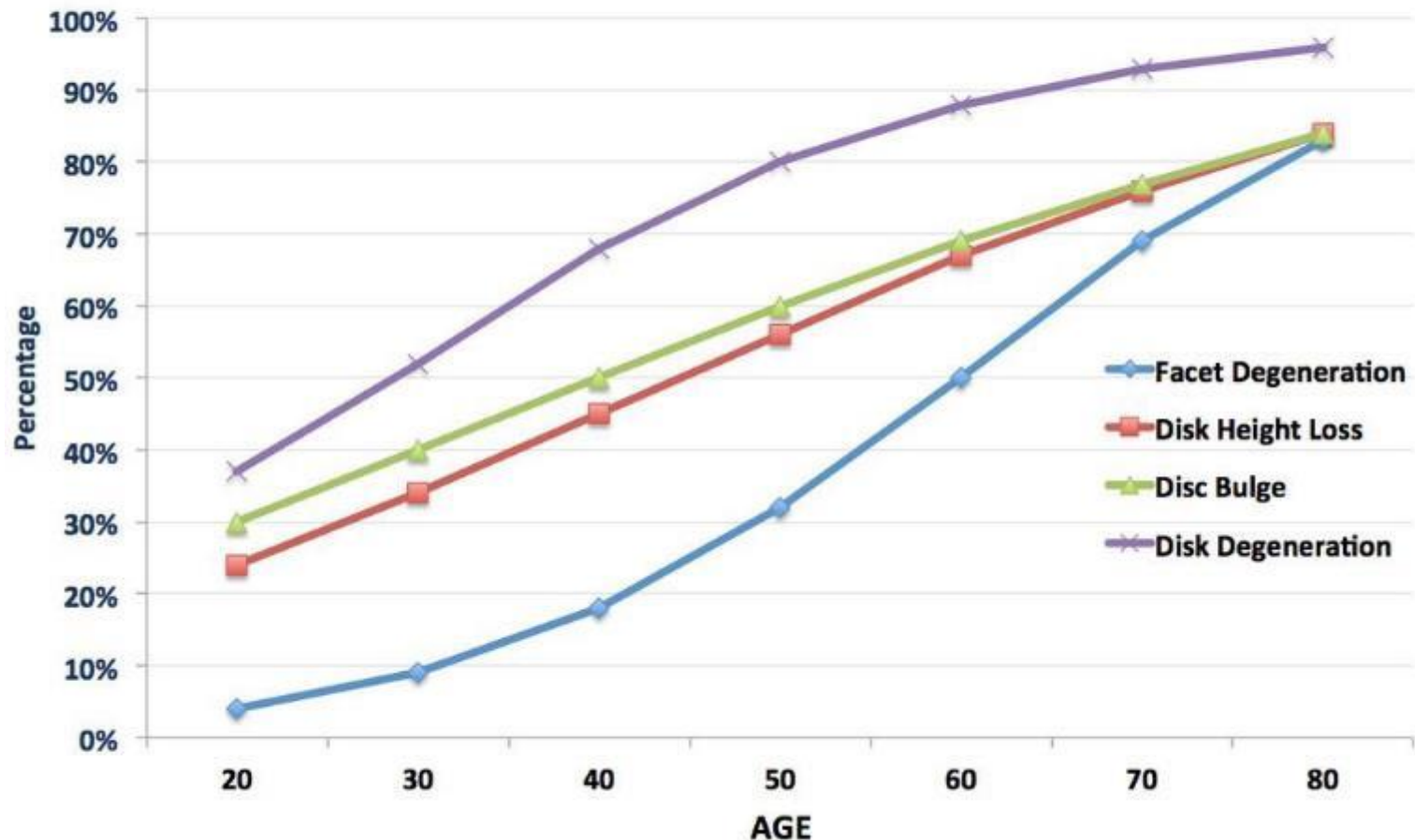
- Lumbar disc degeneration is present in 90% of individuals ages 50-55
 - 48% of individuals ages 20-22 have at least one degenerative disc
- MRI study of healthy adults found that 98% of subjects with no neck pain had evidence of “degenerative changes”



Do we really need imaging?

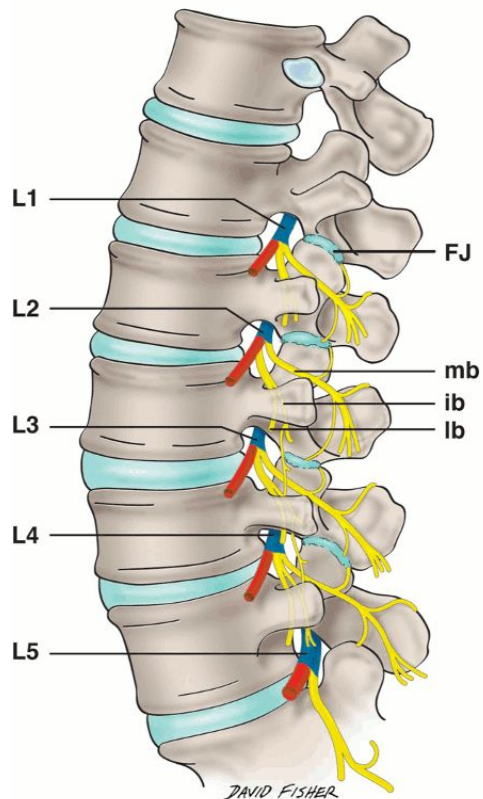
MRI & CT Findings in Individuals Without Low Back Pain

Wrinkles on the inside are normal!



Brinjikii et al. Systematic Literature Review of Imaging Features of Spinal Degeneration in Asymptomatic Populations. Am J Neuroradiology, 2014.

Let's Look at Our Anatomy



Relevant Anatomy

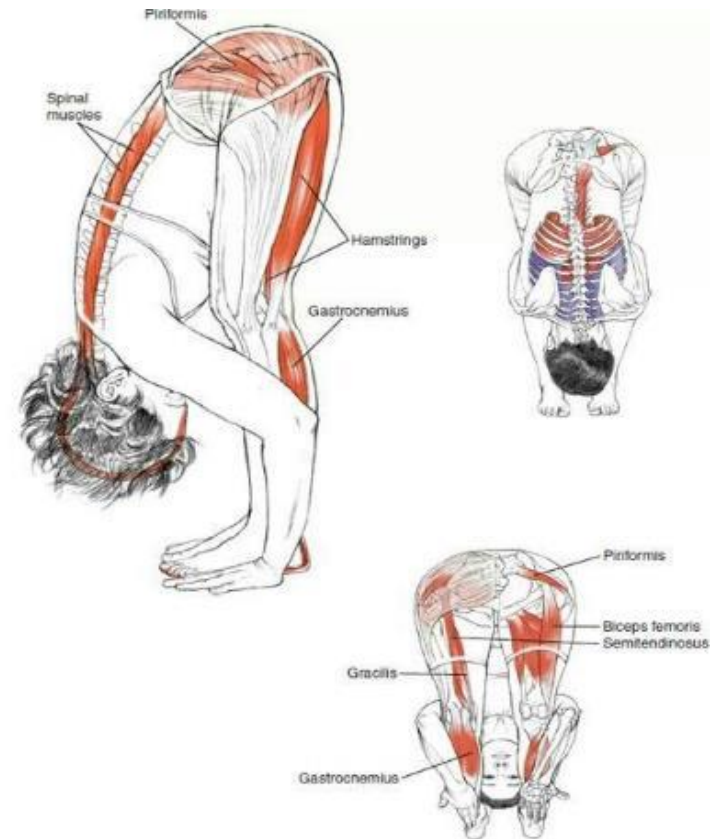
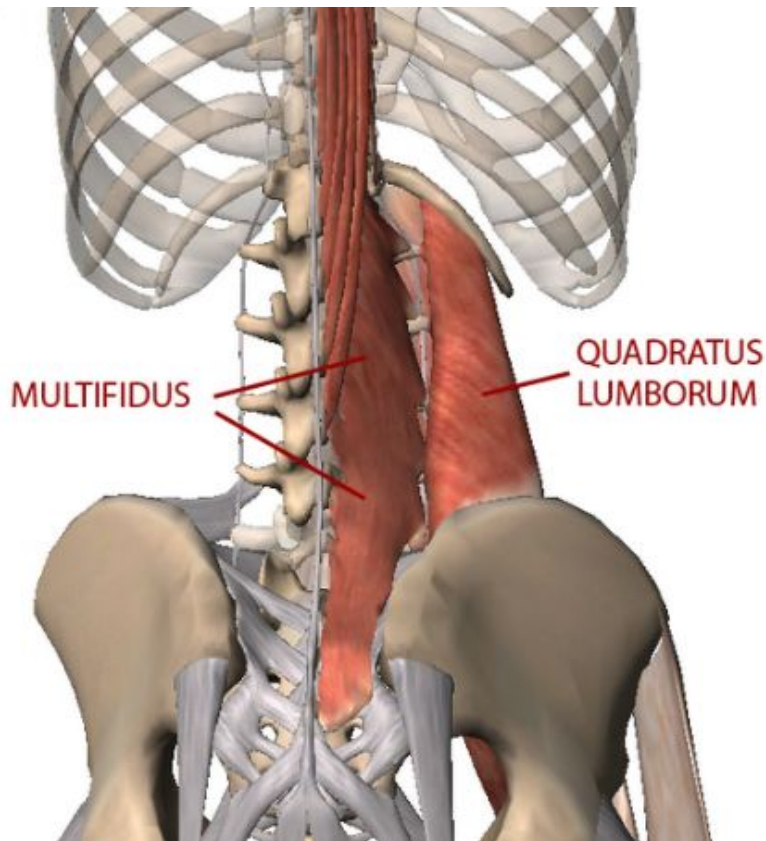
Facet Joints

Intervertebral Discs

Intervertebral Foramen

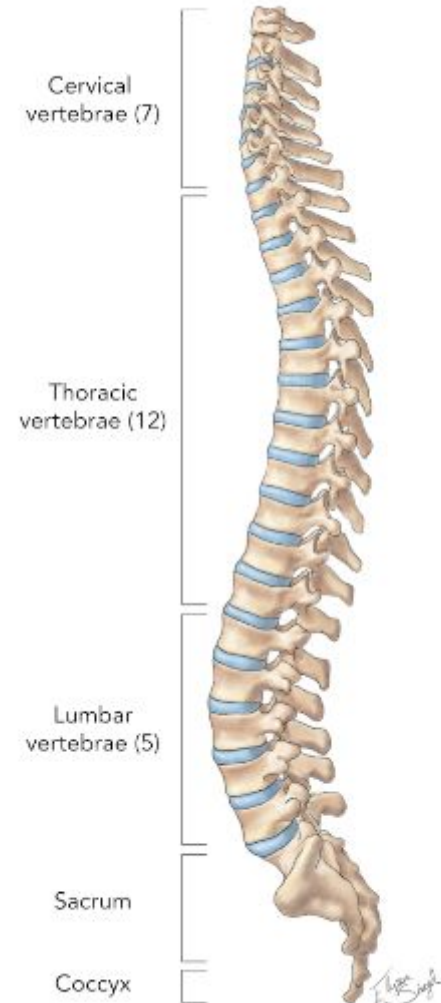
L1 – L5 Nerve Roots

Let's Look at Our Anatomy

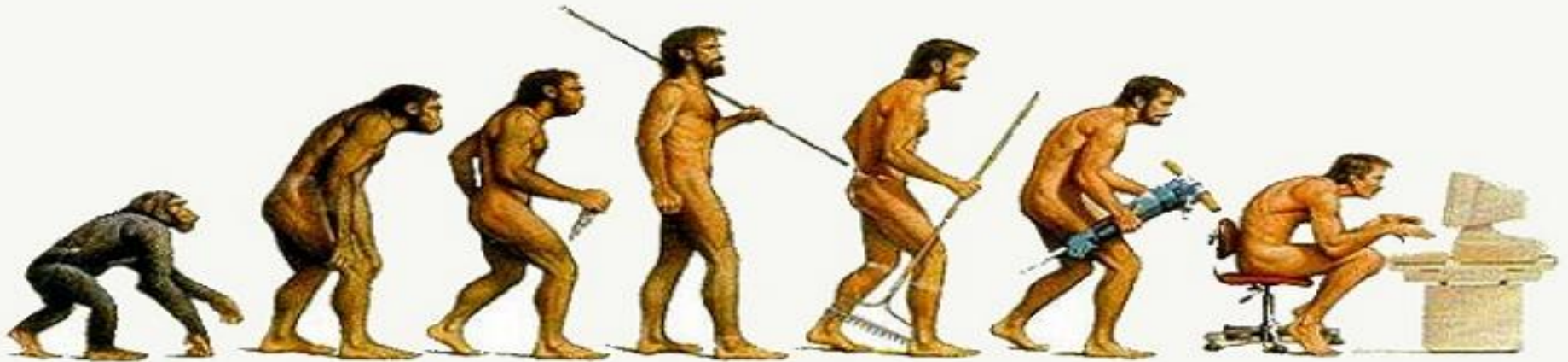


Assessment of the Spine

1. Is my Lumbar Range of Motion Appropriate?
2. Are the joints above and below (thoracic spine and hips) moving appropriately?
3. Do I have neuromuscular control of the spine and surrounding joints, with and without load?



The volution of the skeletal structure



- Your body is a miracle of nature and is one of the most adaptable and resilient things on earth!
- Your body will adapt to whatever stress is placed on it. Therefore, your tissues will adapt to the positions they are in all day long.

SPINAL MOBILITY

Extended



Neutral



Flexed



Thoracic
Extension



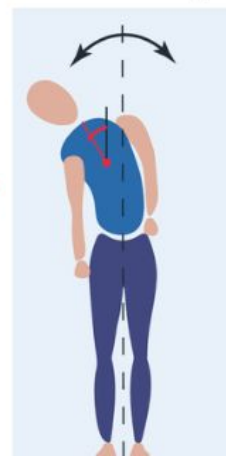
Thoracic
Flexion



Thoracic
Axial Rotation

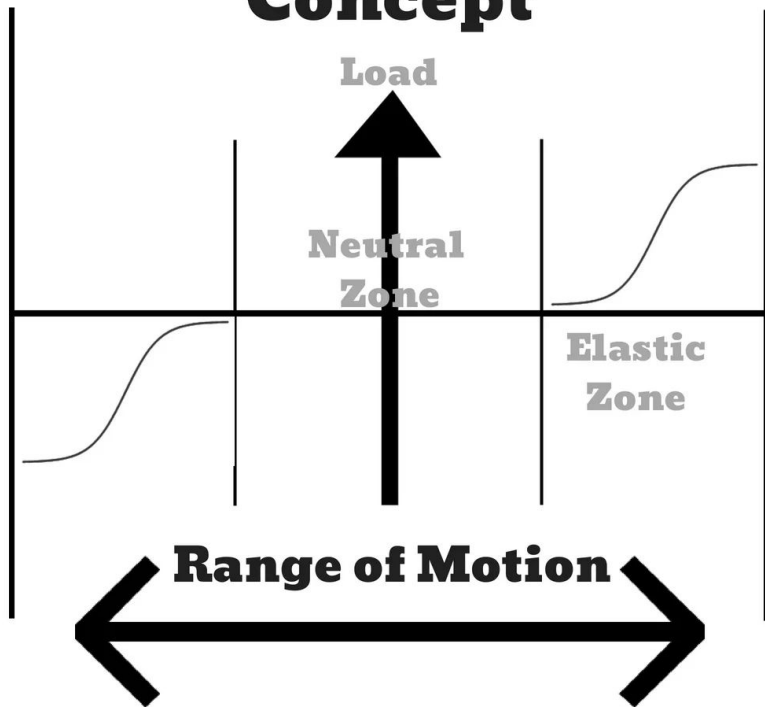


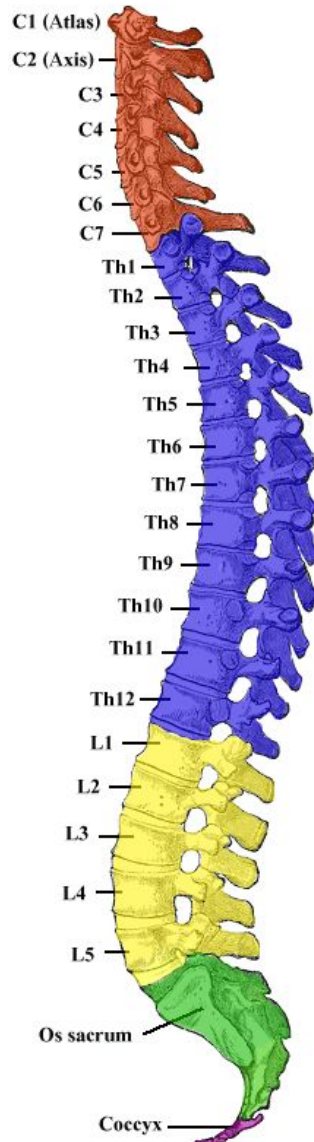
Thoracic
Lateral Bending



SPINAL STABILITY

Spinal Stability Concept





TAKE “BACKS”

“Back pain doesn’t mean your back is ‘damaged,’ often just sensitized.”

“Your back is one of the strongest structures in your body.”

“Your back gets stronger with movement and avoiding movement may weaken your back and increase your pain.”

“Pain rarely is due to or associated with tissue damage.”

Questions??

