Regional Review of Musculoskeletal System: 
Lumbar Spine, Abdomen, and Pelvis
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Pre-Chapter Case Study

Chapter 1: Low Back and Lumbar Spine
(15 minutes CEU Time)

Subjective
A 32 year old male with primary complaints low back pain x 2 weeks. He cannot recall any specific injury, but he thinks it started from sitting on a barstool one hour prior to onset of pain. He notes pain on in his lower back (i.e. no radicular complaints) at 8 out of 10 which is worse in the morning. The patient reports difficulty standing after sitting and assuming supine position. The pain intensified significantly causing the patient to go to the emergency department. He was released from the emergency department and told to call his primary physician. The patient’s primary physician prescribed Toradol (20g QID) which decreased his symptoms.

Past Medical History:
10 year history of lumbar pain, due to partially ruptured disc. Fractured ankle 10 years ago

Objective
Observation: Moderate lateral trunk shift to the right

Palpation: Moderate tenderness over the left paravertebral musculature of the left lumbar spine. No tenderness in either buttock.

Gait: Within normal limits with no antalgia noted. The right lateral shift was present during gait.

Lumbar spine AROM: Significant limitation in forward bending (0°) and backward bending (10°) secondary to severe pain (pain at end range); Moderate limitation in rotation (30°) and sidebending (35°) bilaterally with minimal pain.

Strength: Lower extremity strength was assessed at 5/5 through all major muscle groups

Neurological: Reflexes were 2+ and symmetrical for patella and Achilles. Lower extremity sensation was intact to light touch

Special Test: Positive left Slump Test

Joint Mobility: Lumbar spine joint mobility was found to be within normal limits
What are you suspecting? List the top diagnosis

What evidence suggests that the low back pain is mechanical in nature?

What evidence suggests that the low back pain is nonmusculoskeletal in nature?

### Treatment

**Visit 1:**
Patient was given the following interventions:

- Prone in extension on elbows ~ instructed to complete at home
- Correction of lateral shift in standing ~ caused increased pain in the lumbar spine and the left hip

**Visits 2-5:**
Patient was seen 3x for 2 weeks and during that time told to progress to prone pushup with elbows straight

Outcome: low back pain decreased to a 6 out of 10 and some decrease in lateral shift was noted (maybe)

**What would you expect to see in 6 visits within 2 weeks given your diagnosis?**

**Visit 6:**
On 6th visit, the patient arrived complaining of left wrist pain. He thought it was related to the prone extension exercises although he felt that he did not perform the exercise too much to warrant such pain

Left wrist appeared warm and swollen with reports of exquisite pain upon passive and active movement and to the touch. Patient denied having a fever or experience a recent fever.

Now what are you suspecting?
Where do you go from here?

Notes: