

The Leaning Low Back

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Often, when a patient presents with lower back pain, we can expect to see some amount of sideways tilt - often referred to as an antalgic lean. It is understood that this lean is both a conscious and a reflexive protective mechanism of the body to reduce the pain and prevent more irritation in the back. I understand that there is a spectrum of disc injury - from bulge to protrusion to herniation to actual fragmentation. There still seems to be a great deal of debate and dissent over the actual definition of each term, as they overlap.¹ Different areas of the country use different terms for the same condition. For sake of continuity in this article, I will use the term *herniation*.

Statistics from Evans' text tell us that most lower back herniations [occur at the L4-5 or L5-S1](#).² A herniation at L4-5 will compress the L5 nerve root, [causing pain](#) through the L5 dermatome (lateral leg and top of foot).³ L5-S1 herniations will affect the S1 nerve root and cause pain through the S1 dermatome (outside of ankle and foot).³ It is estimated that [60 percent](#) of patients with lower back pain will have some degree of an antalgic lean. The examiner needs to determine the side of pain and observe whether the patient leans toward or away from the pain. This will help determine if the herniation is lateral or medial to the nerve root prior to diagnostic imaging. If a patient reports back pain with no lean, and you suspect a disc herniation, have them lean forward. This motion will stretch the nerve roots over the herniation, causing pain. If the bulge is medial or lateral, the patient will lean to reduce this pressure.

Lateral: If the herniation is lateral to the nerve root, the patient will lean away from the pain, pulling the nerve root toward the midline of the body and away from the pressure of the disc material. The patient may also buckle the leg on the side of pain to further reduce traction of the nerve.

Medial: If the herniation is medial to the nerve root, the patient will lean toward the side of pain - as this will ease the tension of the nerve being pulled over the herniated disc material.

Central: if there is a central herniation, the patient will tend to stand very stiff and straight, with a slight forward lean to reduce the pain. They will resist standing upright due to the increased pressure and pain.

Of course, there are always variables and exceptions to the rule, but this can serve as a quick indicator of the discal component of a lower back pain complex. Obviously if there is any question of a herniation, you will need to pursue appropriate functional and orthopedic evaluation, possibly before treating. Diagnostic studies may also be indicated. A disc herniation is not a contraindication to acupuncture, but other treatments may be necessary. There are no quick shortcuts in a good examination. Take the time to fully evaluate the patient so that your diagnosis is correct, your treatment is appropriate and your patient will thank you for your quality care.

References

1. Current Diagnosis and Treatment of Back Pain. Co-Sponsored by Delaware Chiropractic

- Society and Delaware Open MRI. June, 2007.
2. Evans RC. *Illustrated Essentials in Orthopedic Physical Assessment*. St. Louis: Mosby, 1994.
 3. Hoppenfeld S. *Physical Examination of the Spine and Extremities*. San Mateo, Calif.: Appleton & Lange, 1976.

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