



BACK PAIN

Lower Back Pain: Clinical Gems From Dr. Phillip Snell

Marc Heller, DC

I recently took an online class on the lower back, with focus on discogenic low back pain, by Dr. Phillip Snell. I cannot possibly give you the eight hours of information and 300-plus slides in my 1,000 words, but I will give you a bit of any overview. I loved this class. Dr. Snell manages to both review the extensive literature and give you a clear, practical approach. The online class is referenced at the end of this article.¹

I've italicized material I pulled directly from the slides of the class. The rest is my commentary. So many patients have lumbar axial disc pain, which is missed and then mistreated, both by chiropractors and the medical community.

Prevalence of Lumbar Disc Pain

"While discs can be attributed to perhaps 10% of ALL back pain, when you consider back pain that is severe enough to cause one to seek care, then we see that the disc is causal for 50% of that back pain." - Michael Adams, PhD²⁻³

Disc pain is the pain that is severe or chronic enough to require care. These are the patients you see over and over for back pain, who can't get past it. These are not the simple pain cases that resolve with one or two adjustments.

Disc pain usually presents as low back pain. True sciatica, with hard neurological signs, is much less common. So many practitioners only consider the lumbar disc if the patient presents with sciatica.

Thoughts on Imaging

Dr. Snell extensively reviews the evidence around imaging. Imaging, even MRI, is very imperfect in its correlation with pain. Imaging is useful, but is just one piece of the total picture.

*Prevalence of disc bulges in asymptomatic populations range from 20% in young adults, to over 75%, in patients older than 70 years of age. But a meta-analysis found a prevalence of disc bulges in 6% of asymptomatic populations, and 43% of symptomatic populations.*⁴

What Injures the Lumbar Disc?

*"Severe or repetitive compression + flexion injures the disc." - Adams and Hutton, 1982, 1985*⁵

Pure compression, a sudden fall, without flexion, is more likely to injure the end plate. (This is another diagnosis that is commonly missed.) A painful disc is usually an inflamed disc. Is your patient inflamed? Systemic inflammation makes every condition both worse and less amenable to treatment.

How do your patients present? Most disc patients sit into their disc pain, aggravating it by sitting and moving in flexion. Watch their default sitting posture in the waiting room and on your table. Others have compensated with hyperextension and excessive thoracolumbar muscular tone, which can lead to Maigne's syndrome, irritation of the cluneal nerves, thus causing flank and buttock pain.

History and Physical Exam Findings

History of (H/o) locked back, H/o lifting injury, H/o sciatica, H/o antalgia. Pain worse in the AM, Pain worse getting up/down from a chair, Pain rolling over in bed, Pain getting in/out of car.

Physical exam findings:

1. Observation findings: We are looking for a dysfunctional movement pattern, in which the patient does not control lumbar flexion. They do not hip hinge properly. They allow the lower lumbar spine to flex forward.

- Watch the patient get up from their seat in the waiting room. Do they maintain neutral or bend forward into flexion as they rise? Do they grimace with pain as they rise?
- In the treatment room, watch them take off their shoes.
- Toss a pen on the floor and ask them to pick it up.
- Look for fear or uncertainty at the prospect of bending forward.

2. Physical exam highlights

Does flexion or repetitive flexion hurt? The pain could occur on the return from flexion. Does passive extension help, by either providing relief or at least centralizing the pain?

Compression testing. The patient is seated, they pull up on the seat pan, Compare this test in lumbar flexion vs. upright. (Flexion and compression irritate the disc.)

Muscle testing of both plantar flexion and foot dorsiflexion. Do this standing, Dr. Snell recommends 20 reps for the plantar flexors and five reps for dorsiflexion or "toe tap." Manual muscle testing is inherently not as accurate for assessment these muscles, especially the strong plantar flexors.

Prone instability test, the "magic thumb" test. Lumbar disc patients often exhibit functional instability. You are perturbing the segment with your oscillation and pressure. The unstable spine does not like this. I have noticed that this sign will disappear as the patient improves and gets less inflamed. Stu McGill explains this test on video

(<https://www.youtube.com/watch?v=LrmMLHybk1o>) starting at 19:30 for about 90 seconds.

Straight-leg raise / sciatic nerve tension. Dr. Snell reviews Michael Shacklock's well-researched methods. These tests provide so much information about sciatic nerve irritation, and can lead to specific nerve-oriented therapies.

Extension-Intolerant Lower Backs

Dr. Snell briefly reviews the various types of extension-related pain. These include Maigne's syndrome, lumbar facet pain, sacroiliac pain, and symptomatic spondylolisthesis and spinal stenosis.

The history here will be different. Generally, the patient tolerates sitting and hurts on upright activities, such as walking and standing.

Dr. Snell has a fascinating theory - that the threat of the disc injury and its effects on the nerves, and the basic ability to move and walk, creates compensatory protective changes involving lumbar hypertonicity that leads to some of the extension-intolerant low back patterns.

Treatment: An Oversimplified View

A simple strategy; Provide relief to the unhappy neuro, then re-train the motor behavior.

Find a pain-relief strategy, usually some variation on McKenzie extension. Teach the patient how to move and bend properly, so they stop continually re-injuring the disc. The basic movement principle is to teach the patient to hinge at the hips, not in the lumbar spine. This involves training them to use their big, strong gluteal muscles in lower back movement, rather than the lumbar spine muscles.

References

1. Snell P. "Assessment and Intervention for the Painful Lumbar Disc." Online CE course: <https://prochiroonlinece.thinkific.com/courses/clinical-companion-to-fixyourownback-com>.
2. Adams M, et al. *The Biomechanics of Back Pain*. Churchill Livingstone, 2012.
3. Interview with Michael Adams by Phillip Snell: <http://goo.gl/xzVrpF>.
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5. Adams MA, Hutton WC. Gradual disc prolapse. *Spine*, 1985;10:524-31. Also: Adams MA, Hutton WC. Prolapsed intervertebral disc; a hyperflexion injury. 1981 Volvo Award in Basic Science. *Spine*, 1982;7:184-91.

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