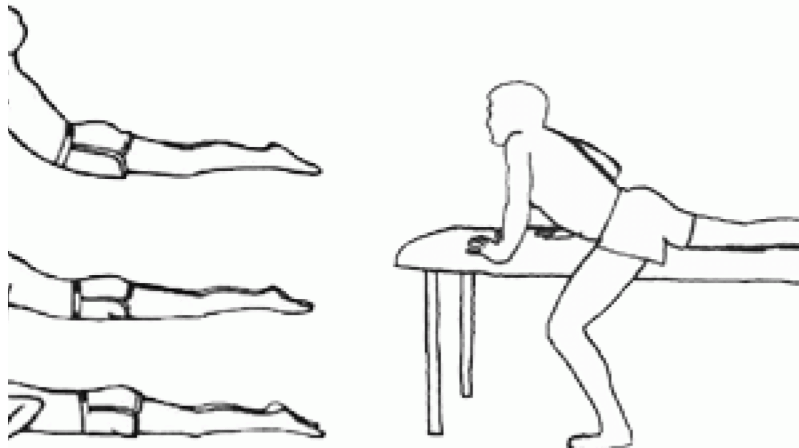


# Dynamic Chiropractic



patient performing McKenzie extensions (left) and one-leg press-ups (right)

SPORTS / EXERCISE / FITNESS

## Discogenic Pain: Inflammation and Exercise

Marc Heller, DC

You cannot effectively treat a disc problem with adjustments alone. The following continues my overview of discogenic pain management. My two previous articles in this miniseries outlined diagnosis and adjustments via axial distraction; they are referenced below.

### Inflammation Control

Inflammation is a key issue in discogenic pain. In a classic disc herniation, the nuclear material has breached its container, the annulus, and has reached the epidural space. In internally disrupted discs, if the patient has constant pain, he or she is most likely dealing with similar chemical reactivity.

This "foreign" material creates a dramatic autoimmune type of reaction, with enormous levels of inflammation that can persist for a long time. We can address this with nutraceuticals, such as bromelain; a mixed enzyme preparation, such as Wobenzyme; or curcumin- and ginger-based supplements.<sup>1</sup> Another tool I find effective to reduce inflammation and pain is frequency-specific microcurrent, as developed by Carolyn McMakin, DC. I'll treat the patient in the office with specific frequencies, and often have him or her use a home unit.

Over-the-counter (OTC) pharmaceutical anti-inflammatories are often helpful as well, although disc pain may require that the patient take them for a fairly long period, at high doses, which the stomach may or may not tolerate. Prescription anti-inflammatories can be used, especially the Cox-2 inhibitors, which are often easier on the stomach. Long-term use of OTC or prescription nonsteroidal anti-inflammatory drugs (NSAIDs) are dangerous, and can lead to illness or death from bleeding ulcers and liver and kidney damage. When I recommend short-term use of NSAIDs, I always warn my patients about the risk of long-term use.

If the patient tends to be someone who inflames routinely, you should consider dietary modification,

including supplementation with flax and fish oils. You know how these patients are; one little thing, and the whole body overreacts. The other variation on this theme is the patient who is always achy and tight. When he or she has lumbar discogenic pain, the whole system goes haywire. This is a critical issue for most of our chronic pain patients. Their entire biochemical systems tend to inflame too easily. Even if you don't specialize in nutrition, you must address at least the diet and supplement basics to help these patients. If you don't want to deal with these issues, find another practitioner to refer to for this service. David Seaman, DC, wrote an excellent series of six articles for DC on this topic; I highly recommend you read them, and begin using the principles discussed.<sup>2</sup>

Sometimes, the severe pain and inflammation from a disc problem goes on and on, despite the use of OTC or prescription NSAIDs and nutraceuticals. In these cases, my adjustments, no matter how precise and ideal, will not give long-lasting relief or create corrections. For these patients, I will work with an MD who does epidural steroid injections. Epidurals tend to be more effective when there is a substantial leg-pain component. These can be done caudally; a more general steroid injection can be done in office. This is less expensive. Most of the pain specialists or spinal orthopedists usually use a more specific transforaminal epidural directly into the foraminal space, which is done with fluoroscopic guidance in a hospital or surgical center. Either one of these techniques places a significant quantity of steroid directly into the epidural space, and can dramatically quiet the inflammation. Occasionally, it completely eliminates the pain. More often, it gives the rest of your adjustments and therapies a chance to work. The steroid effects last about three to four weeks, and the procedure can be repeated, if necessary.

I have detailed medical procedures here, which I do not perform as a DC. I appreciate having good referral relationships with the local anesthesiologist, neurologist, spinal orthopedist, and family doctors. My philosophy may differ from these colleagues, but together, we can often help the patient. The key question is always: "What does the patient need, right now" Pain control and inflammation management is frequently best handled in a multidisciplinary manner.

#### Reduce Biomechanical Stress on the Disc

Whenever a disc is irritated, you must address other biomechanical dysfunctions. Briefly, this includes addressing lumbar and full spine subluxations, ideally with nonrotary, low-force adjustments. Don't forget to balance the pelvis; an unstable sacroiliac joint can stress the discs. The lumbosacral dura and its attachments can also affect the disc; I'll address these influences in my next article.

#### Exercise Rehab

Patients with discogenic pain tend to have tight, weak lower back musculature. What can you do about this? Do your patients understand proper low-back mechanics; do they use their transverse abs and multifidi properly? Even in fit people who receive good chiropractic care, those with torn discs frequently or continuously experience mechanical and/or chemical irritation. Thus, they are neurologically inhibiting certain muscles, such as the multifidi, transverse abdominals, gluteus maximus and gluteus medius, and creating hypertonicity in other muscles, such as the iliotibial band region, piriformis, quadratus lumborum, psoas and rectus femoris. This was Professor Valdimir Janda's brilliant observation: Whatever the pathology, the same musculature goes haywire in a predictable way.

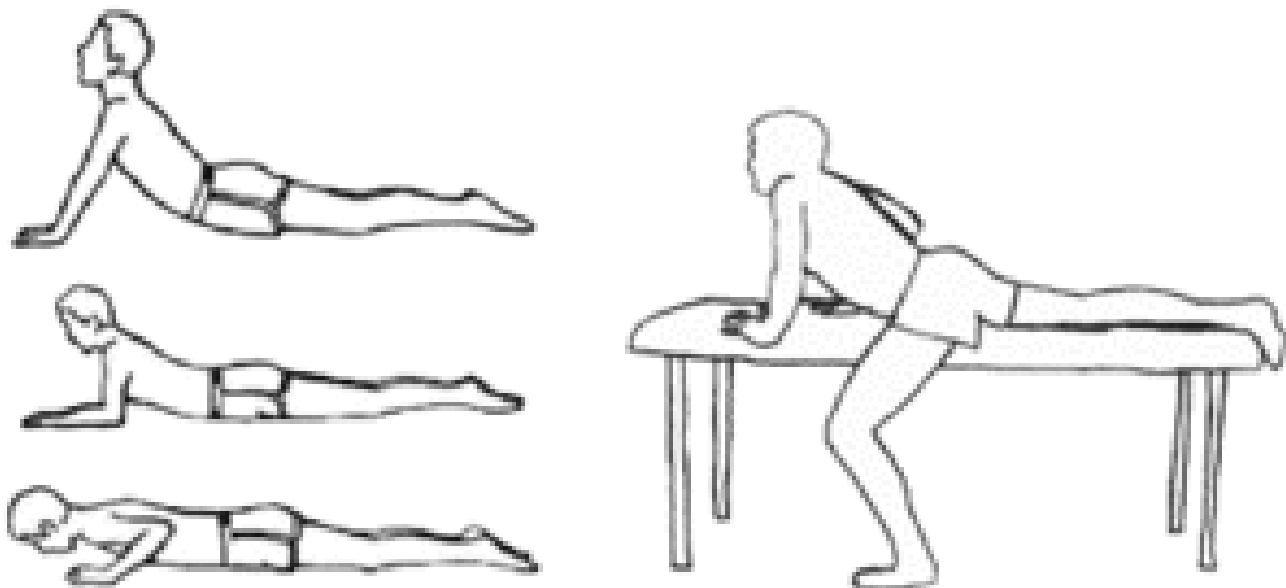
"Core stability," "abdominal hollowing" and "abdominal co-contraction" are all phrases for ways to

train the core musculature of the lower back and abdomen. These exercise approaches have excellent literature documentation. (This topic is too large for me to try to address here. You need a hands-on seminar to learn these rehab tools. I recommend Dr. Craig Liebenson's articles, in this journal and others.<sup>3</sup>) Learning to use the appropriate trunk muscles, and "unlearning" the "overfiring" of the hip and leg muscles, can be quite difficult. This involves changing deep locomotor patterns. This may be best coached by a DC, PT or athletic trainer who specializes in spinal stabilization, or a well-trained Pilates instructor. Once you learn, you can teach this in your office, but it is quite time-consuming and often challenging for the patient. I'll usually teach the basics, which makes a big difference for most of my patients. I refer out those who need further training and reinforcement.

Patients who are in pain often stop moving or exercising, out of fear. Of course, this creates further congestion and accumulation of biochemical pain products, such as lactic acid. Do not reinforce this behavior. The old chiropractic adage, "Let's wait 'til your joints are properly aligned to start exercise" is hopelessly out of date. The muscles and joints are intimately related, so find and prescribe exercises that do not cause pain. Pelvic tilts to tolerance, in various positions (sitting, supine, and on all fours), are a good starting point. Teach the patient how to keep movement going through "micromovement" - little movements that can be done while sitting or lying down.

I'll focus on an exercise that is easy to learn and do properly. The McKenzie method is well-documented as effective for the lumbar disc. A simple way to use this method is to establish bias, by assessing whether repetitive extension or flexion motions create more leg pain, or more pain in general. If you find flexion makes the person feel worse, either with increased pain, or more radiation further down the leg, the answer is clear. Extension may be uncomfortable in the lower back, but if it helps pain in the buttock or leg, it is probably indicated.

Have the patient perform extension exercises, starting with McKenzie extensions. McKenzie focuses on whether flexion or extension either centralizes the pain, or causes it to go further into the periphery. Centralizing the pain is a good and desired result; more pain down the leg is bad. If one side is obviously more fixated, you can use a variation of McKenzie: one-leg press-ups, with the straight leg on the fixated side. These are relatively simple exercises, and they are usually well-tolerated by patients in pain. There are courses available that teach Mckenzie's work; I recommend that you take one. These exercises should be done hourly when the patient is in acute pain. Prescribe 10 repetitions, several times per day, holding at the top for a few seconds. This exercise attempts to move the nuclear material further anterior, thus reversing the creep effects of the disc on the sitting posture.



*A patient performing McKenzie extensions (left) and one-leg press-ups (right).*

Stretching the piriformis is often helpful in any lower back condition. Make sure the patient does this with the spine in neutral, not in flexion. I illustrated my favorite piriformis stretch in a previous article in *DC*.<sup>4</sup>

Management of your discogenic pain patients can be a challenge. These are not conditions that respond quickly and easily. You are the voice of common sense. Find out what the patient does all day, and help him or her modify the activity. Remind patients of their need to lie down periodically, and (ideally) to ice frequently. If they want to ignore or minimize the problem, remind them that a reinjury of the disc predisposes them to chronic pain.

Other related articles are listed below.<sup>5-10</sup>

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