

Changing the Mythology of Back Pain

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How many patients get the wrong treatment for back pain? How many fusions are done, with poor success rates, on patients who would have done better with chiropractic care, soft-tissue work and rehabilitation? How many needles are stuck into the patient for pain diagnoses and pain relief? How many people end up with bleeding stomach ulcers, liver or kidney disease due to NSAID overuse?

The corollary to the above is that there are some questions we really can do something about. How many patients see their chiropractor, get acute relief, but never really learn how to take care of themselves? How many of our patients do we really query about their activities of daily living, and how these activities could be modified to prevent long-term damage? How many of our patients do we fully assess for biomechanical tendencies that can contribute to long-term degenerative processes?

I believe that we, as a profession, do not provide enough patient education. I am not talking about marketing-oriented patient education or the report of findings that outlines a treatment plan, but about teaching the patient more about how they can get healthy and stay healthy. I'll focus on musculoskeletal issues, but I think that we also are far too brief with regard to the wellness/nutritional aspects of care. I include myself in this criticism. It's too easy to just see what is in front of you and focus on the pain, the adjustment, and what you can do to help the patient right now. This is a problem endemic in our whole culture - the bottom-line mentality, the profitability of the next quarter, the search for immediate gratification.

The Mythology of Back Pain

Back to the basics: the mythology of back pain. First, how do you talk about pain to your patients? So many patients come into my office with imaging studies, and talk about their "bulging discs" or degenerated spine. I attempt to "uninstall" this negative image. I attempt to remind the patient that well over 50 percent of asymptomatic middle-aged people have disc bulges or degenerative joint disease.¹ The myth is that there is a specific anatomical cause of most lower back pain. The reality is more complex. Anatomy often contributes, but poor neuromuscular dysfunction is what determines who has recurrent or chronic pain. This is where we stand out. Adjustments, soft-tissue work and rehab are the tools to improve function and thus change long-term pain.

It can be easier to point at a clear-cut visual such as an X-ray and say, "Here is the source of your pain," but if your understanding of back pain is based on an updated understanding of current neurological concepts, a better explanation is called for. How do you translate the concept of muscular inhibition or facilitation, of upregulated nociceptors, of altered neurotransmitters and neuromodulators, into simple language your patients can understand? I invite you to use my "Talk Back" forum on Chiroweb.com (www.chiroweb.com/columnist/heller) to tell others how you explain the relationship between your patient's pain and their functional deficits.

Spinal Rehabilitation

If the problem - the cause of chronic pain - is abnormal function, what is the answer? When I adjust, I am creating movement. When I work on soft tissue, I am changing the nature of these tissues and everything they connect with. When I teach my patients how to move, I am changing their neuromuscular habits. Movement, adjustments, soft-tissue work - all of these affect upstream spinal cord and nervous system patterns.

The answer is to do all that you and the patient can do to restore normal function. When I talk to my patients, I am always trying to empower them. When the patient asks me, "Is my sacrum 'out?'" I switch to a dynamic point of view. I'll say, "Your sacrum is stuck and your muscles are not firing properly. Here are the movements you can do to free up the stuck area, and here are the exercises to help stabilize." If the sacrum is "out," the only solution is an adjustment. If it's stuck, the patient can actively help generate mobility. If it's unstable, the patient can learn how to stabilize it. This is obviously just a part of the picture. When I adjust, I am creating movement. When I do soft-tissue work, I am changing the nature of these tissues. As stated earlier, movement, adjustments and soft-tissue work all affect upstream spinal cord and nervous system patterns.

I am a functionalist more than a structuralist. I try to focus on how I can help the patient's neuromusculoskeletal system function better. I attempt to reprogram the software and wetware aspects of pain and nervous system function.

I am currently reading Craig Liebenson's new edition of *Rehabilitation of the Spine: A Practitioner's Manual*,² an incredible resource and reference. Craig reminds us that most of the day-to-day pain we see can be helped by changing the patient's behavior, especially their motor habits. The book includes many chapters by different authors who address different aspects of self-care strategies.

Craig outlines a couple of key self-care strategies that are quite easy for any of us to integrate. One aspect involves teaching what he calls "spine-sparing strategies" to improve posture and reduce chronic strain patterns. If the patient is bending over with poor posture all day long, they are bound to get into trouble.

The other aspects of the strategy include reassuring the patient that movement (reactivation) will help. So many of our patients fear movement. There are exercises that can help patients in acute pain, such as a simple basic pelvic tilt, done either supine or in a quadruped position, going only as far into flexion or extension as is easily tolerated. McKenzie extension, when it centralizes or reduces pain, is another great acute-pain exercise. Patients with the severe pain of an acute disc can use this basic exercise to get out of antalgia and begin to heal. It is scary to move when you hurt this much, but one of our main jobs is to reassure the patient that these exercises are safe.

For more chronic or recurrent pain, we know that a critical factor is loss of motor control. A simple lumbar strain leads to atrophy of the multifidi, even when the pain goes away quickly. Anyone with recurrent pain needs rehab. If you teach the patient self-care, you can change their life forever.

I will attempt to describe my take on the basic principles of spinal rehabilitation. First, teach the patient to fire their core, to brace their abdomen, while they maintain lumbar neutral. The key to this is generating a mild contraction of these core muscles and not overfiring the lumbar extensors or the gluteals. Second, while holding the lumbar spine in neutral, start to add functional movements of the limbs. This can be done supine, with marching movements or heel slides. This can be done with the patient on all fours, reaching with the arms and legs. Finally, the patient can graduate to standing exercises. The goal is to integrate this improved core motor control into daily movement.

Getting Started

I highly recommend you visit www.LASportsandSpine.com, especially the exercise pages. This site is a great resource for pictures and simple lay-oriented descriptions of basic exercises. I really appreciate that Dr. Liebenson so generously shares this information.

I see many patients who have one of two basic failing strategies. The first is the couch potato who doesn't exercise and just avoids pain, narrowing their life. The second strategy is that of the "more is better" exerciser. This person often goes to the gym, performs aerobics or has a personal trainer, but is doing exercises far beyond the capacity of their motor control system. They may be building strength, but they are overusing their superficial phasic muscles and not learning motor control and/or endurance for their core. Even Pilates, which is designed to start from the core, is usually performed incorrectly.

You don't have to be a rehabilitation specialist or set aside a special room to start to integrate these ideas. You just have to begin to teach your patients how to move properly. If you are just beginning to integrate exercise, I recommend you read up on the hip-hinge exercise at www.LASportsandSpine.com and start to teach your patients how to get up and down from a chair while maintaining lumbar lordosis. The spine stabilization exercise is another well-written simple set of core exercises. If you haven't studied McKenzie, there is a good basic article on that method of acute pain exercise as well. What are you waiting for?

P.S. Another great resource is a lay-oriented text called *Explain Pain* by David Butler. This book, from the Noi Group, goes into great detail, with creative artwork, about how our nervous system misinterprets pain signals and generates chronic pain.

References

1. Bigos S, Muller G. Primary Care Approach to Acute and Chronic Back Problems: Definitions and Care. In: Loeser JD (ed). *Bonica's Management of Pain*, 3rd ed. Lippincott, Williams and Wilkins, 2001.
2. Liebenson C (ed). *Rehabilitation of the Spine: A Practitioner's Manual*. Lippincott, Williams and Wilkins, 2006.

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