

A Holistic Approach to Chronic Back Pain

By James T. Prado, D.C.

Humankind has been plagued by back pain for thousands of years. However, Western scientific methodology has only recently been applied to its study, beginning in the mid-1600s with Rene Descartes and his work with human cadaver dissection. In 1895, chiropractors were the first to use diagnostic x-ray to visualize the skeletal anatomy of the spine. The addition of computer technology in the early 1970s led to the use of computerized axial tomography, or CAT scanning. Soon after, Magnetic Resonance Imaging, or MRI, was unveiled. More recently, the molecular structure of the intervertebral disc has been completely and accurately defined. Needless to say, doctors and scientists have been intensely studying back pain and those who suffer with it for over 350 years and still they have been unable to stop the growing back pain epidemic.

In the search for the cause of back pain, most of the emphasis has been on the study of people *with* back pain. What about those who don't have back pain? It has only been recently that scientists have begun studying individuals *without* pain in hopes of finding out more about those who suffer with it. These studies, combined with studies assessing the impact of psychological and social factors, have begun to slowly shift emphasis away from the current biomedical model of back pain diagnosis and treatment toward a more holistic approach.

It is now an accepted medical fact that millions of people with degenerative, bulging and herniated spinal discs have no pain at all.¹⁻⁵ There are people walking the street every day with meniscus tears in their knees⁶⁻⁸ and tears in the rotator cuffs of their shoulders⁹⁻¹¹ who function normally with no pain! Medical science has begun to question the significance of many of the physical ailments that have been blamed for chronic pain. Countless individuals walk the streets everyday, pain free, but may still have spinal stenosis,^{1,2,3,5} degenerative disc disease,¹⁻⁵ spondylolisthesis,¹ bone spurs⁵ and transitional lumbar vertebrae.¹² Although these facts have been published in prestigious medical journals they continue to go largely ignored. Most doctors who treat back pain patients just don't know what to do with these findings. The studies don't fit the typical paradigm of belief; so, too often they are tossed aside.

In 1994 I was at a back pain conference where an internationally known spinal pain researcher and epidemiologist reviewed the literature on back pain. He showed us study after study which revealed asymptomatic individuals (people without pain) who possessed the physical and mechanical factors that I have been taught are responsible for back pain. Finally a doctor in the audience raised his hand and asked, "If these things aren't the cause of back pain, then what is!?" The researcher calmly responded that psychosocial factors appear to play a greater roll than physical factors in the initiation and perpetuation of chronic back pain. Over the last ten years there have been numerous papers showing a significant relationship between back pain and stress, anxiety, illness behavior, depression, psychological distress and psychological job demands.¹⁴⁻¹⁷ Eleven countries have developed back pain treatment guidelines, and all eleven agree that the risk of developing chronic back pain is largely determined by psychosocial factors.¹⁵ Even with all of this data regarding the psychosocial influences on back pain, most clinicians are reluctant to discuss these issues with their patients.

Let's face it, we live in a society where it is considered a sign of weakness, or even a character flaw, if our minds or emotions adversely affect our physical health. In fact, the suggestion that emotion is playing a roll in pain production is like telling someone his or her pain isn't real. Most back pain sufferers would feel more comfortable telling family and friends that a herniated disc caused their back pain rather than saying their pain is related to suppressed anger! Although things have recently begun to change, we still live in a culture where it is far more acceptable to have physical pain than it is to have emotional pain. Doctors with knowledge of the current back pain literature, and a little holistic insight, may suspect that their patient's personality

traits, emotional status, and level of stress play a roll in pain production. Still many of these doctors are reluctant to take the risk of promoting a theory unsupported by our current paradigm - a false paradigm on the verge of collapse. If your doctor suggests that your pain may have emotional origins are you likely to go shopping for a new doctor?

Every now and then a doctor or therapist comes along who isn't afraid to step outside the paradigms of our current biomedical philosophy in search of a new approach. Our society is often unkind to these original thinkers. At best they are considered mavericks or, at worst, quacks. Those who do succeed in defining a new path in medicine are considered geniuses while those who fail are often guilty of malpractice. An even greater deterrent to fresh and original thought is the risk of blaspheming the philosophical tenants of high-tech biomedicine and becoming ostracized from its elite club. Could this be why there has been so little progress in the attempt to alleviate the ailing backs of the Western world? Few doctors have been willing to take the risk of stepping outside the current medical model of back pain treatment. One doctor who has taken this risk is John Sarno, MD of New York City. Dr Sarno is the author of Healing Back Pain: The Mind-Body Connection. In his book he suggests that our personalities and suppressed emotions, such as anxiety, anger and rage, may be responsible for the majority of chronic back pain. As you might imagine, many of Dr. Sarno's colleagues would prefer the word quack to maverick.

Like any other good doctor, John Sarno does not deny that serious disease processes or injuries can cause back pain. The treatment of those found to be suffering from spinal pain related to a more serious disease or injury is outside the scope of this discussion. Through careful history taking and examination, these individuals must be identified and referred for specialized medical intervention. However, the fear of serious disease of the spine is usually unfounded. It is estimated that less than 2% of all back pain patients turn out to have a serious underlying pathology.²⁰ It is also estimated that only one back pain case in 100 will benefit from surgery.²⁰ Why, then, do many of my patients harbor the irrational fear that they might have cancer or might need spinal surgery? It is likely for the same reason that so many Americans live with constant anxiety about their health. We live with a health care system that emphasizes disease and sickness rather than health and wellness. Think about it. Our system would be more accurately labeled "sick care" rather than "health care."

It is precisely this anxiety about our health or pain, which ramps up the sympathetic nervous system, firing reflexes responsible for perpetuating the pain cycle. The sympathetic nervous system, along with the parasympathetic nervous system, make up what is known as the autonomic nervous system, or ANS. The ANS regulates most of the bodily functions such as blood pressure, gastrointestinal function, muscle tone and reflexive muscle tension, to name just a few. We have little or no conscious control over the ANS. It is largely controlled by our subconscious. The sympathetic component of the ANS mediates our "fight or flight" responses, which are the basis of our anxiety reactions. Anxiety is a medical term used to describe the physical and emotional response to forethought or anticipation. In simple terms, anxiety occurs when we fail to live in the present moment.

Dr. Sarno has discovered what my wife, a labor and delivery nurse and childbirth educator, has known for years: anxious patients have more pain. Dr. Sarno also sees a correlation between back pain and certain personality traits. He finds that highly conscientious people seem to have more back pain. It is the highly conscientious individual who goes through life taking on large amounts of responsibility, often at their own expense. Sarno believes that individuals over-burdened by excessive responsibility begin to develop a feeling of resentment, which may eventually grow into anger, and then, rage. Of course the "highly conscientious" individual will likely suppress this rage into the subconscious. It is precisely this suppressed rage, which Dr. Sarno believes ramps up the sympathetic nervous system triggering a neurological reflex. This reflex results in muscle tension, spasm and reduced oxygen supply to muscles, causing very *real*, physical pain.

If all this were true, then why would we use physical, chemical and surgical treatments for individuals with chronic back pain? Dr. Sarno believes that physical treatments only act to distract from the real causes of pain. Each time an individual suffering with back pain looks to a treatment addressing only the physical component of the pain, they will continually reinforce in their minds that their condition is purely physical. This often leads to fear-avoidance behavior and further disability. This is where Dr. Sarno and I only partially agree. I feel physical treatments, when accompanied by a true holistic approach, are very helpful in alleviating the fear of the pain. However, I do agree that total dependence on physical treatments will, at best, offer only short-term or temporary relief and may prevent the patient from ever addressing the true cause of his or her pain.

It is my contention, and the contention of a growing number of practitioners who specialize in the treatment of chronic back pain, that our present method of treating back pain (and most chronic pain patients, for that matter) is actually making the problem worse. Bed rest, for instance, has actually been shown to make back pain worse. On an almost daily basis patients walk into my office holding an MRI or x-ray report that states they have a disc herniation and degenerative disc disease. On the word of their doctor or physical therapist these patients have come to believe that the “abnormalities” visualized by these diagnostic tests are the cause of their pain. These patients usually have high levels of anxiety about their backs and live with constant, subconscious fear of provoking an episode of back pain. Many have literally become invalids because of their fear of their pain and what it might represent.

Chronic back pain patients often bounce between numerous medical specialists, physical therapists and chiropractors with each practitioner hoping to help them with a variety of treatments ranging from therapeutic exercises and manipulation to epidural spinal injections and surgery. When most of the treatments either fail or provide only temporary relief, doctors and therapists rarely, if ever, suspect that their patient’s lack of progress may be related to the patient’s fear-avoidance behaviors resulting from his or her own words.

You might wonder then: how would a chiropractor like myself treat chronic, recurrent back pain? Since a neurological reflex causes protective muscle tension or spasm¹⁷ resulting in pain, it would only make sense to break or re-route the reflex. This is something that spinal adjustments or manipulation does quite well. However, the reflex may re-fire the next time suppressed emotion ramps up the sympathetic nervous system. Any true holistic treatment of chronic back pain must include a detailed, understandable explanation of the cause of pain and, just as importantly, an acknowledgement of what does not cause it. This will reduce the patient’s anxiety about his or her pain, further calming the autonomic nervous system and the attendant reflex responsible for protective muscle tension.

Recent studies suggest that back pain patients who have been given information which reduces fear and promotes early return to activity will experience more effective relief of back pain than those undergoing conventional medical treatment of their pain.^{18,19} You might ask, how could this be? . . . information more effective than a physical treatment? These studies suggest that using information to reduce a back pain patient’s fear will reduce what is known as fear-avoidance behaviors and promote an earlier return to a healthier and more productive lifestyle, ultimately avoiding the cycle of chronic pain.

Finally, let me present a spiritual component of the holistic approach to chronic back pain. I once heard it said that spirituality could be defined as how we choose to live our lives. Our experiences, our joys and our pains shape how we choose to live our lives. How often do we hear of someone’s life taking on new meaning following an illness or tragedy? If you find validity in all that I have discussed thus far you must recognize that back pain can facilitate life change. Or, as I prefer to put it, chronic back pain is a barometer for how we live our lives. Back pain is a reminder to avoid suppressing our emotions and to encourage us to speak from our hearts. It reminds us when we are taking on too many responsibilities and veering from the path of balance in our lives. Most importantly back pain is a reminder to release our anxieties and live in the

present moment. After all, every great philosopher and theologian to grace the face of this planet has reminded us that happiness and contentment can only be found in the present.

1. Jensen, M et.al., NEJM, 1994,14:331(2): 69-73
2. Boden SD et.al., J Bone Joint Surg Am 1990 Mar;72(3):403-8
3. Borenstein DG et.al., J Bone Joint Surg Am 2001 Sep;83-A(9):1306-11
4. Boos N et.al. Spine 1995 Dec 15;20(24):2613-25
5. Greenberg JO et.al., J Neuroimaging 1991 Feb;1(1):2-7
6. Ludman CN et.al., Br J Sports Med 1999 Dec;33(6):414-6
7. Jerosch J, etal, Arch Orthop Trauma Surg 1996;115(3-4):199-202
8. LaPrade RF, et. al., Am J Sports Med 1994 Nov-Dec;22(6):739-45
9. Tempelhof S, et.al., J Shoulder Elbow Surg 1999 Jul-Aug;8(4):296-9
10. Yamaguchi K et.al., J Shoulder Elbow Surg 2001 May-Jun;10(3):199-203
11. Yamaguchi K et.al., J Shoulder Elbow Surg 2000 Jan-Feb;9(1):6-11
12. Bonaiuti D, et.al., Med Lav 1997 May-Jun;88(3):226-36
13. Boos N, et.al. Spine 2000 Jun 15;25(12):1484-92
14. Koes BW et.al., Spine 2001 Nov 15;26(22):2504-13; discussion 2513-4
15. Power C et.al., Am J Public Health 2001 Oct;91(10):1671-8
16. Pincus T et.al., Spine 2002 Mar 1;27(5):E133-8
17. Kandel & Schwartz, Principles of Neural Science, Pgs. 298-301, 1981 Elsevier Science Publishing Co., NY
18. Indahl A, et.al. Spine 1995 Feb 15;20(4):473-7
19. Burton AK Spine 1999 Dec 1;24(23):2484-91
20. Street, Hunt, Cherkin, Deyo. Back in Action : A Guide to Understanding Back Pain and Learning What To Do About It, 1991 University of Washington School of Medicine and Public Health