Dynamic Chiropractic

DIAGNOSIS & DIAGNOSTIC EQUIP

Evaluating Patterns of Function: Effects of Kinetic Chain Dysfunction on the Neck and Back

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As a chiropractor in school and at many seminars, I was taught that the cause of many problems we treat is due to spinal subluxation. Many principled chiropractors insist subluxation of the spine is what causes most problems (including back and neck pain), and they educate their patients to believe this is so. Many large practices have been built with this ideology and thus provided a basis of maintenance care in the chiropractic office. Many practice foundations are based on the writings and preachings of D.D. Palmer circa 1895. This is now 1998, and our understanding of biomechanics is much more sophisticated than it was years ago. I wish to offer a different explanation and way of looking at the elusive subluxation from a globally functional viewpoint. To some, I will be viewed as a heretic because I do not partake of Palmer philosophy hook, line and sinker. To the more open minded, perhaps you will go into your practice the day after reading this and try to see if what I say exists and is true. I hope this is what most of you will do.

The spine doesn't exist by itself; it has other forces that act upon it to create problems in the way the spine functions, resulting in many of the chronic subluxations we treat. Ignoring those outside forces results in patient outcomes that are lower than what can be achievable, resulting in increased chiropractic visits. For instance, many chiropractors completely ignore the feet as a cause of lower back and leg pain. It has been established by Rothbart,[1] Foot Levelers and others that back and leg pain and proper spinal function are inseparable. Why else would Foot Levelers teach doctors this and make a career based on this point of view? As a result, many patients have been helped by the use of orthotic devices distributed through chiropractors.

Last week, a new patient came in with a history of multiple traumas to his neck and back. He had visited two chiropractors prior to me. One had noticed he had overpronated feet and did nothing, yet he had severe lower back pain. Taping his feet into the neutral position with co-flex tape increased his flexibility markedly and significantly reduced his lower back pain. This was done prior to treating him. The feet can have a damaging affect on the lower back, knee and leg. Foot overpronation problems are commonly genetic, usually appearing prior to the age of five as a child's feet rotate out during growth.

When I perform a seminar on this subject, I teach how to evaluate kinetic chain dysfunction and to always look at the feet and how the patient walks during any exam for lower back pain and leg pain. Since the majority of all back and leg pain sufferers have foot overpronation, you can more accurately evaluate this patient by assuming one or both feet are overpronated and try to rule it out using simple tests I outlined in some of my earlier articles on the basic pronation accommodation pattern.[2] These include the SLR, Patrick/Fabre, Kemp and Quadriceps Resistance Test.

These tests will all show hypertonicity and guarding on the affected side(s). Since a proper functioning leg has predictable function and strength, a dysfunctional leg has predictable

dysfunction and weakness with muscle tightness as well. A doctor can make assumptions about leg dysfunction due to its predictable nature. Therefore, this knowledge enables you to stop the exam and show the patient what you will find prior to finding it. Patients are amazed by this, although it shows you are a good diagnostician. You will often tell the patient things they haven't even told you about, since many symptoms come and go.

How many of you can go to 10 chiropractors and get the same answer for a problem you are having? Sure, they might all say subluxation, which is similar to 10 medical doctors calling the problem arthritis, although the diagnosis is inaccurate, since it is a meaningless description and really doesn't explain what the problem really is. Evaluating the global effect of a dysfunctional kinetic chain on the hip and back is a far more accurate way of diagnostically working up a patient's back and leg pain, and most examiners will have the same findings on evaluating the same patients. Dr. Cyriax, the orthopedist from England who is a proponent of medical manipulation and friction therapy, did the same thing with muscle testing. He personally trained all his therapists; they all test the same way and had a high interexaminer reliability as a result of it.[3]

When a patient says they have leg or back pain, do you immediately think of disc problems and subluxation? Do you watch the patient walk into the exam room and look at their foot posture, or do you just assume that a number of adjustments will resolve the condition? What is your definition of resolving a condition? Is a resolved condition no pain and improved function, with the patient able to do what they did before? What are your objective parameters? Do you use orthopedic tests, ranges of motion, and stability of the overall problem? Do you manually palpate the muscles to see if they are functioning better and allowing more freedom of motion? Do your maintenance patients come back weekly or monthly for adjustments of the same dysfunctions which reoccur with great predictability? Is it possible you may have missed something, causing the same spinal dysfunctions to constantly reappear? If the patient is on their 40th adjustment to resolve neck and back pain, maybe there is another reason for their neck and back being out other than "the subluxation and stress." If your patients must get up every morning and either do Williams protocol exercises or roll their head around until their neck loosens up, maybe you missed something.

Neck pain can also be evaluated globally. During examination, do you do the examination by the numbers, with all the orthopedic tests, and ignore their shoulders and overall posture? Posture can have a devastating effect on the way the neck functions and can cause chronic cervical joint dysfunction/subluxation. What about the jaw? If the patient's upper neck is locked up repeatedly, the jaw is most definitely involved. How can someone adjust subluxations without evaluating the effect of these structures on the spine? Obviously you cannot, and you are ignoring causative factors which can help you resolve, often for good, a neck, jaw or shoulder problem. Patients with chronic neck problems have tight, ropelike muscles which are weather sensitive. We often try to adjust through this, and create discomfort for the patient during the process. Is it any wonder you need a great deal of speed and force to adjust them? Perhaps the reason we do not look at people globally is because we were never trained to think and evaluate this way. I know I was never trained to do it.

While evaluating the upper body, I will perform a talking examination on these patients and tell them what I find, showing them where they are restricted and pointing out musculature which is contracted and preventing movement. This makes them well informed. At your report of findings, your job is much easier, and the patient will more likely follow your instructions. Current studies do indicate that patient compliance now typically hovers at about 40 percent.

Upper body kinetic chain problems are also somewhat predictable. For instance, when you look at someone from the top down, and see one shoulder more forward than the other, the anteriorly

placed shoulder will be weak. I have theorized that this occurs because as a system of pulleys, the more anteriorly placed the shoulder is, the more dysfunctional the joint becomes, as the angle of pull of the shoulder muscles becomes more disadvantageous and makes the patients shoulder muscles work harder.

I often tell the patient, "This is what I will find. All the muscles in this right shoulder will be weak and your neck motion in the opposite direction will be restricted by the trapezius due to the tension it exerts on your neck from poor posture." I then muscle test them and show them what I said is true. I will then pull the shoulder back and retest. With the new angle the shoulder functions at, it is noticeably stronger. I also show them their neck moves more easily with their shoulders back vs. their current posture and make them see what posture does to their neck. Seeing is believing and our more sophisticated '90s public always wants more proof.

How can a doctor justify the ignorance of saying, "I just adjust subluxations"? The spine doesn't exist in a vacuum. While I am sure many "principled" chiropractors would beg to differ, as they download me with Palmerian philosophical stuff from the early 1900s, the fact is that ignoring the effects of the other structures on the human frame is unjustifiable. Simply put, would you go to a medical doctor practicing 1950s medicine? I wouldn't. Our profession continues to evolve and in the '90s, results are what counts -- period. The game now is how to get them better, cheaper, faster, with better quality of care.

A relatively new treatment which has been rapidly gaining converts is myofascial release. Taught by Leahy, Barnes, the Rolf Institute and others, this method has received some heavy promotion and deserves the good reputation it has received so far. It solves many of the treatment problems we have come to expect and gives us a way to resolve many conditions, often in half the time and with better long-term outcomes. The great thing about myofascial release technique is it fits into today's protocols and makes us look great with managed care companies by enhancing results, shortening treatment times, and increasing patient satisfaction. I would recommend all doctors begin to learn how to use this very effective treatment tool.

Myofascial release comes in different flavors: Leahy's "active release techniques," Barnes', Rolfing, Mock and others. My own methods, which have drawn from the others previously mentioned, have evolved realizing that not one approach works equally as well on all tissue density types, and it is certainly helpful to change to different techniques for the same area, depending on the patient's muscular topography. This is not dissimilar to changing adjustive methods for different patients, because some techniques work better in different situations.

Faced with the current health care scenario, our profession needs to continuously prove we are the best at what we do and we must continue to improve and evolve with time. Currently, many of our studies have been favorable and show our cost effectiveness in many cases. I also believe there is a place for maintenance care, although we must ask ourselves if we are maintaining a chronic condition or if we resolved it as best as possible, with the most effective techniques, so the patient depends on themselves and not on us (e.g., using a pillow instead of correcting a coccyx problem is in my opinion maintaining a chronic condition). Maintenance care in my office is usually administered quarterly, although some patients do need care on a more frequent basis for various reasons. It's also nice to see patients stay loose by the time their 3 month maintenance adjustment occurs, and you have just minor work to do on their spine to restore their mobility to a more normal state.

In closing, I believe we need to continually evolve both our diagnostic and treatment skills to keep up with the demands of today's health care marketplace. The public needs to have things explained to them in a way that makes sense. I also believe global examination is more thorough and

accurate and must include kinetic chain evaluation during your examination of a patient. This type of examination makes performing procedures such as myofascial release more accurate, since you will realize that body movements are a series of either functional or dysfunctional patterns which have many predictable consequences.

References

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