

## **The Song the Subluxation Sings**

*an introduction to the McKenzie Method for chiropractors*

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**I am here to introduce you to the principles and practice of what generically may be referred to as end range loading strategies based upon symptomatic and mechanical responses to loading, also known as the McKenzie Method, a “method” of clinical reasoning developed by Robin McKenzie of New Zealand.**

**One might ask what the benefit is for a chiropractor to study a Method devised by a physical therapist. The benefit is that mindfulness about how the spine behaves mechanically *and* symptomatically, in response to movement and positioning, is essential to making informed decisions related to movement and positioning strategies, in general, and the adjustment, in particular.**

**The adjustment is the tool that makes us most unique as chiropractors. Nonetheless, the adjustment is one of many potential therapeutic spinal movement and positioning strategies. Our understanding of the adjustment should benefit from studying its relation to other movement and positioning strategies.**

**Granted, something need not be wrong where an adjustment is applied for the adjustment “to be right.” However, if something *is* wrong where an adjustment is to be applied (to make things right), the more information we have about responses to movement and positioning, the better.**

**Curiously, the “chiropractic” criteria upon which adjustments are predicted can be so disparate from technique to technique, that the only discernable similarity between two chiropractors may be the DC after their name.**

**The number of chiropractic techniques has mushroomed over the past century to the point that there are incarnations of chiropractic that DD would not recognize as much as what transpires in the offices of non-chiropractic manipulators.**

**When searching for commonality between the various chiropractic techniques, it appears that what is in common is the *absence* of a critically important common thread, that being an appropriate, common sense, street smart appreciation of how symptomatic reactions to movement and positioning can inform determinations about subluxation listings.**

**We have neglected the possibility that symptoms are innate intelligent communications about the song the subluxation sings, a song that not only has rhyme but has reason.**

**Chiropractic is no longer the only profession interested in the end range loading of spinal structures for therapeutic purposes. Chiropractic has yet to employ end range loading for diagnostic and educational purposes as has been developed in other professions.**

**Research outside the chiropractic profession, concerning manipulation, continues to grow, including attempts to develop prediction rules to determine the behavior of spines that benefit from manipulation. Included in the prediction rules are accountings for symptoms, something that has historically not been considered by chiropractic technique.**

**Traditionally, we have ignored how spinal symptoms (and mechanics for that matter) behave in response to movement and positioning as criteria upon which to predicate movement and positioning treatment.**

**Making sense of spinal symptoms is *not* folly and can be critical for interventions that apply directional forces to the spine. The McKenzie Method offers the symptom and mechanical profile of subluxation listings, making more robust decisions possible when loading joints at end range, only one example of which is the adjustment.**

**End range loading plays a central role in chiropractic technique, so it is the oddest thing that chiropractic techniques are not mindful of symptomatic and mechanical responses to end range loading as a means of deciding which end range to load to. Standard motion measurements and provocative tests do not reveal this; the answer is found within the patient's experience of end range loading, revealed by taking a careful history and the performance of repetitive and/or sustained end-range loading clinical exam.**

**Although chiropractors load joints at end range, they generally do not explore the effects of repetitive motion to, or sustained loading at, the end range they intend to load (sometimes with considerable force). Instead of studying how the spine *itself* behaves, in order to decide how to load it, decisions are often made according to non-spinal phenomena without *prima facie* evidence of a spinal connection, much less anything having to do with the experience of the sufferer.**

**We are fixated on *in vitro* “indicator” leg lengths or muscle strengths, mathematic modeling of radiologic shadows or what the palpating practitioner feels vs. what the patient feels and how *the spine, itself*, responds symptomatically and mechanically to movement and positioning, *in vivo*.**

**Appreciating responses to movement and positioning at end range makes sense if the intended therapy employs end range loading strategies. This sounds very simple. As a profession, we are simply not doing it. Understanding how *the spine, itself*, behaves should come first. Mastering the mundane should come before we entertain the miraculous.**

**A Philosophy of Chiropractic must fit within, and be subjected to critical analysis from the larger philosophical systems that it inextricably finds itself embedded in. A modern, critical, Philosophy of Health is patient- and relationship-centered and resists reducing human experience to mechanisms and fundamentalist beliefs that blind practitioners and patients to relevant phenomena.**

**All treatment systems should be subjected to a critical analysis of their strengths and weaknesses, otherwise they fail to evolve further. Systems that do not permit change through critical analysis and purport to be the end of science are better contextualized in the realm of poetry or religion. All techniques run the risk of being cults or fundamentalist religions. I am not McKenzie Taliban. I am here as a chiropractor wanting to share with you how The McKenzie Method provides the symptomatic and mechanical profile of the subluxation, to help inform what it is that we do so that we may do it better.**

**A Philosophy of Chiropractic realizes the adjustment is just one of many possible movements and positioning strategies and that information about movement and positioning, obtained from patient history and clinical exam, is critical to informing loading strategies. A critical Philosophy of Chiropractic realizes that sometimes the adjustment needed is just a true pat on the back.**

**The McKenzie Method asks practitioners to relax their senses of sight and touch so they may hear the sound of innate whispering the individual's subluxation's story into our ears, a story not told if we are not there to hear it.**

**The behavior of the spine, in response to movement and positioning, should be the first order of business vs. divining spinal status by how it ripples into phenomena that the uninitiated would never consider being related to the spine at all.**

**If one looks across the broad spectrum of conservative spinal care, end range loading is usually provided for three different reasons.**

**First, orthopedic tests employ end range loading to find out what is wrong and it is understandable why some cannot imagine end range loading as something that could be right.**

**Second, end range loading is employed to stretch shortened structures, often thought to be muscular, an assumption that is often wrong. Many assume that the muscle most local to the symptom is culpable and must be stretched. Muscles are often assumed to be short**

**without checking whether the motion loss or symptom pattern predicted by the shortness claimed indeed exists. Often it does not.**

**The third purpose for end range loading is to remedy functional, intra- and inter-articular disrelationships. Questions to be answered, regarding the relevance of end range loading for that purpose include why end range loading is relevant at all and what the appropriate degree of force and direction is for that relevant purpose.**

**The McKenzie Method provides reasonable answers to these questions.**

**The McKenzie Method clinical reasoning employs a phenomenological analysis of responses to loading, giving equal credence to the symptomatic and mechanical experiences of the patient and valuing those experiences over practitioner experiences such as palpation.**

**The McKenzie Method describes 3 phenomenological patterns of responses to loading that are amenable to movement and positioning therapies. The patterns are then explained by pathoanatomical theories from which the patterns draw their names, those being the Postural, Dysfunction and Derangement Syndromes.**

**The Postural Syndrome is not benefited by end range loading. Complaints are only provoked by prolonged, sustained loading at end range and, as such, are intermittent. The only treatment is to avoid the provocative end range loading by correcting posture. There is no end range loading solution. This is the “if it hurts don’t do it syndrome.” The trick is**

**to learn the skills to motivate patients to adopt new sitting postures, a biopsychosocial skill on the part of the practitioner.**

**Treatment for the Postural Syndrome avoids end range loading, pursues it for the Dysfunction syndrome and employs both tactics for the Derangement syndrome.**

**The Postural Syndrome is akin to concepts related to stability training and addresses patients that do not benefit from end range loading at all.**

**Some patients benefit from stiffening the spine as opposed to loosening it, i.e. some benefit from avoiding end range as opposed to pursuing it.**

**A means of evaluating the relevance of end range loading should include the ability to identify cases where end range *loathing*, as opposed to end range loading, is the order of the day. The notion must be entertained that a subluxation may be the result of too much movement without any end range loading tactic required to correct it.**

**McKenzie Method mindfulness identifies who responders and non-responders to end range loading are.**

**The Dysfunction Syndrome concerns short tissue. Symptoms are provoked at an end range that has become limited, i.e. end range realized prior to normal end range. Repetitive loading at the compromised end range does not result in mechanics or symptoms**

**improving or declining. It is treated with frequent stretching/remodeling of tissue. This is the “no pain no gain syndrome.”**

**Understanding how short tissue behaves is important to help one appreciate when it is present. Therapy to remodel short tissue appears to work better when short tissue is present. The greatest utility of being mindful about how short tissue behaves is the ability to appreciate when it is not there. Today, thousands of practitioners are assuming short muscular structures are culpable for complaints without verifying that the motion loss predicted by the shortness claimed is actually there.**

**More often than not, mechanical and symptomatic patterns to loading are better explained by intra- or inter- articular mechanisms versus those ascribed to extra-articular short structures, the skill to identify which we work-shop as well.**

**The Postural Syndrome would not mandate an end-range loading adjustment for resolution and frequent self-generated end range movements are essential for resolution of Dysfunction, short tissue patterns.**

**The syndrome closest to our subluxation is the Derangement Syndrome, similar to Gonstead disk theory with the symptom profile of the subluxation replacing the shadowy x-ray profile. The Derangement pattern is more complex than the other syndromes. Loading in one direction affects mechanical and symptomatic responses in one or more other directions. This syndrome can be the most disabling but also can respond more rapidly to appropriate end range loading strategies than other syndromes.**



**By studying how symptomatic and mechanical responses to loading behave in tandem, the subluxation listings and, therefore, the direction of detriment and the direction of correction (the directional preference) may be determined.**

**McKenzie observed an important general derangement pattern, as follows. Loading in the direction of detriment has symptoms during the arc of movement and causes an obstructed end range (rigidity) in another, often opposite, direction that has no pain during the arc of movement, only at the obstructed end range. Loading at the obstructed end range reduces the obstruction (rigidity) and results in reduced provocation from loading in the direction of detriment.**

**The *full* McKenzie derangement pattern is one wherein the direction of detriment is associated with instability and results in rigidity in another direction; loading at end range in the direction of rigidity (i.e. the direction of correction) not only increases movement in that direction but also results in decreased instability in the direction of detriment.**

**The direction of detriment is associated with pain during motion and peripheralization of symptoms, the direction of correction is associated with the centralization of symptoms.**

**The centralization response to end range loading, first described by McKenzie is now firmly entrenched in the literature as an optimistic prognosticator of intradiscal complaints. Centralization occurs when symptoms radiating peripheral from the spine resolve towards the “center” as a result of patient-generated end range loading, sometimes associated with a transient, significant increase of central discomforts.**

**Centralization, as a predictor of discogenic pain, has been shown to have high specificity and low sensitivity. Centralization predicts positive outcomes for return to work, work hardening programs, manipulation and stabilization and those who centralize are 6 times less likely to go to surgery.**

**The 3 Syndromes of the McKenzie Method recognizes patterns of spinal conditions amenable to mechanical therapies, some of which require end range loading, some of which require end range loathing and some of which require both. All require that we listen to those whose health we are responsible for.**

**From palpation to x-ray markings to postural grids to neurocalometers to split scales to indicator muscles and limbs, we have explored and perhaps exhausted what is to be learned through our senses of touch and sight. Now is the time to listen for us to listen to the answers found in what patients experience. No one is closer to the phenomena of concern than the patient.**

**The patient *is* the phenomena of concern and we would be well advised to study how patients perceive their symptoms and mechanics in response to movement and positioning in order to develop movement and positioning strategies based upon movement and positioning criteria.**

**Intrinsic to the McKenzie method are certain logical progressions. Lesser forces are explored before greater forces. Less is more. If you do too little you can always do more, if you do too much you can not do less. Patient-generated end range loading strategies are**

explored before therapist generated ones, so patients can dial innate direct without operator assistance and realize what it is they can do for themselves before becoming dependent on what is done to, or for, them.

Progressive forces, beginning with patient-generated end range loading increasing to mobilization and then to manipulation are explored in a step wise manner. Greater forces are not required if lesser forces get the job done or if lesser forces worsen the situation. If patient generated forces in a particular direction offer maintained, but not complete relief, the direction for manipulation is identified. I do not know of a more specific technique than that.

End range loading serves diagnostic and educational purposes. A beneficial adjustment serves as a diagnostic and educational tool informing the patient that their spine is strong, responds to end range movements in a certain direction and that self-generated movements can do the same and should not be feared. This may also result in entertaining the notion that self-generated end range movements may equal or exceed the benefits of an adjustment in some cases.

The McKenzie Method is recommended by various guidelines worldwide, most notably the Official Disability Guidelines, a key utilization review reference for industrial injuries, has recently been made law in Texas. The ODG review of the literature concluded that the McKenzie Method has demonstrated significant inter-trained-examiner reliability and that centralization & directional preference for loading has been shown to be a significant subgrouping mechanism for appropriate exercise programming.

**McKenzie predicts that a majority of individuals with spinal complaints would benefit from minimizing flexion and periodically pursuing extension, considering the amount of time we spend flexed in everyday life, although the opposite less frequent pattern is also recognized.**

**Snook demonstrated that controlling early morning lumbar flexion reduced pain and costs associated with *chronic*, nonspecific low back pain.**

**Larsen et al demonstrated it is possible to reduce back pain prevalence, at low cost, among Danish military recruits after education concerning McKenzie extension principles, including lordotic sitting postures and drill-sergeant ordered prone extensions.**

**Long et al showed that the McKenzie assessments identified a large subgroup of *acute*, *subacute* and *chronic* low back patients that had a directional preference i.e. that “the response to contrasting exercise prescriptions was significantly different.” Exercises matching the direction of preference significantly and rapidly decreased pain and medication use and improved disability, degree of recovery, depression and work interference outcomes. The majority of subjects required an extension component to their loading strategy.**

**The challenge to chiropractic consciousness is to be mindful about all phenomena related to movement and positioning of the spine. Subluxations can be appraised by both the symptoms and mechanics they manifest. Symptoms related to movement and positioning of the spine represent the voice of innate, a voice that makes no sound unless we hear it.**

**In closing, I wish to remind you that some of the best things in life are at end range especially when we are willing to listen to the message that resides there.**