

# REHABILITATION OF PAIN ASSOCIATED WITH THE LOW BACK

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Decades of published research on low back pain almost always includes a short leg as part of the functional/structural cause of distortions in the spine and pelvis leading to low back pain. There is much debate over this and no one has provided a universally acceptable answer for this structural imbalance. Various studies evaluate the ilium/sacrum relationship from either a standing position (front, back or side) or lying supine or prone. Consequently, what was already a confusing issue becomes even more confusing as there is no one standard for this evaluation.

P.J.R. Nichols, DM, specialist in physical medicine, Royal Air Force, states "the recorded incidence of leg length will depend on the method of assessment and the selection of the subjects. The smaller the unit of measurements the greater will be the incidents, and the larger the unit of measurement the greater will be the agreement between the observers."<sup>1</sup> This raises some very significant questions as to assessment and interpretation as seen in the results of the work of Denslow and Chase in their measurement of leg length discrepancy which found a 66% incidence of short right leg,<sup>2</sup> and in the work of John H. Juhl, DO who found a 68% incidence of the right leg being short.<sup>3</sup> The difference in the way they are assessed and interpreted makes even these figures questionable. The one constant with the majority of people with low back pain symptoms seems to be that a short leg syndrome is present.

From my 38 years of evaluation and practice I have noticed that there is an observable anterior / posterior rotation of the iliums which tends to create a functional short leg on the side of the posterior rotation. With this ilium rotation the sacrum is tipped creating increased curvatures throughout the spine. We call this the core distortion since the structural core of the body from the pelvis through the spine is distorted in direct correlation to the degree of the rotation of the iliums and tippage of the sacrum.

In this core distortion the left ilium is rotated anteriorly, and the right ilium is rotated posteriorly. This is easily observed when viewed from behind. Also, when viewed from the left side the ASIS of left ilium is rotated counterclockwise downward and forward, and from the right side the PSIS of the right ilium is rotated counterclockwise downward and back. If using functional kinesiology, the client is supine and asked to raise the right leg 10" off the table. When the right leg is pressed down toward the table there is significant strength. The same test done with the left leg will show significant weakness, even in a weight lifter who can squat 400 lbs. "The rectus femoris is a powerful extensor of the knee but is weak when the hip is flexed"<sup>4</sup> along with the other hip flexors. The anterior rotation of the left ilium (flexion) prevents the rectus femoris and the other hip flexors from being functionally strong. This is a consistent finding in clients

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<sup>1</sup> SHORT-LEG SYNDROME, P. J. R. Nichols, DM, *(based on material for a thesis accepted by Oxford University for the degree of D.M.)*

<sup>2</sup> Denslow J, Chase I, et al. Mechanical stresses in the human lumbar spine and pelvis. In: Postural Balance and Imbalance. Peterson B, ed. Indianapolis: American Academy of Osteopathy, 1983, pp. 76-82

<sup>3</sup> Juhl J. Prevalence of frontal plane pelvic postural asymmetry. J A Acad Osteopath Assoc, October 2004; 104(10);411-21.

<sup>4</sup> MANUAL OF STRUCTURAL KINESIOLOGY, Clem W. Thompson, PhD, FACSM, The C.V. Mosby Company, St. Louis 1973, pg.59

with the core distortion and is just one of many functional tests that verify the structural imbalance in the pelvis that is a major part of the core distortion found in the body.

The rotation of the iliums creates a long leg/short leg, a tippage of the sacrum, and a stretching of the connective tissue between the sacrum and ilium. When moving the iliums back into support using classic manipulation or deep soft tissue therapy there is some improvement, but this improvement will not be maintained when under a weight bearing load because of the stretched ligaments and fascia associated with the sacrum, ilium and the position of the legs. Even after a significant number of treatments when a client is weight bearing the iliums will again rotate and the weight bearing separation will reappear along with the tippage of the sacrum. This is extremely important because if the sacrum cannot be level enough to support the spine, the exaggerated curvatures of the spine which put pressure on the discs and cause spasms or contraction of soft tissue cannot be brought into long term balance and support for long term pain relief.

**Enter Cranial/Structural!** The relationship of the movement of the cranial bones to the rotation of the iliums provides a tool for bringing the structure at the pelvis into weight bearing support. The wings of the sphenoid have a direct relationship to the ASIS of the iliums, and the ridge of the occiput relates to the PSIS. When the cranium is moving in its cranial motion of flexion / extension 8-12 cycles per minute<sup>5</sup> the cranial motion moves off a fulcrum of the SBS where the sphenoid and occiput meet. The wings of the sphenoid and the ridge of the occiput display a distortion in this motion. The left wing of the sphenoid moves easily downward into flexion but is restricted in going into extension. The right ridge of the occiput moves easily downward into flexion but is restricted in moving upward into extension. This creates a distortion that is identical to what is happening with the iliums.

The application of the Cranial/Structural Core Distortion Releases (CSCDR) address this imbalance in the cranial motion using specialized soft tissue releases to bring the cranial motion into balance by releasing the soft tissue restrictions that govern the distorted cranial motion. There is an immediate observable improvement in the pelvis where the anterior rotation of the left ilium is lessened and the posterior rotation of the right ilium is lessened. The result is a leveling of the sacrum and an immediate weight bearing support for the spine. After the CSCDR I reapply the functional left leg test discussed previously and the left leg will now test strong showing no inherent weakness. This is just one of many tests that show improvement in strength and indicate a balancing of the iliums. The obvious improved balance of the iliums results in a lessening of the leg length difference. The myofascial planes that have been holding the compensation for this core distortion which includes the long leg/short leg start unwinding to the degree that the fascia and other connective tissue can release.

**I have been working since 1985 with the CSCDR to bring the pelvis back into weight bearing support and balance, and have found these results to not only be consistent with every client, but remarkable in achieving long term recovery.** Clients with back pain now have a weight bearing functional structure that supports the pelvis and spine more evenly lessening the curvatures. This results in an immediate reduction in the cause of degenerative disc disease and nearly every spinal condition starts to show improvement.

Using this new paradigm, treatment for low back pain begins with a structural evaluation with the client standing, followed by applied and functional kinesiological evaluation with client

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<sup>5</sup> RESEARCH IN SUPPORT OF THE CRANIAL CONCEPT, Hollis King, DO, PhD, FAAO, Associate Executive Director, Osteopathic Research Center, Fort Worth, Texas, 76107

supine. Over the years every client with back pain has tested positive for the core distortion in this initial evaluation. The core distortion is then released with the application of the CSCDR which can take 15-45 minutes. After the CSCDR kinesiology tests show significant strengthening throughout the body as the pelvis moves into balance. When clients stand after the CSCDR they generally report feeling their legs more directly underneath them with more support from the feet all the way up their structure. Measurements taken before and after using a level measuring tool indicates an average of ¼” – ½” gain in height. Many clients also report a significant reduction in the amount of pain and discomfort.

Once the CSCDR is applied the body structure begins moving back into balance with support for the sacrum and spine. The myofascial holding patterns start to unwind to the degree they can, but the extent of this unwinding is limited by the complications from injuries and degeneration of discs and joints from imbalances and weaknesses of the core distortion. At this point specific soft tissue myofascial work is applied to assist the unwinding of the chronically tightened old holding patterns to move the body into maximum balance. This totally changes the way the soft tissue responds to the myofascial work. Instead of resisting and trying to maintain an old pattern it is now actively unwinding into balance and support from the very first session without resisting the myofascial work. Everyone with back pain has a different degree of distortion, degeneration, damage, spasm, and pain. Consequently the number of sessions varies, but each individual is treated until the pain disappears and function is restored. Thus, applying the CSCDR before soft tissue therapy initiates the unwinding of the core distortion to provide weight bearing support at the pelvis making the full treatment 10 times more effective.

Clients treated with the CSCDR 25 years ago are still maintaining their structural improvements pain free. The weight bearing support that was previously unattainable successfully rehabilitates severe disc herniation, bulging discs, stenosis, spondylolisthesis, spina bifida, scoliosis, sciatica, and simple lumbosacral sprain/strain long term. The missing link was not treating the cranial core distortion to bring the sacrum / ilium relationship into weight bearing support. Structural Energetic Therapy® utilizes the Cranial/Structural Core Distortion Release integrated with specialized myofascial techniques as a basis for bringing long term support to the pelvis. This has opened an exciting new frontier in the effectiveness of treating low back pain with long term results.