

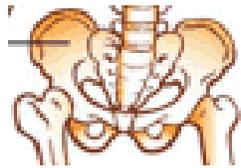
THE KEY TO REHABILITATING BACK PAIN

By Don McCann, MA, LMT, LMHC, CSETT

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It is universally acknowledged that there is a spiral twist in the body that goes from head to foot, and therefore it is considered normal. I call it the **core distortion**, and have discovered that when it is reduced painful symptoms begin to disappear. If massage therapists are able to understand how this core distortion causes pain and dysfunction their treatments will be more effective. The entire spine is involved in the spiral twist (core distortion) and is the focus of this article.

The support at the base of the spine is the first and most important aspect to examine. The core distortion causes an anteriorly rotated left ilium and a posteriorly rotated right ilium. This distortion is observable in the cranial motion – the left wing of the sphenoid is restricted down which relates to the ASIS, the right posterior ridge of the occiput is restricted down which relates to the PSIS. With the anterior/posterior rotation of the iliums the sacrum tips and rotates as follows: the left superior articular facet rotates anteriorly, medially and



slips down, the right superior articular facet of the sacrum rotates posteriorly and slightly up, and the apex of the sacrum and the coccyx tilts to the right. The greater the anterior rotation of the left ilium, the greater the tippage of the sacrum, which creates less weight bearing support for the sacrum and causes overstretching of the supporting ligaments between the sacrum and

ilium. The base of the sacrum, the support for the spine, is tipped and rotated down and to the left. This results in an uneven weight bearing base for the spinal vertebrae producing exaggerated curvatures in the spine.

As the degree of rotation of the iliums and tippage of the sacrum increases, the degree of the spinal curvatures also increases. These larger spinal curvatures become areas where problems develop such as subluxations of the vertebrae or uneven pressure on the discs putting the spine in a deteriorating condition commonly described as degenerative disc disease. The exaggerated curvatures caused by the core distortion put uneven pressure and stress on the discs and vertebrae. In the body's struggle to maintain structural support it creates lipping, spurring and arthritis on the vertebral edges where the excess pressure and irritation is taking place. The over compressed discs begin a long term thinning process creating a weakening of the disc sac resulting in bulging, herniations, or even ruptures. It is extremely rare to find herniated and ruptured discs where there is not a significant imbalance and curvature in the spine. Also, there is a greater chance of stenosis due to the curvatures and pressure on the vertebrae.

Soft tissue also plays a significant role. Restrictions in the soft tissue of the cranium create restrictions in the cranial motion. As in any joint of the body, the range of motion is defined by the degree of soft tissue restriction, and an imbalance of tension in the soft tissue creates an imbalanced range of motion at any joint including the cranial sutures affecting the cranial motion. So, observing the core distortion with its imbalances of the anterior/posterior rotation of the iliums and tippage of the sacrum provides information for possible solutions for rehabilitating spinal conditions. According to Dr. Terry Yokum¹ the normal rotation of the

¹ ESSENTIALS OF SKELETAL RADIOLOGY, Vol. 1, 2nd ed., Terry R. Yochum, BS, DC, DACBR, FCCR, (C), FICC, and Lindsay J. Rowe, M. App. Sc. (Chiropractic), M.D., DACBR, FCCR, (C), FACCR. (AUS), FICC, Williams & Wilkins 1996, pg 175, Table 2.26, pg 176, Table 2.27, 2.28

iliums is greater than 22°. Consistent with kinesiological information a rotation of more than 15° in any joint will dramatically weaken associated muscle strength and function. Thus, in the core distortion the spinal muscles and major support muscles for the pelvis are significantly weakened, proven by kinesiological testing. This explains how over time the core distortion worsens with increasing degrees of rotation and spinal curvatures due to the inability of the muscles and connective tissue to support the spine, and why severe soft tissue injuries can occur in the supporting spinal muscles.

The good news – the core distortion offers a direction for rehabilitation. By significantly lessening the degree of the core distortion which includes bringing the rotation of the iliums to less than 15° and lessening the entire spinal curvatures, the cause of most spinal pain and dysfunction can be rehabilitated.

CASE STUDY

Casey, a 43 year old business owner and downhill skier, came for treatment for neck and back pain and brought MRI's and x-rays. The MRI showed disc herniation between C3-C4 and bulging discs between L4-L5 and C6-C7, thinning of discs throughout her lumbar region, and lipping and spurring in the lumbar, thoracic and cervical vertebrae. She saw a chiropractor, physical therapist, and orthopedic surgeon, and the diagnosis was degenerative disc disease. Neither the chiropractic treatment which included massage nor the physical therapist relieved her pain. The neurosurgeon basically said her downhill skiing was over and she needed surgery.

Postural evaluation revealed a rotation of the iliums, thoracic curvatures, and the head and neck tipped forward and to the right (classic core distortion). Applied and functional kinesiology verified the structural imbalances and significant weakness in the associated muscles and soft tissue.

The Cranial/Structural Core Distortion Releases (CSCDR) were applied in the initial treatment to release the soft tissue restrictions in the cranium that held the cranial imbalance, a significant player in the core distortion. This also reduced the rotation of the iliums and brought the sacrum into weight bearing support and more level. Decreasing the tippage of the sacrum resulted in greater support for the spine leading to a significant decrease in the curvatures of the entire spine. Kinesiological testing showed an increase in strength in all the muscles associated with the pelvis and spine. This provided support for her body to maintain the changes.

Then soft tissue protocols were applied to release the tension, imbalances, adhesions and scar tissue that were maintaining the old structural limitations of the core distortion. Each weekly session focused on specific areas of the structure based on pain or degree of structural imbalance. After 10 sessions the neurosurgeon took another set of MRI's which showed a dramatic decrease in the curvatures of her spine, and the lumbar bulging disc had completely diminished. Her low back pain was gone and she had full range of motion. Her neck was only painful when she turned her head to the right putting pressure on the herniated disc. The x-ray showed that the herniated disc was reduced and no longer pressing into her spinal column and the bulging disc was much smaller. After five more treatments in three months Casey was pain free and decided to return to the slopes to resume downhill skiing.

Casey's chiropractor and physical therapist were not successful because they didn't address the major components of the core distortion. Once the CSCDR was applied there was a level foundation for her spine which reduced the degrees of spinal curvatures, relieved the disc

compressions, and strengthened the supporting muscles that could not be fully functional. This strength and structural support allowed her body to maintain the changes. The soft tissue therapy reorganized the myofascial holding patterns which allowed additional unwinding of the spinal curvatures resulting in structural improvement.

To learn more about the specific techniques necessary to balance the core distortion please read other articles about the core distortion that have been published in *Massage Today* or go to the Structural Energetic Therapy® website.