

# Our Energetic Relationship with Gravity

*Success of the NUCCA intervention measured by postural balance*

Dr. Jeff Scholten graduated magna cum laude in 2001 from Palmer College of Chiropractic. A member of the board of directors of both the National Upper Cervical Chiropractic Association (NUCCA) and NUCCRA, he maintains a private practice in Calgary, Alberta. Dr. Scholten can be reached by e-mail at [info@drscholten.com](mailto:info@drscholten.com).



Jeff Scholten, DC

Dr. Jason Plotsky graduated summa cum laude in 2002 from Palmer College of Chiropractic. Currently, he is serving as the president of the Council of the Nova Scotia College of Chiropractors. He is also a NUCCA committee chairperson. Dr. Plotsky is in private practice with his wife, Dr. Cindy Toner, in Halifax, Nova Scotia. He can be contacted at [jason@novaspinalcare.ca](mailto:jason@novaspinalcare.ca).



Jason Plotsky, DC



*Radiographic positioning.*

*Adjustment positioning.*



The range of procedures offered by chiropractors in Canada allows for significant practice diversity. Tolerance, understanding and the proper utilization of diversity can be viewed as a hallmark of strength in a profession. To properly utilize the benefits available from this diversity, there must be some comprehension of what other practitioners are intending to accomplish with their patients.

Upper-cervical-specific chiropractic has a rich history within our profession. There is a wide spectrum of potential symptomatic and physiological effects experienced by patients following an upper cervical intervention. This article intends to shed some light on why a chiropractor might choose to focus exclusively on adjusting the cervical spine.<sup>(1)</sup>

Though there are numerous upper cervical chiropractic procedures, they can be classified into two general groups: orthogonally-based procedures, (OBP) and non-orthogonally-based procedures (NOP). Orthogonal refers to an ideal spinal relationship of C1 being perpendicular to the mid-sagittal line of the skull and cervical spine in the frontal plane, as well as perpendicular to the skull in the horizontal or transverse plane. Dr. John F. Grostic, a chiropractor practising in Michigan, was the first to popularize an orthogonal-based analysis and make a vectored correction with the use of his hand. At least three organizations have been derived from the original Grostic work: NUCCA, Atlas Orthogonal, and Orthospinology. Orthospinology is a technique system that uses both hand-held and table-mounted instruments in addition to the original hand adjustment. Atlas Orthogonal, which was developed by Dr. Roy Sweat of Georgia, uses a percussive hand-held or table-mounted instrument for adjusting. NUCCA, developed by Dr. Ralph Gregory of Michigan, employs an upper cervical analysis and hand adjustment that continues to be developed by the National Upper Cervical Chiropractic Research Association (NUCCRA). As NUCCA practitioners, we

will limit this discussion to OBP.

## MOBILITY/STABILITY

Many chiropractors attempt to influence a patient's physiology by creating greater localized joint function and mobility. While localized joint function is important, OBP practitioners concentrate on encouraging a circumstance within the upper cervical spine in which C1 is horizontal and neutrally balanced in space between an equally balanced skull and neck.(2) Mobility and stability have an inverse relationship, and although decreased stability inherently creates an increased susceptibility to trauma, this lack of stability in spinal joints, and the body in general, is a critical component of agility.(3) The occipito-atlanto-axial complex, with its tremendous range of motion, allows for many functional benefits, but stability can be sacrificed in order to attain them.

***An efficiently balanced body  
will permit more energy to  
be directed for the body's  
self-maintenance and healing.***

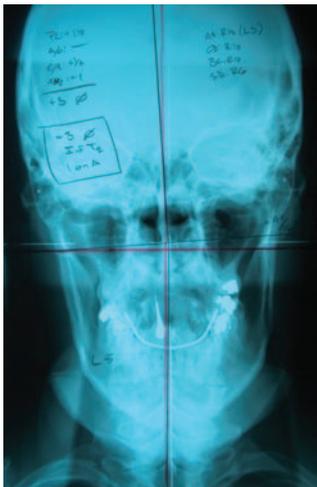
Clinical observation of patients standing in a neutral position has led NUCCA practitioners to discern that movement away from the vertical axis results in abrupt increases in torque forces. These forces can span the whole musculoskeletal component and also affect visceral elements. Chronic postural distortion results in progressive degenerative effects that may cause functional and eventually organic disease. NUCCA practitioners aim to restore the patient to the vertical axis (when in a standing position) in order to minimize stress and energy requirements, and thereby induce a more optimal metabolic function.(4)

## POSTURAL BALANCE

Postural balance is the major physiological outcome measure used to determine the success of the NUCCA intervention.(5) Proper posture – a neutral standing position with the pelvis level and untwisted, the spine and head on the vertical axis, and bilaterally symmetrical weight distribution – is a critical component in our energetic relationship with gravity, as the body's ongoing effort to maintain verticality in a gravitational environment requires significant energy expenditure.

An efficiently balanced body will permit more energy to be directed for the body's self-maintenance and healing. In this light, an individual who is balanced relative to gravity will function more efficiently both biomechanically and physiologically. The hypothesis is that, as it self-heals, the body may be able to create a state in which it no longer experiences the presenting complaint.

Many reflexes allow us to maintain our bipedal posture. The reflexive contractions associated with head and neck



NUCCA nasium film.

position are usually positive and allow for balanced movement. However, if these reflexive contractions are maintained due to a misaligned occipito-atlantal-axial complex, they result in postural imbalances with all of the negative ramifications this imbalance produces in the body. For a NUCCA practitioner, the healthy symptomatic resolution is a positive, intentional side effect that occurs when postural balance is returned to the body by the proper removal of interference in the upper cervical spine.

Since Dr. Gregory's death in 1990, the procedure has continued to be developed by NUCCRA, the research division of NUCCA. The late Dr. Patrick Foran, of Vancouver, British Columbia, wanted the Canadian chiropractic community to know that NUCCA continues to thrive. This is evidenced by: the development of the Anatometer(6) standing postural measurement tool; the recent textbook, *Upper Cervical Subluxation Complex*, by Dr. Kirk Eriksen; the NUCCRA.org website; as well as a published abstract on a recent hypertension study by Dr. Marshall Dickholtz Sr.(7) These are examples of the continued push by dedicated OBP chiropractors to demonstrate the chiropractic hypotheses on which OBP procedures are based.

Technology and our ability to monitor, measure, and visualize the upper cervical misalignment and its sequelae (encapsulated in NUCCA's definition of the atlas subluxation complex syndrome[8]) continue to improve. We are moving gradually closer to a more complete understanding of what began with the upper cervical chiropractic pioneers so many decades ago.

A practitioner may choose to concentrate on segmental chiropractic, rehabilitation, sports injuries, pediatrics, radiology, or exclusively on the upper cervical spine. However, when a challenging case presents that is not resolving as expected, the expertise that already exists within the profession should be utilized.

For more information on NUCCA, or to find a practitioner near you, visit [www.nucca.org](http://www.nucca.org). ●

### References:

1. Scholten JN. *Review of clinical results in private practice 2004*, viewed October 21, 2006, [www.drscholten.com/Clinical%20Results.com](http://www.drscholten.com/Clinical%20Results.com).
2. Seemann DC. *Biomechanics of the upper cervical vertebrae. The Upper Cervical Monograph*, 1978; 2(4):1-2.
3. Gracovetsky S. *The spinal engine*. New York: Springer-Verlag, 1988.
4. Gregory RR. *NUCCA protocols and procedures: A textbook for the National Upper Cervical Chiropractic Association*. Monroe, Michigan: National Upper Cervical Chiropractic Research Association; 2002: 1-44.
5. *Ibid*: 1-45.
6. Gregory RR. *NUCCRA research: The Anatometer. The Upper Cervical Monograph*, 1975; 1(8):8-9.
7. Bakris GL, Dickholtz M, et al. *Achievement of blood pressure goal with atlas realignment. J Clin Hypertension*, 2006; 8(5):A71.
8. Gregory RR. *The A.S.C. and leg imbalance. NUCCA News*, 1969; 1(7):1-3.