

- I. Differential Compliance Scanning Procedures
  - A. Testing the cervical spine area to determine upper cervical involvement.
  - B. Comparison of relative resistances, one side to the other, in the upper cervical area.
    1. Up to 30 separate points can be compared during a single exam.
    2. The fixation component of the subluxation complex can be analyzed in all planes of motion; neutral, flexion, extension, rotation, and lateral flexion.
    3. Objective fixation listings may determine the most precise adjustment.
- II. Typical CFI Scan Findings
  - A. The compliance of the upper cervical spine compared with the rest of the cervical spine.
  - B. The standard deviation of A-P and lateral CFI scans.
  - C. Typical condyle, atlas, axis, C3 fixations.
  - D. Position changes and fixation findings.
  - E. Comparison with other subluxation analysis methods.

**NEUROLOGICAL COMPONENTS OF THE UPPER CERVICAL SUBLUXATION COMPLEX (UCSC): ANOTHER LOOK**

Karen M. Collins, BA, DC

Many theories have been hypothesized concerning the neurological effects of the UCSC complex.

1. Mechanoreceptor/Proprioceptive insult hypothesis
2. Direct insult to the brainstem
3. Neurologic over-innervation from imbalance in the brainstem affecting the reticular system
4. Dentate ligament cord distortion hypothesis

All these ideas are theoretically possible and explained through the relative anatomy and physiology. It is probable that all have a connection with the total picture.

The upper cervical area is unique and very complex. An integra-

tion of these theories seems to provide the best representation of the far reaching effects of the UCSC.

**RAND 36 USED AS AN OUTCOME MEASURE IN NUCCA PRACTICE**

Harry L. Wallace, DC  
Marshall Dickholtz, DC  
Charles Woodfield

For the past year, Dr. Marshall Dickholtz has been using NDI neck disability, VAS, and the Oswestry low back pain questionnaire as outcome measurements in his Chicago NUCCA practice. Most recently a series of approximately 100 patients has also used the Rand 36 health questionnaire both before and after a 10-week treatment period. This study is practice-based, and the focus of this presentation is to review the use of the Rand 36 and to establish its relevance toward the ongoing process of treatment and outcome evaluation in the typical NUCCA practice.

A standardized protocol of chiropractic care is followed with each patient entering the clinic. Not only are the descriptive categories of ID, age, sex, referral doctor, occupation, primary complaint, secondary complaint, and length of time of primary and secondary complaint considered, but unique to this study, each patient has a medical diagnosis for the primary complaint established by a physician. Diagnosis ranges over 26 different conditions. Routine pre- and post-Rand 36 scores and VAS of both primary and secondary complaints are the outcome instruments used for severity evaluations. Utilized are standard NUCCA procedures for pre- and post-checks on leg length, anameter, and C1 angle, as well as type of adjustment and weight balance measurements. Also considered are economic factors, such as total cost of visits and number of adjustments indicated.

This study reveals the significance of using the Rand 36 information system in conjunction with NUCCA methods for future practice-based research.

**THE OUTCOME OF UPPER CERVICAL CHIROPRACTIC PRACTICE: A PROPOSED PRACTICE-BASED RESEARCH PROJECT**

Edward F. Owens, Jr., MS, DC  
Bruce Pfleger, PhD  
Kathryn T. Hoirts, BS, DC

Upper cervical based practitioners often look at the correction of cervical subluxations as the ultimate goal of patient care. Patients, government agencies, and third-party payers on the other hand are more interested in the outcomes of the care in terms of relief of symptoms, improvement in general health and cost effectiveness. While it is certainly the goal of practitioners to satisfy these outcome-based criteria, there have been few studies to demonstrate how effective upper cervical care can be from this perspective.