

**Council on Chiropractic Practice**

**Clinical Practice Guideline**

**Number 1**

**Vertebral Subluxation  
in Chiropractic Practice**

**2003**

# **Clinical Practice Guideline: Vertebral Subluxation in Chiropractic Practice**

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## **Disclaimer**

The purpose of these guidelines is to provide the doctor of chiropractic with a “user friendly” compendium of recommendations based upon the best available evidence. It is designed to facilitate, not replace, clinical judgment.

As Sackett wrote, “External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision. Similarly, any external guideline must be integrated with individual clinical expertise in deciding whether and how it matches the patient’s clinical state, predicament, and preferences, and thereby whether it should be applied.”<sup>1</sup>

The most compelling reason for creating, disseminating, and utilizing clinical practice guidelines is to improve the quality of health care. The recommendations made in this guideline are specific to the clinical entity of vertebral subluxation and are applicable to the stated goals of the guideline. Consistent with Sackett’s statement, the recommendations are meant to be flexible based upon each patient encounter and the goals of both the practitioner and the patient being cared for.

These guidelines are for informational purposes. Utilization of these guidelines is voluntary. They are not intended to replace the clinical judgment of the chiropractor. It is acknowledged that alternative practices are possible and may be preferable under certain clinical conditions. The appropriateness of a given procedure must be determined by the judgment of the practitioner and the needs and preferences of the individual patient.

It is not the purpose or intent of these guidelines to provide legal advice, or to supplant any statutes, rules, and regulations of a government body having jurisdiction over the practice of chiropractic.

These guidelines address vertebral subluxation in chiropractic practice, and do not purport to include all procedures which are permitted by law in the practice of chiropractic. Lack of inclusion of a procedure in these guidelines does not necessarily mean that the procedure is inappropriate for use in the practice of chiropractic.

Participation in the guidelines development process does not necessarily imply agreement with the final product. This includes persons who participated in the technique conference, leadership conference, open forum, and peer review process. Listing of names acknowledges participation only, not necessarily approval or endorsement. The

guidelines reflect the consensus of the panel, which gave final approval to the recommendations.

1. Sackett DL. Editorial: Evidence-based medicine. *Spine* 1998; 23(10):1085.

## **Council on Chiropractic Practice Clinical Guideline Number 1. Vertebral Subluxation in Chiropractic Practice. 2003 Update and Revision.**

This document contains the changes, additions and revisions to the 1998 Council on Chiropractic Practice Clinical Guideline Number 1. Vertebral Subluxation in Chiropractic Practice and is organized in the following manner:

- Introduction to the development of Clinical Guideline Number 1 and the updating and revision process.
- Description of the development methodology for both the 1998 and 2003 documents.
- A description of the changes, additions and revisions to the Recommendations, Sub-recommendations and Commentary as a result of the 2003 review.
- If changes to a Recommendation have been made this is listed and discussed.
- If changes in Commentary following any recommendation have been made this is listed and discussed.
- If changes to a Conclusion have been made this is listed and discussed.
- If additional literature on the topic was found and reviewed then these references are listed at the end of the chapter.
- If a Recommendation, Commentary or Conclusion was added that was not included in the 1998 Guidelines, this is noted.
- If a Recommendation, Commentary or the literature remains as it did in the 1998 guidelines a simple statement that the Recommendation, Commentary or literature remains unchanged follows that section/topic.

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# Introduction

## The Council on Chiropractic Practice

In the summer of 1995, chiropractic history was made in Phoenix, Arizona with the formation of the Council on Chiropractic Practice (CCP). This initial meeting was attended by an interdisciplinary assembly of distinguished chiropractors, medical physicians, basic scientists, attorneys, and consumer representatives.<sup>1-2</sup>

The CCP was founded as an apolitical, non-profit organization. It is not affiliated with any other chiropractic association. The development of the CCP represents a grass-roots movement to produce practice guidelines which serve the needs of the consumer, and are consistent with “real world” chiropractic practice.

The mission of the CCP is “To develop evidence-based guidelines, conduct research and perform other functions that will enhance the practice of chiropractic for the benefit of the consumer.”

The Council on Chiropractic Practice developed and published its first set of clinical guidelines in 1998 titled Clinical Guideline Number 1 *Vertebral Subluxation in Chiropractic Practice*.<sup>3</sup> An abbreviated version of the document was also published in the *Journal of Vertebral Subluxation Research* in November 1998.<sup>4</sup>

The CCP Guides were intended to be used by practicing chiropractors, health care educators, chiropractic organizations, patients, insurance companies, attorneys, governmental officials and any other individual or group needing information about the practice of subluxation-centered chiropractic.

This guideline went on to become widely distributed and accepted within and outside the chiropractic profession. Following publication the Council on Chiropractic Practice mailed 50,000 copies of the document to licensed chiropractors in the United States and a similar effort occurred in Canada with the document being distributed throughout several provinces.<sup>5,6</sup>

Some state licensing boards and state associations either adopted the guidelines as an acceptable standard of care and/or officially endorsed the document including Washington and Indiana.<sup>7-9</sup>

On Mar. 17, 1999 Congressman Frank Pallone, Jr., of New Jersey who serves on the Health and Environment Subcommittee of the House Commerce Committee, addressed the Speaker of the House of the U.S. House of Representatives and publicly commended

the Council on Chiropractic Practice for its efforts in developing and distributing the guidelines.<sup>10</sup>

In May 1999 the CCP Guidelines were ratified by the Manitoba Chiropractors Association and in 2000 the CCP Guidelines were officially recognized by the College of Chiropractors of Alberta and the Chiropractic Awareness Council of Ontario also adopted the Guidelines.<sup>6,11,12</sup>

Other licensing boards and professional associations in other countries have adopted or endorsed the guidelines including the Israeli Doctors of Chiropractic (IDOC) and the Chiropractors Association of Ireland.<sup>13,14</sup>

In addition to the broad acceptance of the document, the guidelines themselves were also reviewed and subsequently incorporated into a separate guidelines document published by the International Chiropractors Association titled: *Recommended Clinical Protocols and Guidelines for the Practice of Chiropractic*.<sup>15</sup>

The Council on Chiropractic Practice has been working with the World Health Organization as that entity develops international guidelines for the practice of chiropractic. As part of that effort the CCP worked with the World Chiropractic Alliance and the World Health Organization to develop a document titled: *Guidelines on Training and Safety in Chiropractic*.<sup>16</sup>

### **Inclusion in the National Guideline Clearinghouse**

Following publication of the CCP Guidelines the document was submitted to the National Guideline Clearinghouse for consideration for inclusion. The NGC is sponsored by the U.S. Agency for Health Care Research & Quality and is in partnership with the American Medical Association and the American Association of Health Plans. Its mission is as follows:

The NGC mission is to provide physicians, nurses, and other health professionals, health care providers, health plans, integrated delivery systems, purchasers and others an accessible mechanism for obtaining objective, detailed information on clinical practice guidelines and to further their dissemination, implementation and use.<sup>17</sup>

The AHRQ contracts with ECRI, a nonprofit health services research agency, to perform the technical work for the NGC. ECRI is an international nonprofit health services research agency and a Collaborating Center of the World Health Organization.

In November of 1998, following review by ECRI, the CCP Guidelines were accepted for inclusion within the National Guideline Clearinghouse.

### ***Overview of the Development of the 1998 Guidelines***

In harmony with the general principles of guideline development at the time, the CCP originally created a multidisciplinary panel, supported by staff, and led by a project director. The guidelines were produced with input from methodologists familiar with guidelines development.

The first meeting of the Council on Chiropractic Practice took place on June 8, 1995 in Chandler, Arizona and the Council was subsequently incorporated as a non-profit organization. The first endeavor of the panel was to analyze available scientific evidence revolving around a model, which depicts the safest and most efficacious delivery of chiropractic care to the consumer. A contingent of panelists, chosen for their respective skills, directed the critical review of numerous studies and other evidence.

The process began with a detailed literature search which was broad in nature utilizing both electronic search vehicles including Medline and MANTIS, the Cumulative Index to Nursing and Allied Health Literature (CINAHL) as well as stack searches to ensure that all applicable literature relevant to vertebral subluxation in chiropractic clinical practice was gathered. To further ensure that all relevant literature and evidence was gathered and reviewed the panel held a second meeting to interview technique developers to ascertain the degree to which their procedures can be expressed in an evidence-based format. Individuals representing over thirty-five named techniques participated. Others made written submissions to the panel. The technique developers presented the best available evidence they had to substantiate their protocols and assessment methods.

A primary goal of the panel was to stimulate and encourage field practitioners to adapt their practices to improve patient outcomes. To achieve this objective, it was necessary to involve as many practitioners as possible in the development of workable guidelines. It was also important to the panel to secure input from field practitioners who would be one class of the end users of any guidelines produced.

Consistent with the recommendations of AHCP (now AHRQ), an “Open Forum” was held where any interested individual could participate. Practitioners offered their opinions and insights in regard to the progress of the panel. Field practitioners who were unable to attend the Open Forum session were encouraged to make written submissions. Consumer and attorney participants offered their input. A meeting was also held with chiropractic consultants and organizational leadership to secure their participation and gather feedback.

The literature and other information gathered during this process was then reviewed by a panel of experts who submitted critical review using an “Abstraction Form.” The reviews included questions on:

- Interventions
- Outcomes
- Harms
- Instrumentation & Analysis
- Spinal Analysis
- Study Findings
- Study Design Flaws

After sorting and evaluating the evidence gathered in the literature search, technique forum, leadership forum, written comments, open forum and the review process, the panel rated and categorized the evidence. After sorting, evaluating, rating and categorizing the evidence (rating and categorizing criteria is discussed later in this document) an initial draft of the guidelines was prepared and distributed to the panel for review and criticism. A revised draft was prepared based upon this input.

International input from the field was obtained when the working draft guidelines document was submitted to 195 peer reviewers in 12 countries. After incorporation of the suggestions from these reviewers, a final draft was presented to the panel for approval. This document was then submitted for proofreading and typesetting and was subsequently published.

### **Guidelines Development Process & Methodology**

Since the original 1998 version of the CCP Guidelines, much has been written on the subject of guidelines methodology and more information for guideline development has been made available. The Guidelines Panel made a concerted effort to review the literature on guidelines development and methodology prior to beginning the actual revision of the 1998 CCP Guides.

A detailed search of the guideline development methodology and implementation literature published since 1995 was undertaken by members of the guidelines committee and pertinent concepts and procedures incorporated into the process.<sup>18-59</sup> Particularly, the panel sought to more explicitly describe its methodology. While the methodology followed for the 1998 process was clearly described in various trade journals as well as amongst the participants, the CCP Guides were criticized for not describing its methods of development more clearly.

Unfortunately, these criticisms were at times based on guidelines development literature published only after the CCP guides were created and distributed. This new literature was reviewed carefully and the recommendations incorporated into the current process of revision and updating.

In particular the panel found the article by Shaneyfelt et al particularly helpful.<sup>18</sup> Many of the key elements outlined in the article were utilized in the development of the guidelines and are used as topic headings throughout this document. Table 1 summarizes these key elements.

### *Purpose of the CCP Guidelines*

The CCP has developed practice guidelines for vertebral subluxation and one of the purposes of these guidelines is to provide the doctor of chiropractic with a “user friendly” compendium of recommendations based upon the best available evidence. The purpose is to facilitate, not replace, clinical judgment and ultimately to improve the quality of health care.

These guidelines are for informational purposes, utilization of these guidelines is voluntary and they are not intended to replace the clinical judgment of the chiropractor. It is acknowledged that alternative practices are possible and may be preferable under certain clinical conditions. The appropriateness of a given procedure must be determined by the judgment of the practitioner and the needs and preferences of the individual patient.

It is not the purpose or intent of these guidelines to provide legal advice, or to supplant any statutes, rules, and regulations of a government body having jurisdiction over the practice of chiropractic.

These guidelines address vertebral subluxation in chiropractic practice, and do not purport to include all procedures which are permitted by law in the practice of chiropractic. They do not purport to include the management of conditions or clinical findings other than vertebral subluxation and its components. Lack of inclusion of a procedure in these guidelines does not necessarily mean that the procedure is inappropriate for use in the practice of chiropractic. The reader is encouraged to consult other guidelines that address the application of chiropractic in other clinical situations.

Participation in the guidelines development process does not necessarily imply agreement with the final product. This includes persons who participated in the technique conferences, leadership conference, open forum, and peer review process. Listing of names acknowledges participation only, not necessarily approval or endorsement.

The guidelines reflect the consensus of the panel, which gave final approval to the recommendations.

### **Rationale and Importance of the Guideline**

These guidelines for vertebral subluxation were developed because the Council and its constituents recognized the need for guidelines that deal specifically with the vertebral subluxation and its management. Other guidelines have been developed that address a myriad of conditions and symptoms reported to be amenable to chiropractic intervention and/or spinal manipulation.<sup>60-62</sup> These other guidelines blur the boundaries regarding care for the amelioration of various pain syndromes and at the same time blur the boundaries regarding the interventions used to affect a response. In addition, none of these guidelines have been updated since its original dissemination and one of them, the *Mercy Guidelines*, is approaching a decade since publication.

One of the rationales for the development of a guideline specifically addressing the clinical entity of vertebral subluxation is to bring clarity to the issue of what entities, conditions, disorders, or symptoms chiropractors deal with and the procedures they use. Clarity is considered an attribute of good practice guidelines by the Institute of Medicine.<sup>63</sup> An example of the clarity portrayed in the CCP Guides would be the distinction between the terms adjustment and manipulation. While a manipulation may be used by a host of health care providers to affect joint function, only the chiropractor uses the adjustment to reduce or correct vertebral subluxation. The CCP guides do not address the use of a chiropractic adjustment for any other clinical situation.

The importance of this distinction cannot be overemphasized since the profession of chiropractic entails many types of providers and the profession enjoys a broad scope in most if not all jurisdictions. Because of this latitude in scope of practice there are differing styles of practice based on the extent of the implementation of procedures and management by individual chiropractors. Some practitioners choose to practice at the extreme limits of their practice scope. This means that chiropractors in Oregon, for example, may choose to diagnose and treat gynecological problems because their scope allows for it and they desire to do so, or they may elect to strictly limit their practice to the detection and correction of vertebral subluxation.

It is the opinion of the Council that it would be prudent for those interested in the applications of gynecological diagnosis and management for example, to consult guidelines that address these issues as opposed to expecting that chiropractic guidelines address all conditions and disorders that a particular scope allows.

There have historically been groups of chiropractors in the profession that choose to practice in various ill defined categories where scope is the limiting or expanding factor. These various groups are becoming more clearly defined and as a result of this, more specific guidelines such as these that seek to address vertebral subluxation only, are extremely important.<sup>64</sup> The importance is manifested when chiropractors or organizations dialogue with payor groups, the government, legal issues/groups and especially the consumers of chiropractic services. Recent accreditation and legal issues confronting the chiropractic profession only serve to heighten the importance of these distinctions and the importance of guidelines that address them.<sup>65,66</sup>

The importance of a guideline that addresses vertebral subluxation is also illustrated by the widespread adoption of the Association of Chiropractic Colleges *Paradigm Statement*.<sup>67</sup> This Statement was discussed briefly in the 1998 CCP Guidelines publication, however since that time this Statement, developed and signed by the Presidents of all of the North American Chiropractic Colleges, has enjoyed unprecedented endorsement throughout the chiropractic profession.<sup>68</sup> It has received such widespread support that some have remarked that never in the history of the profession has there been this extent of agreement on anything. This statement has been endorsed and/or adopted by every major national and international chiropractic organization in the profession including:

- The World Chiropractic Alliance
- The Council on Chiropractic Practice
- The Council on Chiropractic Education
- The International Chiropractor's Association
- The American Chiropractor's Association
- The World Federation of Chiropractic
- The Congress of Chiropractic State Associations
- The Association of Chiropractic Colleges
- The Foundation for Chiropractic Education & Research
- The Federation of Chiropractic Licensing Boards
- National Board of Chiropractic Examiners
- The National Association of Chiropractic Attorneys

The Paradigm Statement defines the responsibility of chiropractors to include the detection and correction of vertebral subluxation and its resultant neurological interference. The existence of subluxation is in accordance with this paradigm statement and the ACC defines the purpose, principles and practice of chiropractic as the finding and reduction of vertebral subluxations, which will prevent and restore health by removing interference to the body's inherent recuperative powers.

This document, among other things, states that chiropractic as a profession "focuses particular attention on the subluxation."

Further to this, the majority of state laws and the United States Federal Government all define the responsibility of chiropractors to include the detection and correction of vertebral subluxation and its resultant neurological interference.

The assessment and management of vertebral subluxation is either taught as part of the regular curriculum of all chiropractic colleges in North America or as part of their post graduate programs. All of these programs, including the general curriculum of the chiropractic colleges and the post graduate programs, are approved and accredited by the Council on Chiropractic Education which is subject to the rules and authority of the United States Federal Government's Department of Education. These schools also hold accreditation through various local and regional accrediting bodies.

The Council on Chiropractic Education, mentioned above, accredits all of the chiropractic programs in the United States and has reciprocal arrangements with accrediting bodies in Europe and other regions. According to the Policies document of the CCE:<sup>69</sup>

The Council on Chiropractic Education (CCE) accepts the physiological principles of organization in living things and the manifestation of the self-regulatory mechanisms inherent in the body.

CCE accepts that the nervous system is vulnerable to disturbances resulting from derangements of the neurobiomechanical system, including the vertebral column and vertebral subluxations.

The educational process should be a reinforcement of the validity of the basic principles of chiropractic and an encouragement to the student to apply those principles in his or her clinical programs, with emphasis given to detection and correction of derangements of the neurobiomechanical system, including vertebral subluxation.”



The American Medical Association, in its Guides to the Evaluation of Permanent Impairment, lists the following as acceptable means to rate impairment:<sup>70</sup>

- Impairment due to loss of muscle power and motor function,
- impairment due to abnormal motion of the spine,
- impairment due to loss of motion segment integrity,
- impairment due to disc problems,
- impairment due to pain or sensory deficit, and segmental instability.

The above are, in fact, components of the Vertebral Subluxation Complex.<sup>71,72</sup>

The Guidelines for Evaluation and Management Services published by the Health Care Financing Administration of the United States Federal Government and the American Medical Association (May 1997)<sup>73</sup> outline what an objective examination should consist of and these include commonly used neuromusculoskeletal exam procedures within chiropractic such as: postural analysis, palpation, assessment for subluxation, range of motion and assessment of muscle tone. All of these are used to assess and manage subluxation and are specifically addressed by the CCP Guidelines.

The Federal Government of the United States specifically defines what chiropractors do as the detection and correction of subluxation under Medicare and Federal worker's compensation laws. Common to all state statutes is the adjustive process being utilized to reduce subluxations and the resultant interference to nerve transmission. A majority of states employ the term adjustment in licensing laws in reference to the procedures applied by chiropractors and others additionally include the concept of manipulation. A majority of states contain specific references to responsibility for neurological complications of biomechanical origin (subluxation) and over half the chiropractic profession practice in these states. In addition, many states specifically discuss the concept of subluxation in their statutes by using the term and for those that do not specifically use the term there is an implied understanding of the concept in their statutes.

The existence of subluxation and its acceptance is spelled out in explicit detail by published policy statements of chiropractic organizations<sup>74,75</sup> as well as federal and state laws regulating the practice of chiropractic. The epidemiology of subluxation has been researched since the inception of chiropractic over 100 years ago with basic science and clinical research to further elucidate the nature of it continuing to this day. Considering the centrality of vertebral subluxation to the practice of chiropractic and the profession, the importance of guidelines that specifically address it are clearly needed. This is especially true considering that other guidelines addressing chiropractic practice and procedures either do not address it at all or give only a cursory consideration.<sup>76-78</sup>

A few individuals within the profession contend that the existence of subluxation is questionable and have chided the CCP Panel for not addressing their contention in its earlier publication.<sup>79-81</sup> While the CCP Panel acknowledges that certain individuals and groups within the profession do make such an assertion, the Council does not take such contentions seriously. The above review of the subluxation within the chiropractic profession, government, state law, chiropractic educational bodies and scientific literature serves as evidence of its entrenched status. Further, according to Rome there are 296 variations and synonyms of subluxation used by medical, chiropractic and other professions leading him to remark "It is suggested that with so many attempts to establish a term for such a clinical and biological finding, an entity of some significance must exist."<sup>82</sup> Additional discussion to shed light on the concept of subluxation continues below.

## **Health Issue Addressed and Defined by the Guidelines**

### *Vertebral Subluxation*

The term subluxation has a long history in the healing arts literature and it may be used differently outside of the chiropractic profession. The earliest non-chiropractic English definition is attributed to Randall Holme in 1668. Holme defined subluxation as "a dislocation or putting out of joint."<sup>83</sup> In medical literature, subluxation often refers to an osseous disrelationship which is less than a dislocation.<sup>84</sup> However, B.J. Palmer, the developer of chiropractic, hypothesized that the "vertebral subluxation" was unique from the medical use of the term "subluxation" in that it also interfered with the transmission of neurological information independent of what has come to be recognized as the action potential. Since this component has yet to be identified in a quantitative sense, practitioners currently assess the presence and correction of vertebral subluxation through parameters which measure its other components.<sup>85</sup> These may include some type of vertebral biomechanical abnormality,<sup>86-92</sup> soft tissue insult of the spinal cord and/or associated structures<sup>93-127</sup> and some form of neurological dysfunction involving the synapse separate from the transmission of neurological information referred to by Palmer.<sup>128-135</sup>

As noted, chiropractic definitions of subluxation include a neurological component. In this regard, Lantz<sup>136</sup> stated "common to all concepts of subluxation are some form of kinesiologic[al...sic] dysfunction and some form of neurologic[al...sic] involvement." In the position paper of The Association of Chiropractic Colleges they defined subluxation as follows: "A subluxation is a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health."<sup>137</sup>

Other views of vertebral subluxation consider it consequent to a neurological response to physical, emotional, or environmental stress. The neurological response may precipitate or be precipitated by misalignment(s) between articulations of the spinal column or its immediate weight bearing components of the axial skeleton. The integrity of the nervous system is diminished as changes occur in morphology/oscillation/tension of the tissues occupying the neural canal and/or intervertebral foramina.

### ***Vertebral Subluxation & Evidence-Based Practice***

Evidence-based clinical practice is defined as “The conscientious, explicit, and judicious use of the current best evidence in making decisions about the care of individual patients... (it) is not restricted to randomized trials and meta-analyses. It involves tracking down the best external evidence with which to answer our clinical questions.”<sup>138</sup>

This concept was embraced by the Association of Chiropractic Colleges in its first position paper. This paper stated:

Chiropractic is concerned with the preservation and restoration of health, and focuses particular attention on the subluxation.

A subluxation is a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health.

A subluxation is evaluated, diagnosed, and managed through the use of chiropractic procedures based on the best available rational and empirical evidence.<sup>137</sup>

## **Participants in the CCP Guideline Development Process**

The CCP has developed practice guidelines for vertebral subluxation with the active participation of field doctors, consultants, seminar leaders, and technique experts. In addition, the Council has utilized the services of interdisciplinary experts in the Agency for Health Care Policy and Research (AHCPR), guidelines development, research design, literature review, law, clinical assessment, chiropractic education, and clinical chiropractic.

The Council additionally included consumer representatives at every stage of the process and had individuals participating from several major chiropractic political and research organizations, chiropractic colleges and several other major peer groups. The participants in the guidelines development process undertaken by the CCP and their areas of expertise are listed in Appendix 1.

Following the development of the guidelines and the construction of a draft of the final recommendations the guidelines were reviewed by over 250 peer reviewers. These reviewers were chosen based on several characteristics. See Table 2

The Guideline Panel, as well as the various reviewers, were solicited via several announcements for participants in trade journals and/or individuals were directly approached by representatives of the panel and asked to participate. Those who participated in the development and review of the 1998 process were encouraged to participate once again.

### *Mechanics of the Review*

The significant difference for the 2003 update and revision was the use of an on line review process. Considering the sheer number of reviewers, the cost and time involved in copying, mailing and waiting for feedback from this number of reviewers would have prohibitive. This model of on line review worked well and it is hoped that it will serve to assist other guidelines developers who face similar hurdles.

Essentially, the final draft of the guidelines revision was placed in a secure on line Forum where reviewers were required to provide a LOGON and PASSWORD to enter and access the draft. Once the individual reviewed the draft they then filled out an on line form with any recommendations or changes. Their response was immediately routed to the Project Manager for review and any needed action.

Recommendations for additions or changes to the draft based on this review were then circulated electronically to the Panel for feedback. Other than an Assistant to the Project

Manager no individual received remuneration for work performed on behalf of the Council to develop these guidelines.

### **Ratings and Categories of Evidence**

During the process of updating and revising the CCP Guidelines the issue of how to rate and categorize the evidence and scientific literature used resurfaced.

The original panel that developed the guidelines created a Ratings and Categories of Evidence system that they felt would best allow for a clear and easily understandable method of evaluating the evidence. This clarity served the panel well and it was felt this would also best serve the end user as well as any future evaluator of the guideline's quality since, as discussed previously, one of the attributes of a good clinical guideline has been defined as *Clarity*.

Other guidelines developers within the chiropractic profession have similarly developed their own ratings and category of evidence schemes.<sup>15,60,61</sup> The CCP reviewed these schemes and felt that while they might have served those other guidelines panels, they were too unwieldy and unnecessary in light of the fact CCP was limiting its guideline recommendations to a single clinical entity – vertebral subluxation. A review of the guideline development literature found no directive that one or another rating or category of evidence scheme held more promise than another nor that there was a method that was more valid or reliable. The consensus of the literature was that some method should be used and that method should be explicitly stated.<sup>63</sup>

The following ratings and categories were utilized in the original 1998 version of the CCP Guidelines and were also utilized in the updating and revision of the 2003 CCP Guidelines:

## **Ratings**

**Established.** Accepted as appropriate for use in chiropractic practice for the indications and applications stated.

**Investigational.** Further study is warranted. Evidence is equivocal, or insufficient to justify a rating of “established.”

**Inappropriate.** Insufficient favorable evidence exists to support the use of this procedure in chiropractic practice.

## **Categories of Evidence**

**E:** Expert opinion based on clinical experience, basic science rationale, and/or individual case studies. Where appropriate, this category includes legal opinions.

**L:** Literature support in the form of reliability and validity studies, observational studies, “pre-post” studies, and/or multiple case studies. Where appropriate, this category includes case law.

**C:** Controlled studies, including randomized and non-randomized clinical trials of acceptable quality.

## **Review, Updating and Revision of the 1998 Guidelines**

Since the guidelines process is one of continuing evolution, the Council on Chiropractic Practice did not endeavor to develop a set of guidelines and then cease to function. It was decided early in the process that the Council would continue to exist and that new evidence would be considered at periodic intervals to update the model of care defined by the guidelines. It was the decision of the Council on Chiropractic Practice to keep to the five-year recommendation of the National Guideline Clearinghouse for updating and revision.

In the spring of 2001 during the Council on Chiropractic Practice’s annual meeting, the Council began the process of updating the 1998 guidelines. One of the first steps was a meeting of technique developers and experts that occurred as part of the same CCP meeting. Additional technique systems that were not involved in the development of the

original document participated and those previously involved were invited to submit additional and/or supplemental material. Over 40 named technique systems were represented at this meeting. A Technique Panel was formed to facilitate the acquisition and review of material related to this topic and this Panel now totals some 125 individuals representing various techniques.

In the spring of 2002 during the annual meeting of the Council, the Guidelines Committee was reconstituted, a Project Manager was appointed and the further structure of the review, updating and revision was discussed and planned. A nearly identical process was used for the updating and revision. The Project Manager, who serves as Chair of the Guidelines Committee, assembled a panel of area experts who assisted in the search for literature, the subsequent gathering of that literature and its critical assessment.

As in the original process an “Abstraction Form” was utilized and suggestions for changes in the Ratings, Recommendations and Commentary were sought from this panel and the Guidelines Committee as a whole. The literature and other evidence utilized in the update spanned the time period between 1996-2003. The literature search was evidenced based and broad in nature adhering to Sackett’s admonition to track down “...the best external evidence with which to answer our clinical questions.” The panel relied heavily on the peer reviewed chiropractic literature as well as the general biomedical literature where applicable.

A detailed search of the guideline development methodology literature published since 1995 was undertaken by members of the guidelines committee and pertinent concepts and procedures incorporated into the process. Particularly, the panel sought to more explicitly describe its methodology. While the methodology followed for the 1998 process was clearly described in various trade journals as well as amongst the participants, the CCP Guides were criticized for not describing more clearly its methods of development.<sup>79-81</sup> Unfortunately, these criticisms were at times based on guidelines development literature published only after the CCP guides were created and distributed. This literature was reviewed carefully and the recommendations incorporated into this revision and updating.

A significant difference in the process for the updating and revision consisted of easier access to literature due to improvements in electronic searching and the developments of additional electronic databases that index chiropractic peer reviewed literature. The literature was searched utilizing MANTIS, CINAHL, The Index to Chiropractic Literature, Medline, individual electronic journal searches such as the *Journal of Manipulative and Physiological Therapeutics* and the *Journal of Vertebral Subluxation Research*. Hand and stack searches were also employed to assure the most extensive gathering of relevant literature. The document is currently scheduled for further updating and revision by August 2008.

## Effects of Chiropractic on Health Care Costs

### *Healthcare Costs: A National Dilemma:*

The cost of medical care in the United States exceeds one trillion dollars annually. These costs are rising. Policy makers need to consider strategies which reduce medical expenditures without compromising the health of our citizens.

Studies suggest that chiropractic care may result in significant savings of health care dollars. An analysis of an insurance database, compared persons receiving chiropractic care with non-chiropractic patients. The study consisted of senior citizens over 75 years of age. It was reported that the persons receiving chiropractic care reported better overall health, spent fewer days in hospitals and nursing homes, used fewer prescription drugs, and were more active than the non-chiropractic patients. The chiropractic patients reported 21% less time in hospitals over the previous 3 years.<sup>139</sup>

Another study surveyed 311 chiropractic patients, aged 65 years and older, who had received chiropractic care for 5 years or longer. Chiropractic patients, when compared with US citizens of the same age, spent only 31% of the national average for health care services. There was a 50% reduction in medical provider visits. The health habits of patients receiving maintenance care were better overall than the general population, including decreased use of cigarettes and decreased use of nonprescription drugs.<sup>140</sup>

These are but two recent studies demonstrating improved health outcomes and reduced costs associated with chiropractic care. In other studies chiropractic care in general and chiropractic care directed at reduction of vertebral subluxation has demonstrated positive effects on physiological outcome measures.

In a review of literature related to objective physiological changes following chiropractic care, Hannon discusses more than twenty studies documenting objective health benefits in subjects who were specifically described as “asymptomatic,” “healthy,” “normal,” or “free from physical injury.” Nearly an equal number of studies were found documenting objectively measured health benefits in subjects in which no symptomatic presentation was described.<sup>141</sup>

Potential benefits of increased chiropractic utilization may include reduced medical costs, improved productivity, and effective techniques for coping with stress. The benefits to society include economic and health-related issues. We encourage the further exploration of conservative, subluxation-centered chiropractic care on health outcomes and health care expenditures.



## **Patient Preferences**

While the CCP Guidelines were developed for a wide variety of interested parties the major group impacted by these guidelines are the consumers of health care services. An overriding theme as regards the establishment of health promotion activities is the concept of patient empowerment.<sup>142-143</sup> Patients must have the right to choose the type of health care they desire and not be restricted or forced to acquire their care from practitioners they do not wish to see, to have procedures they do not wish to have nor engage with systems of healing with which they disagree.

Every consumer of health care is ultimately responsible for his/her own health choices and the patient's expectations should be consistent with the provider's goals. If the patient perceives those goals as anything different, proper and safe choices cannot be assured. Thus, it is important to recognize that chiropractic is a limited, primary profession which contributes to health in one way by addressing the safe detection, location, and correction or stabilization of vertebral subluxation(s). It is important that the chiropractor take the steps necessary to foster proper patient perception and expectation of the practitioner's professional goals and responsibilities. Several topics related to this concept of patient preferences are discussed below.

## *Referral Issues*

Professional Referral: Professional referral requires authority and competence to acquire accurate information concerning matters within the scope and practice of the professional to whom a referral is made. There are two types of professional referrals made by chiropractors:

(A) Intraprofessional referral: Chiropractors, by virtue of their professional objective, education, and experience, have authority and competence to make direct referrals within the scope and practice of chiropractic. Such a referral may be made when the attending chiropractor is not able to address the specific chiropractic needs of a particular patient. Under these circumstances, the chiropractor may refer the patient directly to or consult with another chiropractor better suited by skill, experience or training to address the patient's chiropractic needs.

(B) Interprofessional referral: In the course of patient assessment and the delivery of chiropractic care, a practitioner may encounter findings which are outside his/her professional and/or legal scope, responsibility, or authority to address. The chiropractor has a responsibility to report such findings to the patient, and record their existence. Additionally, the patient should be advised that it is outside the responsibility and scope of chiropractic to offer advice, assessment or significance, diagnosis, prognosis, or treatment for said findings and that, if the patient chooses, he/she may consult with another provider, while continuing to have his/her chiropractic needs addressed.

## *Diagnosis*

While training and statute may allow the chiropractor broad diagnostic scope, chiropractors may also elect to limit their practice and diagnostic scope to the detection, characterization and care of vertebral subluxations, and determining the safety and appropriateness of chiropractic care.

There exists a wide variety of health care practitioners, systems of health care and cultural overlays that effect how the public utilizes health care services. While every practitioner should be sensitive to this wide variety of cultural and individual practices, it is not possible to dictate a particular class of provider that a patient must see for evaluation of unusual findings. This must be done on a case by case basis and must be a decision the patient is empowered to make.

Nothing here absolves the chiropractor from knowing the limits of his or her authority and skill, and from determining the safety and appropriateness of chiropractic care. The

chiropractor has a duty to disclose to the patient any unusual findings discovered in the course of examination, and may collaborate with other health professionals when it is in the best interests of the patient to do so.

### *Asymptomatic Care*

Chiropractic care to detect and correct vertebral subluxations may offer benefits for all people, including those who do not demonstrate symptoms of a disease or health condition.<sup>141</sup>

Therefore, the presence or absence of symptoms and/or a medical diagnosis should not be a factor in determining the need for or appropriateness of chiropractic analysis and/or adjustments, nor should the presence of symptoms be required by any chiropractic board, insurance company or court of law to justify the rendering of chiropractic care to any patient.

Further support for this can be found in the Association of Chiropractic Colleges' Position Paper No. 1, endorsed by all chiropractic colleges in the U.S. and Canada and virtually every chiropractic organization in the world. It states in part: "The practice of chiropractic includes: establishing a diagnosis; facilitating neurological and biomechanical integrity through appropriate chiropractic case management, and; promoting health" (section 3.0, The Chiropractic Paradigm).

The paper goes on to state: "Chiropractic is concerned with the preservation and restoration of health, and focuses particular attention on the subluxation; A subluxation is a complex of functional and/or structural and/or pathological articular changes that compromise neural integrity and may influence organ system function and general health; A subluxation is evaluated, diagnosed, and managed through the use of chiropractic procedures based on the best available rational and empirical evidence." (Section 4.0, The Subluxation). Nowhere does this defining document state or imply that chiropractic is to be used only for patients exhibiting symptoms.

The use of health care procedures on asymptomatic patients is commonplace in all medical and alternative care fields, both as a preventive measure and in recognition of the fact many health conditions do not exhibit outward signs, particularly in their early stages.

The need for chiropractic care by asymptomatic patients is one that has been widely supported by the chiropractic profession. It is estimated, based on the findings of an expert panel of seven chiropractic researchers, that 97% of the chiropractic profession provides chiropractic services to asymptomatic patients if subluxations are present.

A “Terms of Acceptance” is the recorded, written informed consent agreement between a chiropractor and the patient. This document provides the patient with disclosure of the responsibilities of the chiropractor and limits of chiropractic, and the reasonable benefit to be expected.

This enables the patient to make an informed choice, based on their preferences, either to engage the services of the chiropractor, aware of the intended purpose of the care involved, or not to engage those services if the proposed goals are not acceptable or not desired. This embodies the responsibility of assuring patient preference and safety by not providing false or misleading promises, claims or pretenses to the patient.<sup>144-150</sup>

### **The Role of Value Judgments**

Clearly the individuals involved in the development of these guidelines share common values regarding the existence of the vertebral subluxation and the importance of identifying its manifestation in patients, followed by its reduction and/or correction. This becomes obvious as one looks at the various backgrounds which the individuals bring to the process. It can also be said that the Panel’s views on the subluxation and the literature reviewed mirrors that of the average practicing chiropractor. This is evidenced by a recent study which found significant agreement amongst chiropractors regarding the concept of subluxation and how it is diagnosed and managed.<sup>151</sup>

Another issue that is somewhat apparent is the panel’s adherence to an evidence-based model for evaluation and characterization of vertebral subluxation. This additionally reflects the value placed on the objective identification of subluxation and assessment of outcome following the introduction of care intended to correct it.

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## **Council on Chiropractic Practice Clinical Guideline Number 1. Vertebral Subluxation in Chiropractic Practice. 2003 Update and Revision.**

The remainder of this document contains the changes, additions and revisions to the 1998 Council on Chiropractic Practice Clinical Guideline Number 1. Vertebral Subluxation in Chiropractic Practice and is organized in the following manner:

- A description of the changes, additions and revisions to the Recommendations, Sub-recommendations and Commentary as a result of the 2003 review.
- If changes to a Recommendation have been made this is listed and discussed.
- If changes in Commentary following any recommendation have been made this is listed and discussed.
- If changes to a Conclusion have been made this is listed and discussed.
- If additional literature on the topic was found and reviewed then these references are listed at the end of the chapter.
- If a Recommendation, Commentary or Conclusion was added that was not included in the 1998 Guidelines, this is noted.
- If a Recommendation, Commentary or the literature remains as it did in the 1998 guidelines a simple statement that the Recommendation, Commentary or literature remains unchanged follows that section/topic.

# **1 History and Chiropractic Examination**

## **CASE HISTORY**

**RECOMMENDATION** - Unchanged

**Commentary** - Unchanged

## **CHIROPRACTIC EXAMINATION**

**RECOMMENDATION** – Unchanged

**Commentary** – Unchanged

### **Elements of the Examination**

**History** - Unchanged

**Chiropractic Analysis** - Unchanged

**Clinical Impression** – Unchanged

**Initial Consultation** – Unchanged

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## **2 Instrumentation**

### **RECOMMENDATION – Unchanged**

**Commentary – Unchanged**

### **POSTURAL ANALYSIS**

**Sub-Recommendation – Unchanged**

**Commentary – Addition:**

It is recommended that posture also be assessed dynamically since vertebral subluxation has been implicated in altering postural dynamics.<sup>1</sup> High speed photography, electrogoniometry, accelerometry, electromagnetic, and videobased systems have all been used to measure the segmental positions and orientation of the moving body.<sup>2</sup>

### **BILATERAL AND FOUR-QUADRANT WEIGHT SCALES**

**Sub-Recommendation – Unchanged**

**Commentary - Unchanged**

### **MOIRE CONTOUROGRAPHY**

**Sub-Recommendation – Unchanged**

**Commentary - Unchanged**

## **INCLINOMETRY**

**Sub-Recommendation** - Unchanged

**Commentary** - Unchanged

## **GONIOMETRY**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **ALGOMETRY**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **CURRENT PERCEPTION THRESHOLD (CPT) TESTING**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **ELECTROENCEPHALOGRAPHY (EEG)**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **SOMATOSENSORY EVOKED POTENTIALS (SSEP)**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **SKIN TEMPERATURE INSTRUMENTATION**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **SURFACE ELECTROMYOGRAPHY**

**Sub-Recommendation** – Unchanged

**Commentary** - Unchanged

## **MUSCLE STRENGTH TESTING**

**Sub-Recommendation** - Addition:

Muscle strength and endurance testing may be used to ascertain and track muscle force generation and neuromuscular status. Clinically, it may be useful to quantify differences in strength between limbs or bodily segments. The evaluation of strength may be characterized by the experienced examiner based on various technologies. Manual, mechanized and computerized muscle testing may be used to determine changes in the strength and other characteristics of muscles. These changes may be a result or a cause of alterations of function at various levels of the neuromuscular system and/or any other system related to the patient. Such changes may be associated with vertebral subluxation.

Rating: Established

Evidence: E, L



### **Commentary – Addition:**

Vertebral subluxation may be associated with alterations in muscular strength and has the potential to affect multiple organ systems and overall health.<sup>141-144</sup>

## **QUESTIONNAIRES**

### **Sub-Recommendation – Unchanged**

#### **Commentary - Unchanged**

## **HEART RATE VARIABILITY - Added**

### **Sub-Recommendation – Added:**

Heart rate variability may be used to assess autonomic dysfunction associated with vertebral subluxation.

Rating: Established

Evidence: E,L

### **Commentary – Added:**

Variability in heart rate reflects the vagal and sympathetic function of the autonomic nervous system, and has been used as a monitoring tool in clinical conditions characterized by altered autonomic nervous system function.<sup>167</sup> Spectral analysis of beat-to-beat variability is a simple, non-invasive technique to evaluate autonomic dysfunction.<sup>168</sup>

Heart rate variability analysis has been used in the assessment of diabetic neuropathy and to predict the risk of arrhythmic events following myocardial infarction.<sup>169</sup> The technique has also been used to investigate autonomic changes associated with neurotoxicity,<sup>170</sup> physical exercise,<sup>171</sup> anorexia nervosa,<sup>172</sup> brain infarction,<sup>173</sup> angina,<sup>174</sup> and panic disorder.<sup>175</sup>

Normative data on heart rate variability have been collected.<sup>176-178</sup> This technology appears to hold promise for assessing overall fitness. Gallagher et al<sup>179</sup> compared age matched groups with different lifestyles. These were smokers, sedentary persons, and aerobically fit individuals. They found that smoking and a sedentary lifestyle reduces vagal tone, whereas enhanced aerobic fitness increases vagal tone. Dixon et al<sup>180</sup> reported that endurance training modifies heart rate control through neurocardiac mechanisms.

In occupational health, the effects of various stresses of the work environment of heart patients and asymptomatic workers may be evaluated using heart rate variability analysis.<sup>181</sup> Heart rate variability has been shown to be responsive to chiropractic care.<sup>182,183</sup>

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### **3 Radiographic and Other Imaging**

#### **RECOMMENDATION – Unchanged**

##### **PLAIN FILM RADIOGRAPHY**

**Sub-Recommendation** - Unchanged

**Commentary** – Unchanged

##### **DOSAGE AND SHEILDING**

**Sub-Recommendation** – Unchanged

**Conclusion** - Unchanged

##### **VIDEOFLUOROSCOPY**

**Sub-Recommendation** - Unchanged

**Commentary** - Unchanged

**Conclusion** - Unchanged

##### **MAGNETIC RESONANCE IMAGING**

**Sub-Recommendation** – Unchanged

**Commentary** – Unchanged

**Conclusion** – Unchanged

##### **COMPUTED TOMOGRAPHY (CT)**

**Sub-Recommendation** - Unchanged

**Commentary** - Unchanged

**Conclusion** – Unchanged

## **SPINAL ULTRASONOGRAPHY**

**Sub-Recommendation** – Unchanged

**Commentary** – Unchanged

**Conclusion** – Unchanged

## **RADIOISOTOPE SCANNING (Nuclear Medicine Studies)**

**Sub-Recommendation** – Unchanged

**Commentary** – Unchanged

**Conclusion** – Unchanged

## **Radiographic Digitizing Analysis - Added**

### **Sub-Recommendation - Added**

Computerized X-ray analysis may be used by chiropractors to objectively analyze the biomechanical and misalignment improprieties related to vertebral subluxation. Clinical necessity is justified for assessing the degree of insult and the effect upon the patient's health and future well-being by way of impairment rating.

Rating: Established

Evidence: E, L

### **Commentary - Added**

Diagnostic imaging methods may be utilized for obtaining information concerning the vertebral subluxation and other malpositioned articulations and structures, primarily the osseous misalignment component. Although advanced imaging can provide important information regarding foraminal alteration and possible nerve impingement, it is also possible to demonstrate aberrant motion and position which may impact upon the safety, appropriateness and outcome of chiropractic care.

Computer aided digitizing mensuration analysis software has demonstrated accuracy to 0.0023 mm. While hand mensuration should not be overlooked, it cannot approach the accuracy attainable with advanced computer technology. Computer aided digitizing mensuration analysis provides biomechanical analyses with a high degree of accuracy in order to make a chiropractic differential diagnosis and/or to determine care protocols. Mensuration also provides a definitive baseline for follow-up radiological examinations as an assessment of outcome.<sup>39-117</sup>

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## 4 Clinical Impression and Assessment

### RECOMMENDATION - Unchanged

#### Additions to Commentary

##### Instrumentation examination:

Heart Rate Variability

##### Imaging examination:

Radiographic Digitizing Analysis

*\*See Chapters on Instrumentation and Imaging for related Commentary and references*

### Record Keeping - Added

#### Sub-Recommendation – Added:

Since record-keeping practices may be technique/method specific and may depend on the practice objective of the practitioner, chiropractors should develop a method of reporting the care they provide to their patients that is consistent with their practice objectives. Record keeping systems for practitioners who limit their care to the analysis and correction of vertebral subluxation should minimally reflect the segments/regions adjusted and the techniques or methods employed if they are not self-evident. Other pertinent information may be included on an as needed basis.

*\*This Sub-recommendation is in no way meant to contradict other recommendations made in these Guidelines that address issues related to Outcome Assessment, History and Examination, Duration of Care and Instrumentation.*

Rating: Established

Evidence: E, L

## Commentary - Added

Since the determination of the necessity for past, present and future care can only be made when all relevant information is contained in the patient records, the issue of record keeping is an important one.

Many chiropractors provide care solely directed at addressing vertebral subluxation and its related components. The record-keeping practices of these chiropractors will normally contain descriptions of the care that is unique to his/her particular method or technique system. These methods for recording subluxation and their correction can be highly idiosyncratic. These recordings should be considered acceptable as long as they adequately describe the care being provided to reduce, correct or stabilize the subluxation.

Attending chiropractors should not need to provide anything more than a simple legend that describes any non-standard abbreviations or descriptions regarding their note taking. Notes indicating the level(s), type, positions, listing, coordinates of subluxation(s) should be considered adequate. Notes may also contain information regarding the methods used to correct the subluxation(s). If a particular method is to be used on each visit it should not be considered necessary that the attending chiropractor describe this each and every visit as this would be redundant. Brief notations as to any deviation from the plan should be considered adequate.

The S.O.A.P. format is one of several acceptable approaches to recording notes and it may be used with patients who have a symptomatic presentation. However, if a patient is undergoing "wellness" type care, does not present with symptoms, and is purely undergoing subluxation analysis and resultant reduction it may not be always be necessary to provide subjective reports (S) from the patient and/or a detailed assessment (A). The notes in such a case may only indicate the information pertaining to the objective, subluxation oriented chiropractic findings and the resultant plan to correct them during that visit. The assessment (A) might be considered redundant in such a case since this information (listings, coordinates, segments adjusted etc) may exist in the objective (O) section. Further, if the practice objective of the chiropractor is narrowly focused on subluxation then the practitioner may not have a listing of diagnoses other than subluxation and these might be listed in the objective section already. More detailed assessments as to long term response to care may be handled during re-examinations. Chiropractic spinal evaluation, evaluation for subluxation and other similar terms should be considered an appropriate subjective (O) notation when applicable.

Beyond the plans (P) for that particular visit additional notations regarding future plans may or may not be necessary depending on the type of care or method being rendered.

Simply noting that the patient should return as needed (PRN) should be considered acceptable depending on the nature of the case.

Other note taking formats should be considered acceptable such as DAP notes.

D = DATA

A= ASSESSMENT

P= PLAN

In this system, the subjective and objective portions of the note are combined and might be more amenable to chiropractic note taking where the practitioner's goals revolve more around wellness care. Other similar methods of note taking should be considered acceptable as long as pertinent information is provided. The use of abbreviated notations, examination checklists, and computerized notation systems should be encouraged and considered acceptable as long as patient care is not compromised.

The construction of detailed narrative reports or progress reports may be advantageous in a situation involving litigation or reporting to a third party for various reasons. If this is necessary for the third party to make a decision regarding payment or some other need, then the requesting party should expect to compensate the attending chiropractor for his or her time, effort and energy expended to compile such a detailed report. Administrative costs and time associated with the recording, storage, copying and retrieval of patient records, if overly burdensome, can interfere with what is best for the patient, may distract the doctor from the task at hand, and use up valuable resources.

The performance and/or recording of extraneous examination procedures that are not germane to the evaluation of a particular patient should be discouraged as this wastes time, money and energy and adds nothing to the patient's health benefit. This would include any mandate that an attending chiropractor perform some predetermined procedure(s) such as provocative orthopedic maneuvers or extensive neurological examination procedures, especially if these procedures have been shown to be unreliable or invalid.

The determination of the need for such procedures should be made on a case-by-case basis and considered necessary only if indicated by the patient's presenting complaints or if a need becomes apparent through the patient history or initial examination findings and so long as they are consistent with the chiropractor's practice objective.

If the performance of a particular examination procedure will add nothing to the determination of what the attending chiropractor is going to do with the patient then it should be apparent that this procedure is not necessary in the care of that particular patient.

## **Peer Review & Chiropractic Necessity - Added**

### **Sub-Recommendation - Added**

**The purpose of chiropractic peer review is to determine if the services rendered to the patient were necessary from a chiropractic perspective.**

**The general standard for necessary care is any care, therapeutic treatment, or services reasonably expected to improve, restore or prevent the progression of any illness, injury, disease, disability, defect, condition or the functioning of any body member. This is understood to include care provided to detect the existence of vertebral subluxation and the care provided to reduce or correct it.**

Rating: Established

Evidence: E,L

### **Commentary - Added**

Chiropractic peer review should be based on the best available rational and empirical evidence as it is reflected in journals of established repute, current national and state guidelines/regulations, and other chiropractic literature. Factors used in peer review should be based on widely and generally accepted standards for rendering determinations of the necessity of chiropractic care. In many instances of chiropractic and medical treatment for specific conditions, there is little or no documented scientific evidence for the treatment provided. In those cases where no such evidence exists, the fact that there is no evidence does not render the provided care and treatment unreasonable or unnecessary.

If the care was provided to reduce vertebral subluxations then this is the outcome measure to be assessed. Further, care is considered reasonable and necessary if any of the following criteria are met:

1. It was reasonably expected to improve the patient's condition at the time it was rendered;
2. It has improved the patient's condition;
3. It prevented the onset of any permanent disability;
4. It assisted the patient to achieve maximum functional capacity in performing the patient's daily activities;
5. It alleviated the patient's pain and/or mitigated the severity of the patient's symptoms;
6. It ameliorated the patient's condition;
7. It provided relief of the patient's pain;
8. It prevented the worsening of the patient's condition;
9. It slowed the natural progression of the patient's condition or disease;
10. It was appropriate for the patient's symptoms, re-injuries, exacerbations and diagnoses of the patient's conditions or injuries;
11. It was provided consistent with the attending treating doctor's diagnosis; and/or
12. It was provided consistent with the patient's active symptomatology and/or abnormal physical/chiropractic findings.

Chiropractic reviews should specifically reference the above criteria when making chiropractic necessity determinations, and state why any of these criteria were satisfied or why they were not. In order to be reliable and credible, the chiropractic peer review should be specifically referenced and the evidence and basis of the rationale for the review should be easily identifiable. While the peer review is the opinion of the reviewer it cannot be random and without proper justification. Should the reviewer reference any literature or guideline source, the reviewer should document and explain specifically how that reference applies to the treatment in question, and the reference should be directly quoted from the source used, and include the exact wording and page number.

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and without proper justification. Should the reviewer reference any literature or guideline source, the reviewer should document and explain specifically how that reference applies to the treatment in question, and the reference should be directly quoted from the source used, and include the exact wording and page number.

Careful application of literature is necessary to ensure the efficacy of a chiropractic review. It is essential that any such application consider all of the specific factors and circumstances surrounding the individual case. The reviewer is expected to accurately and specifically include remarks regarding any and all complicating factors and individual circumstances which may have affected the treatment provided, thereby precluding the validity and application of a generic reference to a specific case. All complicating factors and special circumstances may not be apparent in the case documentation. As such, in order to have all of the information regarding the case, the reviewer should make every attempt to consult with the attending chiropractor in order that he/she can consider all factors and circumstances regarding the case. Any additional information the reviewer obtained from this consultation should be noted in the review.

The quality, consistency and reliability of chiropractic peer review varies greatly. There are many external forces which affect this, not the least of which is the fact that in the chiropractic profession, few, if any peer reviews are performed for the primary purpose of ensuring quality patient care. In most instances, the reviewer has a relationship with a peer review organization or insurer, and many understand that their future relationship is dependent upon their ability to provide reasons with which the insurer can deny reimbursement. The reviewer has no ethical or fiduciary relationship with the patient, but often has financial incentive and motivation to undermine the case for the benefit of the insurer, without regard for the actual necessity of the care.

In addition, the criteria used for peer review determinations is not consistent and national, state and local governments more often than not fail to provide regulations for the determination of chiropractic necessity. As such, the system and environment in which chiropractic peer review occurs encourages peer review abuse, as there are no adverse consequences for this type of unethical conduct.

Recent evidence points to the fact that a review of records by an individual practitioner has poor inter-examiner reliability and is not a reliable method for determining a treating doctor's compliance to standards of care.

The methods for conducting peer reviews outlined here have been devised for the purposes of correcting this problem. The tenets outlined above provide the opportunity for consistency in peer review based on fair standards. A chiropractic practitioner should

never review a case based on his/her opinion without first considering the above-mentioned standards.

In the event that one doctor's opinion is used with disregard to the above-mentioned principles, it is recommended that the treating doctor have the case reviewed by one or more independent chiropractic practitioners utilizing these principles.

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## **5 Reassessment and Outcomes Assessment**

**RECOMMENDATION** – Unchanged

**Commentary** – Unchanged

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## **6 Modes of Adjustive Care**

### **RECOMMENDATION – Unchanged**

#### **Additional Commentary**

Attempts have been made by certain regulatory and licensing agencies, state boards, insurance companies and managed care organizations to categorize certain chiropractic technique systems as more efficacious than others. These categorizations are then used to disallow the use of the technique, deny entrance into a managed care program or sanction the chiropractor for utilizing such a technique. Many times these categorizations are based upon such items as whether they are part of the regular educational program at chiropractic institutions and/or are substantiated by the existence of peer reviewed literature.

Since the Missions of chiropractic educational institutions and programs are not uniform, it is unrealistic to expect that all institutions would expose their students to specific techniques. Further, additional techniques are offered through the postgraduate programs of many chiropractic institutions, state association conventions and various other educational programs affiliated with the profession.

Since there are purported to be over 300 named techniques in use within the profession it is unrealistic to expect that every chiropractor would be proficient in each of these techniques. Lastly, these 300 plus techniques have not been compared to one another in such a fashion that any individual or group could ascertain that one technique is more efficacious than another.

Given the state of research regarding the efficacy of techniques and technique systems the best empirical evidence suggests that direct and indirect measures of outcome related to vertebral subluxation and its components are the manner to best determine efficacy of technique application. Examples of these include various health outcomes, physical, biomechanical and physiological measurements – many of which are discussed in these guidelines.

#### **Conclusion - Unchanged**

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## 7 Duration of Care for Correction of Vertebral Subluxation

### **RECOMMENDATION – Unchanged**

#### **Additional Commentary**

Chiropractors are encouraged to employ a clinically driven variable length of care format in which the duration of care is determined by each individual patient's progress toward meeting measurable objectives, set in individualized care plans and identified during individual assessment. This application ensures that patients are not over- or underutilizing a health-care resource and are currently receiving the best possible care.

When developing a care plan based on reduction, correction and stabilization of the subluxation the attending chiropractor should take into consideration many associated and aggravating factors. These will include details about the extent and character of the patient's subluxations. For example: How long have they been subluxated? How is this subluxation affecting biomechanics, their nervous system, muscles, ligaments and involved joints? The relationship between X-ray findings, chiropractic and physical exam findings and instrumentation readings may need to be correlated.

It is important to consider the patient's age in respect to their subluxations and how the age will impact the outcome. Since physical trauma is one of the potential causes of subluxation it is important to consider whether or not the patient had previous injuries, traumas or accidents. This should not be limited to single instances of trauma but also consider repetitive injuries, microtrauma on a daily basis etc. These should all be considered in terms of how they will interfere with subluxation correction and affect long term outcome.

Other co-existing health conditions may also affect the patient's response to care since if a patient is dealing with chronic health problems of any sort this may impede progress. The patient's work and home life demands may also have a bearing on how much of a correction they attain and should be considered in determining a care plan and prognosis. The patient's sleeping habits may interfere with long-term correction and stabilization of the subluxation and should be considered.

A patient's ability to exercise or their lack of compliance to a prescribed exercise regimen may impede their progress and diminish their response. And in some cases, the patient's weight may have a bearing on their recovery. Other factors include smoking, alcohol, nutritional problems and socio-emotional aspects of their life.

Justification for high frequency initial and extended wellness care plans should be based on a combination of basic science, technique, objective assessment of physiological function, structural changes and quality of life issues. The practitioner should ideally choose from several of these to develop their care plan and to justify its implementation.

No matter which of the various models of vertebral subluxation one chooses to address in clinical practice there are two components that are common to all models. These components are

Kinesiopathology and Neuropathology. Kinesiopathology deals with issues related to misalignment and/or abnormal motion and neuropathology deals with the neurological changes related to the abnormal motion and/or misalignment.<sup>1</sup>

In discussing kinesiopathology the most significant basic science information relative to this is Wolf's Law, which states:

As bones are subjected to stress demands in weight bearing posture, they will model or alter their shape accordingly.<sup>2</sup>

Wolf's Law has a less well-known corollary for soft tissue called: Davis' Law that states:

Soft tissue will model according to imposed demands.<sup>3</sup>

These two Laws form the foundation of the rheology associated with subluxation and these rheological properties are essential elements in the epidemiology of vertebral subluxation, which must be considered with regards to care plans that have as their goal to make structural changes. Rheology is the study of the change in form and the flow of matter including elasticity, viscosity and plasticity. The longer a subluxation is allowed to set in the further along the path of immobilization degeneration the subluxation is allowed to progress.<sup>4</sup> The extent of immobilization degeneration and the patient's individual ability to reverse it may be a determining factor in the frequency of the initial care plan and its duration. This will also affect long term care whether from a palliative or wellness perspective once a substantial correction has been made.

The other significant basic science issue related to frequency and duration of care has to do with neuroplasticity.<sup>5-14</sup> This has to do with the nervous system's propensity to undergo "plastic" changes and learn to habituate a response and is a fundamental aspect of the nature of self-regulating repair processes that use the plasticity of the nervous system as it's conduit. In order to overcome plastic neurological changes that have set in secondary to subluxation the nervous system will need to "rewire" in order to create new plastic changes for the better. This may necessitate frequent adjustments and other inputs into the CNS over a long duration in order to make these changes. This neuroplasticity and the accompanying rheological changes discussed above secondary to subluxation are what need to be overcome in order for the patient to have a reduction in vertebral subluxation.

### **Vertebral Subluxation and Well-Being**

The 1996 Paradigm Statement by the Association of Chiropractic College includes a section titled "Health Promotion" where it states that:

"Doctors of Chiropractic advise and educate patients and communities in structural and spinal hygiene and healthful living practices."<sup>15</sup>

Another key aspect articulated in the ACC document concerns case management issues. It outlines, in a generic way, how chiropractors conduct themselves on a clinical level:

"Doctors of Chiropractic establish a doctor/patient relationship and utilize adjustive and other clinical procedures unique to the chiropractic discipline. Doctors of Chiropractic may also use other conservative patient care procedures, and, when appropriate, collaborate with and/or refer to other health care providers."

The CCP Guidelines address a distinct manner in which chiropractic clinicians utilize the information, feedback and empirical results each case accumulates. For this reason, the Guidelines are not linked to various diseases or conditions the patient may or may not have, before or after care has initiated. The World Health Organization defines health as being "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."<sup>16</sup> Given this broad definition of health, epistemological constructs borrowed from the social sciences may demonstrate health benefits not disclosed by randomized clinical trials. Health benefits such as improvement in self-reported quality-of-life, decreased health care costs, behaviors associated with decreased morbidity, and patient satisfaction may be evaluated using such methods.

This performance-based domain focuses the doctor-patient relationship on the standards set by personal baselines and establishes guidelines for the utility of various chiropractic techniques. This type of chiropractic care is in a context with other non-invasive disciplines and is stratified into discrete application-based domains across a spectrum of parameters related to well-being.

Techniques and methods for correcting subluxation must be judged on their intended outcome and most if not all chiropractic techniques have some physiological and/or structural outcome that measures their results. Further, some techniques have as their goals - improvement in quality of life, an improved sense of well-being and a better sense of relationship with the patient's environment and society.

Several studies discussed previously warrant further discussion in this context. Blanks, Schuster and Dobson<sup>17</sup> published the results of a retrospective assessment of subluxation-based chiropractic care on self-related health, wellness and quality of life. This is the largest study of its kind ever undertaken regarding a chiropractic population. After surveying 2,818 respondents in 156 clinics, a strong connection was found between persons receiving chiropractic care and self-reported improvement in health, wellness and quality-of-life. 95% of respondents reported that their expectations had been met, and 99% wished to continue care.



Coulter et al<sup>18</sup> performed an analysis of an insurance database, comparing persons receiving chiropractic care with non-chiropractic patients. The study consisted of senior citizens over 75 years of age. It was reported that the persons receiving chiropractic care reported better overall health, spent fewer days in hospitals and nursing homes, used fewer prescription drugs, and were more active than the non-chiropractic patients.

Rupert, Manello, and Sandefur<sup>19</sup> surveyed 311 chiropractic patients, aged 65 years and older, who had received "maintenance care" for five years or longer. Chiropractic patients receiving maintenance care, when compared with US citizens of the same age, spent only 31% of the national average for health care services. There was a 50% reduction in medical provider visits. The health habits of patients receiving maintenance care were better overall than the general population, including decreased use of cigarettes and decreased use of nonprescription drugs. Furthermore, 95.8% believed the care to be either "considerably" or "extremely" valuable.

Rupert<sup>20</sup> reports that 79% of chiropractic patients have maintenance care recommended to them, and nearly half of those comply. In an online survey with 3018 respondents by Miller,<sup>21</sup> 62% responded affirmatively when asked, "Although you feel healthy, would you follow your family member's lead and visit a doctor who focuses on wellness and prevention just so you can stay feeling that way?"

Three additional studies have addressed this issue since the publication of the 1998 Guidelines. One of the studies consisted of a three arm randomized clinical trial with two control groups (one of which was placebo controlled). This was a single blind study utilizing subluxation-centered chiropractic care implemented in a residential addiction treatment setting.<sup>22</sup> A total of 98 subjects (14 female and 84 male) were enrolled in the year and a half study. 100% of the Active (chiropractic) group completed the 30-day program, while only 24 (75%) of the Placebo group and 19 (56%) of the Usual Care group completed 30 days.

The Active group showed a significant decrease in anxiety while the Placebo group showed no decrease in anxiety. The frequency of visits to the Nurse's station was monitored during the course of the study and among the Active treatment group only 9% made one or more visits, while 56% of the Placebo group and 48% in the Usual Care group made such visits. This poor performance by the placebo group suggests that the chiropractic care had no positive placebo effect.

Treatment was five days per week over a period of 30 days, for a total of 20 treatment encounters. Therefore, a 100% retention rate was achieved in a residential treatment setting using subluxation-centered chiropractic. The possible mechanism for such a response is elaborated on in an earlier paper by Holder et al, in which they describe the Brain Reward Cascade in relationship to vertebral subluxation and its role in resolving (RDS) Reward Deficiency Syndrome.<sup>23</sup>

A third study by Blanks et al. looked at the degree to which chiropractic intervention affected a change in a healthy lifestyle. The study found that chiropractic care users do tend towards the practice of a positive health lifestyle, which also has a direct effect on reported improvements in wellness. These empirical links are relative to the sociodemographic characteristics of this population and show that use of chiropractic care is an aspect of a wellness lifestyle.<sup>24</sup>

Chiropractors have historically recommended initial care plans that involve a high frequency of visits as well as extended care plans of long duration to encompass corrective care and wellness based care. Care plans that do not base care solely on the presence or absence of symptoms have as their basis some very fundamental scientific laws that govern the connective tissue and neurological responses to abnormal biomechanical loads and neurological interference while also addressing the quality of life issues discussed above. The goal of care becomes the reversal of these insidious processes and an enhanced sense of well-being so that any judgment of that care must take into consideration those outcomes as well as outcomes related to the technique being applied.

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## **8      Chiropractic Care of Children**

**RECOMMENDATION – Unchanged**

**Commentary - Unchanged**

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## **9 Maternal Care - Added**

### **RECOMMENDATION - Added**

**A woman's body experiences numerous biomechanical adaptations and physiological changes during pregnancy. These changes may have an adverse affect on her neuro-musculo-skeletal system.**

**Because of these physiological and biomechanical compensations, practitioner care must be taken to select the specific analysis and adjustment most appropriate for the complex changes during the various stages of pregnancy.**

**The increased potential for spinal instability in the mother and the resulting subluxations in the woman's spine throughout pregnancy affect the health and well-being of both her and her baby. This warrants regular chiropractic check ups in all women throughout pregnancy.**

**Patient education pertinent to chiropractic care in pregnancy is encouraged.**

Rating: Established

Evidence: E,L

### **Commentary - Added**

The doctor of chiropractic plays an essential role in both the mother and baby's musculoskeletal and nerve system care throughout pregnancy and in preparation for birth.

Varney's Midwifery text states:

“The potential for damage in pregnancy and the postpartum period to a woman's neuro-musculo-skeletal structure is great. Shifts in the center of gravity forward and slightly up destabilize her posture and realign the carriage of weights and forces through her joints, predisposing nerves, muscles, bones, and connective tissues to damage. Increased levels of relaxin and elastin further aggravate this situation.”<sup>1</sup>

Gait compensations and increased biomechanical loads lead to further strain on spinal segments and their supporting structures.

Female sacroiliac joints tend to be flatter, with a wider retroarticular space and longer interosseous ligaments, all promoting greater mobility.<sup>2</sup> As hormonal changes affect supporting musculature and ligament laxity, there is an increase in spinal and sacroiliac articulations compensation and mobility. If a motion segment is compensating for a lack of mobility at an adjacent level, then these segments may become more hypermobile.<sup>3,4</sup>

Forester and Anrig write:

“Maternal weight gain is most significant during this gestational period. This contributes largely to the profound biomechanical compromise of the lumbosacral spine. With a drastic shift in the gravitational weight bearing of the mother, pelvic musculoskeletal function, principally of the sacroiliac and hip joints is imperiled. This leads to often significant soft tissue structure changes such as hypertonicities or ligament laxity, which in turn creates biomechanical instability. Not just the lumbosacral spine but compensatorily, the thoracic and even cervical spine acquire a diversity of combinations of aberrant segmental and global motion. The unfortunate typical short radius sacral curve of later pregnancy provides the foundational imbalance for thoracic hyperkyphosis and cervical hypolordosis. Cellular edema and inflammation, along with anatomical yielding of the intervertebral foraminae, generate neurophysiology of the important spinal nerve tissues with resultant cellular and aggregate tissue malfunction. Summarily, the potential for extensive vertebral subluxation complex in the maternal patient is physiologically inherent for the last 3 gestational months.”<sup>5</sup>

Varney’s midwifery states, “In the antepartal period, changes in posture occur gradually and can be responsible for a great many discomforts over the course of the pregnancy.”<sup>6</sup> The prevalence of low back pain during pregnancy can be as low as 42.5%<sup>7</sup> and as high as 90%.<sup>8</sup> One study revealed that 28% of women experience back pain by the twelfth week of gestation.<sup>9</sup> Because of the biomechanical compensations discussed above, it is not unusual for pregnant women to experience pain in multiple areas of her spine including sacral, lumbar, thoracic, cervical and cranial.

Currently, most published research on chiropractic care in pregnancy addresses the efficacy of the adjustment for low back pain. One study revealed that 75% of women who received chiropractic adjustments during their pregnancy stated that they experienced relief of their pain and discomfort.<sup>10</sup>

Additionally, neurological conditions are associated with subluxations in pregnancy including: neuralgia, paresthesia, brachial, intercostals and sciatic neuralgia, coccygodynia, carpal tunnel syndrome, Bell’s palsy and traumatic neuralgia.<sup>11</sup>

In studies done on laboratory animals a relationship between vertebral lesions in the lumbar area and interference to physiological function of that region were noted. It is also suggested that upper cervical lesions contributed to physiological disturbances in the mother such as: cardiac and thyroid malfunction, and sexual disturbances. Of further interest was that lesions in these laboratory animals produced miscarriages, behavioral changes, premature births, stillbirth, “runty” offspring, and early death of the young.

In human pregnancy, Burns noted that women with vertebral lesions had pregnancies and labors that were abnormal compared with non-lesioned pregnant women. Further, various obstetrical complications occurred with mothers suffering from lumbar lesions.<sup>12,13</sup>

In regards to the health of the developing young rabbits, the offspring of lesioned mothers demonstrated stunted growth, erratic behavior, slow development and implications of anatomic deformities.<sup>12</sup> Chiropractic author and researcher, Plaughter recommends that additional studies are clearly warranted based on these results with animals.<sup>14</sup>

Subluxation of the sacrum in the pregnant pelvis is a major contributing factor to intrauterine constraint. Forrester and Anrig report:

“Specifically, sacral rotation causes an anterior torquing mechanism on the uterine ligaments and musculature, decreasing space and altering the environment for the fetus... When correction of the sacral subluxation occurs, the structure and therefore the function of the uterine structures are improved allowing the fetus to position itself properly.”<sup>15</sup>

Constraint in the uterus contributes to abnormal fetal positioning in pregnancy and labor. Fetal presentations other than cephalic or positions other than anterior may result in frequent birth complications for the mother and baby.

Intrauterine constraint in pregnancy may cause irregular spinal development of the fetus as well. Compromised spinal development of the baby may have permanent adverse effects on the baby’s nerve system. Forrester and Anrig write:

“The critical effects of in-utero constraint involve the biomechanical considerations on fetal development, the potential for a reduced efficiency in labor resulting in a longer harder labor process with an increased incidence of anoxia, brain damage, asphyxia, prolapse of the umbilical cord and intrauterine death and a greatly elevated propensity toward operative delivery which exacerbates the danger of trauma to the neonate.”<sup>16</sup>

One specific chiropractic analysis and adjustment, the Webster Technique, has been utilized to correct sacral subluxation and therefore reduce the effects of intrauterine constraint.<sup>17-19</sup> The Webster Technique is defined as “a specific chiropractic analysis and adjustment that reduces interference to the nerve system, facilitates balance in the pelvic and abdominal muscles and ligaments, which in turn reduces constraint to the woman’s uterus allowing the baby to get into the best possible position for birth.”<sup>20</sup>

There are several textbooks and reference manuals in chiropractic which each address the importance of chiropractic care in pregnancy.<sup>21-25</sup> Each book includes some or all of the reasons for chiropractic care throughout pregnancy discussed above.

In addition to being aware of the available research, textbook writings and the chiropractor's clinical experience supporting the importance of chiropractic care in pregnancy for safer and easier births, it is important that the doctor of chiropractic understand the physiological causes of dystocia in labor and the potential the chiropractic adjustment has in reducing the causes of dystocia. Dystocia is abnormal function in labor and the number one cause for invasive intervention that results in trauma and subluxation in the mother and infant.

In Williams Obstetrics, the authors define dystocia as "Abnormal Labor." They further emphasize, "Dystocia is very complex, and although its definition - abnormal progress in labor seems simple, there is no consensus as to what 'abnormal progress' means. Thus, it seems prudent to attempt a better understanding of normal labor in order to determine departures from normal."<sup>26</sup>

Williams Obstetrics defines the causes of dystocia to be:

1. Abnormalities of the expulsive forces— either uterine forces insufficiently strong or inappropriately coordinated to efface and dilate the cervix (uterine dysfunction), or inadequate voluntary muscle effort during the second stage of labor. (*Power*)
2. Abnormalities of the maternal bony pelvis— that is pelvic contraction (*Passage*)
3. Abnormalities of presentation, position, or development of the fetus (presented in chapter 19) (*Passenger*)
4. Abnormalities of the soft tissue of the reproductive tract that form an obstacle to fetal descent.<sup>27</sup>

When examined from a structural perspective, each of these causes may be prevented with specific chiropractic analysis and adjustment of the pregnant woman's spine throughout pregnancy. In other words, each cause of dystocia is addressed with specific, regular chiropractic care throughout pregnancy.

Correlating the causes of dystocia with the corrective accomplishments of the chiropractic adjustment is as follows:

1. Uterine dysfunction may very well be caused by a decrease in nerve innervation to the uterus which normally initiates strong contractions and maintains adequate muscle function throughout labor. Specific segmental care throughout pregnancy restores adequate nerve supply and therefore normal function to the uterus.
2. Pelvic contraction is defined as misalignment of the pelvic bones caused by physical trauma to the woman. Specific chiropractic adjustments offer the potential for pelvic realignment reducing pelvic contraction.
3. Abnormalities of presentation, position or development are known to be caused by intrauterine constraint. Preliminary studies with the Webster technique are demonstrating the efficacy of reducing intrauterine constraint to the woman's uterus.
4. Preliminary, clinical findings are showing reduction in fibroids and migration of placenta attachment to more desirable positions while the patient is under chiropractic care.

There is much to be done in the research arena to continue to substantiate the efficacy of chiropractic care in pregnancy. Beyond the presence of back pain or other symptoms, chiropractic care during pregnancy offers promise for easier and safer deliveries for both the mother and baby. All pregnant women should be routinely examined throughout pregnancy by a Doctor of Chiropractic for the presence of vertebral subluxation. Facilitating a healthy pregnancy and restoring a normal physiological environment for natural birth is well within the chiropractic scope of practice.

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## **10 Patient Safety**

**RECOMMENDATION** – Unchanged

**Commentary** - Unchanged

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## 11 Professional Development

### RECOMMENDATION – Addition:

**The science, art and philosophy of chiropractic, and hence its practice, continues to expand in understanding and development. Continuing professional development, as in all responsible health professions, is a necessary component of maintaining a high standard for both the practitioner and the profession. Continuing development should be directed to areas germane to each individual practice, including but not limited to credentialing, continuing education programs, participation in professional organizations, technique protocols and application, radiographic and other imaging, instrumentation, philosophy, research, practice liability issues, legal issues, and ethics.**

**Since all state licensing jurisdictions are ultimately responsible for patient health and safety, these guidelines recommend that all subjects congruent with state law be considered appropriate for continuing education credits in respective states.**

Rating: Established

Evidence: E, L

### Commentary - Addition

Continuing professional development is currently widely mandated by most licensing jurisdictions, or encouraged through most professional organizations. Perhaps the most compelling reason for advocating this type of on-going education is to afford practitioners the opportunity to keep abreast of the most current developments in chiropractic which serve to enhance patient care and safety. To maintain the continuing level of education (both voluntary and mandatory) an affordable fee for even the beginning practitioner is desirable.

The fact that most programs are conducted by individuals skilled in the topics presented also provides a high level of knowledge and information delivered in a relatively short period. Thus, professional development serves not only the practitioner, but also the patient through a broad base of acquired skills that benefit both.

In addition to formal postgraduate education courses, other opportunities for professional development may include:

- Reading scholarly journals
- Attending scientific symposia
- Participation in research
- Publication of clinical and scientific papers
- Audio and videocassette courses
- Teleclasses
- Distance education programs

There has been an emphasis on moving from an input-based system to an outcomes-based system regarding continuing education. That is, proposals to modify existing continuing education offerings in the chiropractic profession to reflect adult learning models. Up to the present, continuing education has emphasized passive learning approaches that have as their chief outcome measure some sort of documentation that the doctor sat through a particular number of hours in the subject. This tells the licensing body nothing about what was learned or what competency was achieved. Likewise, it drives the practitioner's focus not toward mastery or applicability to day-to-day practice, but rather toward satisfying a numerical requirement. None of the recent literature reviewed discussed using periodic examinations of licensed practitioners as a way to ensure continued professional development and competence, although some of the chiropractic news press has reported that this is a looming possibility.

To be more specific, the literature on this subject reports that the driving factors in ongoing professional development include increasing levels of public scrutiny, an increased marketplace emphasis on quality assurance and the growing popularity of evidence-based practice models. We have moved into an information age, and it is clear that keeping up with the discipline requires regular engagement with a variety of materials. Professional development based upon these motivations should ultimately benefit the patients under the care of chiropractic practitioners.

Because the dominant model of chiropractic continuing education has been centered upon verification of attendance rather than demonstrable change in knowledge, skills or attitudes that will improve patient care or enhance professional competencies, chiropractors may find transition to a new model challenging.

Suggested approaches to this type of professional development include portfolio-based and experiential models. Whereas traditional lecture-based formats have the teacher as the deliverer of content, in these formats the teacher functions as a facilitator. A major challenge for regulatory bodies that wish to implement these models relates to adequate assessment and documentation – regulatory boards must certify to the public that practitioners are maintaining an appropriate level of training and are keeping up with new developments in their field to ensure quality care. So, while a shift from documenting attendance to tracking learning goals in a portfolio makes sense for adult learners, it creates difficulties for those who must evaluate the work done by practitioners to stay current or acquire new knowledge or skills.

It is difficult to come up with valid and reliable criteria upon which someone's learning plan or portfolio will be judged. Further, such a protocol would require training evaluators.

There is also a shift in the location of continuing educational programs. With the proposed moves to adult learning models, the practitioner not only develops a set of learning goals and a plan for achieving them, but also takes responsibility for creating learning opportunities and experiences – often in the setting of his/her own practice. Again, verification that work is actually being done becomes a question for regulatory bodies. This question also arises when more traditional continuing education programs are delivered via distance education.

Such programs must have internal checks to verify that the person completing the work on-line is the licensee seeking credit. Some states have been quicker than others to move toward acceptance of distance education programs for relicensure. Continuing education delivered in this format presents a couple of very obvious advantages to the practitioner – it can be completed at the doctor’s convenience without requiring travel.



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## 12 Patient Privacy - Added

### RECOMMENDATION - Added

**Respecting patients' right of privacy has always been both an ethical and a legal duty. New federal regulations place specific, enforceable obligations on most chiropractors and their employees. Knowledge of and compliance with these regulations is essential in order to remain in practice.**

Rating: Established

Evidence: E, L

### Commentary - Added

Chiropractors have always had an ethical obligation to safeguard confidential information that they obtain from and about their patients. Some states have adopted laws codifying this duty, and most states recognize a private cause of action in tort for invasion of privacy.

It is not always clear, however, where the outer boundaries of this obligation are located. May a chiropractor discuss a person's condition with his or her parent or spouse? Such a question might have been answered in the past on the basis of the doctor's view of the patient's best interest. In the twenty-first century, however, the answer must be informed by a myriad of federal and state statutes, regulations and court decisions. Violations of these laws may result in lawsuits, revocation or suspension of licenses, and/or debarment from Medicare.

One manner in which chiropractors can limit their exposure to liability, while meeting their patients expectations at the same time, is by posting a Notice of Privacy Practices in his or her office and by handing a copy to every new patient (and by repeating this process every time a change is made in the text of the Notice). This is required of those doctors who are covered by the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and is a sound legal practice for every healthcare professional to state his policy in advance and then adhere to it.

It is also mandated by HIPAA, and important for all chiropractors, to have patients (or the parents or guardians of minor patients) sign an "Authorization for Use or Disclosure of Information for Purposes Requested by Chiropractor" and a "Consent for Purposes of Treatment, Payment & Healthcare Operations" before collecting, utilizing, transmitting or disclosing any "protected health information" as that phrase is defined by law.

Finally, it is mandated by HIPAA to have a "Business Associate Agreement" signed by all those vendors and others who might have access to protected health information.<sup>(1-10)</sup>

The foregoing are to be regarded as minimum clinical practice guidelines and not as a comprehensive legal analysis of the law of privacy nor as a substitute for the opinion of an attorney licensed in the state in which the chiropractor conducts his or her practice.

**Sub-recommendation – Added**

**Open/Community Adjusting Areas**

**It is acceptable for chiropractic care to be provided in a setting where more than one patient receives care in the same room. In such a case, the patients involved must consent to this arrangement. The chiropractor should have procedures where a patient who wishes to be examined or adjusted privately may do so.**

Evidence: E

**Sub-Recommendation - Added**

**Patient Testimonials**

**A chiropractor must obtain written consent before disseminating any testimonial or case report where a specific patient may be identified. In all cases, use of testimonials must be in compliance with applicable state and federal laws, rules, and regulations.**

Evidence: E

## Additional References

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### **Table 1. Methodological Standards for Practice Guidelines**

Adapted From: Shaneyfelt, T.M., Mayo-Smith, M.F., Rothwangl, J. Are Guidelines Following Guidelines? The Methodological Quality of Clinical Practice Guidelines in the Peer-Reviewed Medical Literature. JAMA, May 26, 1999 – Vol 281, No. 20. With the Permission of the *Journal of the American Medical Association*

#### Frequency of Adherence to Methodological Standards on Guideline Development and Format

1. Purpose of the guideline is specified
2. Rationale and importance of the guideline are explained
3. The participants in the guideline development process and their areas of expertise are specified.
4. Targeted health problem or technology is clearly defined
5. Targeted patient population is specified
6. Intended audience or users of the guideline are specified
7. The principal preventive, diagnostic, or therapeutic options available to clinicians and patients are specified
8. The health outcomes are specified
9. The method by which the guideline underwent external review is specified
10. An expiration date or date of scheduled review is specified.

#### Frequency of Adherence to Methodological Standards on Evidence Identification and Summary

11. Method of identifying scientific evidence is specified
12. Time period from which evidence is reviewed is specified.
13. The evidence used is identified by citation and referenced
14. Method of data extraction is specified
15. Method for grading or classifying the scientific evidence is specified
16. Formal methods of combining evidence or expert opinion are used and described.
17. Benefits and harms of specific health practices are specified
18. Benefits and harms are quantified
19. The effect on health care costs from specific health practices is specified
20. Costs are quantified

#### Frequency of Adherence to Methodological Standards on the Formulation of Recommendations

21. The role of value judgments used by the guideline developers in making recommendations is discussed
22. The role of patient preferences is discussed
23. Recommendations are specific and apply to the stated goals of the guideline
24. Recommendations are graded according to the strength of the evidence
25. Flexibility in the recommendations is specified

**Table 2**

**Peer Reviewers were chosen based on several characteristics including but not limited to:**

- Technique expertise
- Involvement in Regulatory Board Activity
- Experience in research or publication
- Experience in chiropractic education
- Knowledge of chiropractic education accreditation standards
- Hold advanced post graduate degrees in chiropractic sciences and/or other specialties within chiropractic
- Practice experience
- International practice
- Specialty practice i.e. pediatrics
- Political Experience
- Legal expertise
- Experience in Guideline Development Methodology
- Vendors with an interest in chiropractic guidelines
- Patients
- Government experts

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Dr. Kent is currently the World Chiropractic Alliance representative to the United Nations Department of Public Information and Chairs the United Nations NGO Health Committee. Named Chiropractic Researcher of the Year in 1994 by the World Chiropractic Alliance, and in 1991 by the International Chiropractors Association, Dr. Kent was one of only 16 chiropractors worldwide selected as a participant of the 1975 NINCDS workshop sponsored by the National Institutes of Health. He was a principal investigator in the Palmer College research department, where he served as assistant professor of diagnosis and x-ray. He has presented papers at scientific symposia including the PCCR CORE Conference, the Reviews of the Literature Conference, and the ICA Scientific Symposium on Spinal Biomechanics.

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After his graduation from Logan College of Chiropractic in 1974, Dr. Rondberg built successful private practices in St. Louis and Phoenix. He was noted for his emphasis on public and patient education and became a staunch advocate of subluxation-based chiropractic. In 1986, Dr. Rondberg founded *The Chiropractic Journal*, which won widespread respect and popularity and is currently read by more than 60,000 doctors and students worldwide. It provides news and political coverage, educational articles, and human interest features. In 1989, he founded the World Chiropractic Alliance, a non-profit advocacy organization dedicated to promoting a vertebral subluxation free world. The group has been active in political lobbying, public education, and intra-professional communication. In his role as president of the WCA, an NGO (Non-Governmental Organization) affiliated with the United Nations Department of Public Information, Dr. Rondberg works closely with health care officials and organizations around the globe, including the World Health Organization.

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A graduate of Palmer College of Chiropractic, Dr. Gutierrez has long been active in managed health care issues with the United Chiropractors of Washington. A past member of the Washington State Board of Chiropractic Examiners, she also chairs the Health Care Reform Committee for the World Chiropractic Alliance and is a contributing editor for *The Chiropractic Journal*. In addition, she chaired the Managed Health Care Committee and served on the Standards of Care committee for the Washington State Chiropractic Association.

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Dr. Holder is the first American to receive the Albert Schweitzer Prize in Medicine from the Albert Schweitzer-Gesellschaft, Austria. 1992 Chiropractor of the Year by The Florida Chiropractic Association, and Florida Chiropractic Society Researcher of the Year in 1995. Dr. Holder is Adjunct Professor, St. Martin's College, Milwaukee; held appointment to the faculty at the University of Miami, Center for Addiction Studies and Education, and held appointment as post graduate faculty at numerous chiropractic colleges including National College, Life College, Life West and Parker College. He is the developer of Torque Release Technique®, discoverer and developer of the Foundation Point System and Addiction Axis Line in Auriculotherapy, President/Co-Founder of the American College of Addictionology and Compulsive Disorders, which trains and board certifies professionals in the field of addiction worldwide and is Director/Founder of Exodus Treatment Center, a 350 bed addiction facility located in Miami, Florida, Director/Founder of Exodus Israel Addiction and Research Center, Jerusalem, Israel.

**David Koch, D.C.**  
**Vice President for International Affairs**  
**Palmer College of Chiropractic**  
**Davenport, Iowa**

Dr. Koch is a member of the administration and faculty of Palmer College of Chiropractic. He assists Palmer College and Palmer West President Guy F. Riekeman, D.C., and teaches in the philosophy and post-graduate areas. Dr. Koch is the former president of Sherman College of Straight Chiropractic. Dr. Koch has been involved in chiropractic nearly his entire life. A long-time chiropractic patient, he became a chiropractic student at Sherman College of Straight Chiropractic in 1977, a chiropractor and chiropractic professor in 1981, and president of Sherman College in 1997. As a professor, he has lectured on spinal anatomy, spinal biomechanics/dynamics, X-ray/radiographic physics and radiographic anatomy. He has also lectured and written extensively on the philosophy of chiropractic, and has been published in the *Journal of Straight Chiropractic*, the *Journal of Chiropractic Humanities* and the *Journal of Vertebral Subluxation Research*.

**Michael McGee, M.Ed**  
**CCP Consumer Member**  
**Lock Haven University**

Michael “Max” McGee has a B.S. in Education from Lock Haven University and an M.Ed in Student Personnel Services from The Pennsylvania State University. He currently is an administrator in the Student Life Department of Lock Haven University, a consumer advocate for chiropractic care and president of The Center for Pennsylvania Chiropractic Justice. He also serves as a consumer advocate and patient representative on the board for the CCP guidelines and will be the new president for the National Center for Chiropractic Justice. As a patient of chiropractic he has also been active in legislative areas dealing with defining a universal, statutory definition of medical necessity for chiropractic as well as fair insurance medical review practices in chiropractic care.

**Edward F. Owens, Jr. M.S., D.C.**  
**Director of Research, Sherman College of Straight Chiropractic**  
**Editorial Board – Journal of Vertebral Subluxation Research**

Dr. Ed Owens has been with Sherman College as Research Director since Fall of 1998. He has a long history in chiropractic research, having served on the research faculty at Life University, where he received his DC degree, and as past Editor of the *Chiropractic Research Journal*. Dr. Owens has a background in biomechanics with an MS in Engineering Science and Mechanics from Georgia Tech. He has produced more than 60 papers, either for publication or presentation.

**Stephen F. Renner, D.C., D.A.C.S.**  
**Member American Board of Forensic Examiners**  
**Private Practice**  
**Spokane, Washington**

A 1976 graduate of Palmer College of Chiropractic, Dr. Renner is certified in surface EMG and videofluoroscopy. His post-graduate training includes the Council on Applied Chiropractic Science Diplomate program, as well as study in applied spinal biomechanical engineering. A member of the American Board of Forensic Examiners and the American Academy of Pain Management, Renner has presented seminars for the Washington Defense Trial Lawyers and the Montana State Trial Lawyers Association Convention.

**William Sloane, J.D., LL.M, Ph.D.**  
**Academic Dean, Capital University of Integrative Medicine**  
**Fellow, American College of Wellness**

An attorney and an Anglican priest, Dr. Sloane is the academic dean at Capital University of Integrative Medicine. He serves as chair of the Academy for Research in the Chiropractic Sciences, of the American College of Counselors, and of the World Chiropractic Alliance's Council on International Chiropractic Law; pastoral counseling chair of the American Association of Integrative Medicine; and past chair of the American Board of Forensic Counselors. He was legal co-counsel to the 1992 Wyndham Conference. He is a lieutenant colonel and legal officer in the U.S. Air Force Auxiliary (Civil Air Patrol) and has served as legal counsel to the General Assembly of Pennsylvania since 1976. Dr. Sloane has taught at Elizabethtown College, Millersville University, Saint Francis College of Loretto, Shippensburg University, Temple University, Widener University, and Wilson College. He is a certified medical examiner I and life fellow of the American College of Forensic Examiners, a certified wellness director and fellow of the American College of Wellness, and a life certified diplomate of the American Psychotherapy Association. He has been designated an applied psychoanalysis practitioner by the Society of Modern Psychoanalysts and serves as canon theologian and chancellor to the Southern Episcopal Church of the U.S.A.

## **Guidelines Committee**

### **Chairman**

**Matthew McCoy, D.C., D.A.C.S. (Cand.)**  
**Vice President, Council on Chiropractic Practice**  
**CCP Project Manager for Guidelines Revision**  
**Director of Research, Life University**  
**Marietta, Georgia**

Dr. McCoy is presently the Director of Research at Life University College of Chiropractic with additional responsibilities including instruction in clinical and chiropractic sciences. Prior to this he was in private practice in Kirkland, Washington and was the past owner and Clinical Director for four chiropractic centers in South Florida. Dr. McCoy is a consultant for Vostok 1 and The Regional Center for Chiropractic "Spine" involved in developing a chiropractic spine treatment, teaching & research center in Vladivostok, Russia. Dr. McCoy is the World Chiropractic Alliance Liason to the Institute of Medicine's Committee on Complimentary and Alternative Medicine and is a member of the Post Graduate Faculty of Life University School of Chiropractic. Dr. McCoy is presently Editor of the *Journal of Vertebral Subluxation Research*.

**Christopher Kent, D.C., F.C.C.I.**  
**President, Council on Chiropractic Practice**  
**Post-graduate Faculty**  
**Life University, Marietta, Georgia**  
**Ramsey, New Jersey**

Dr. Kent is currently the World Chiropractic Alliance representative to the United Nations Department of Public Information and Chairs the United Nations NGO Health Committee. Named Chiropractic Researcher of the Year in 1994 by the World Chiropractic Alliance, and in 1991 by the International Chiropractors Association, Dr. Kent was one of only 16 chiropractors worldwide selected as a participant of the 1975 NINCDS workshop sponsored by the National Institutes of Health. He was a principal investigator in the Palmer College research department, where he served as assistant professor of diagnosis and x-ray. He has presented papers at scientific symposia including the PCCR CORE Conference, the Reviews of the Literature Conference, and the ICA Scientific Symposium on Spinal Biomechanics.

**Patrick Gentempo Jr., D.C.**  
**Board Member Council on Chiropractic Practice**  
**CEO – Chiropractic Leadership Alliance**  
**Paterson, NJ**

Dr. Patrick Gentempo, Jr., is the co-founder and the CEO of the Chiropractic Leadership Alliance. He is an internationally renowned lecturer, researcher, and chiropractic business consultant. Integrating the philosophy, science, clinical practice and business of chiropractic without contradiction, Dr. Gentempo has spread his vision of world leadership of healthcare in a chiropractic model over the past 17 years. His work has been published in *International Review of Chiropractic*, *Chiropractic Research Journal*, *The Chiropractic Journal*, *Today's Chiropractic*, *The Journal of Chiropractic Research and Clinical Investigation*, *The Journal of Vertebral Subluxation Research* and numerous other professional publications.

**Jerry Hardee, Ph.D**  
**President, Sherman College of Straight Chiropractic**  
**Spartanburg, South Carolina**

Dr. Hardee is currently the President of Sherman College of Straight Chiropractic and is also a professor in the areas of business management and research methods. He has been with the school since 2001. He has a B.S. from Clark College (1960), an M.A. from Fisk University (1964), a C.A.S. (Certificate of Advanced Study) (1974) and an Ed.D. from Northern Illinois University (1975). His hobbies include golf, reading, computers and outdoor activities.

**David Koch, D.C.**  
**Vice President for International Affairs**  
**Palmer College of Chiropractic**  
**Davenport, Iowa**

Dr. Koch is a member of the administration and faculty of Palmer College of Chiropractic. He assists Palmer College and Palmer West President Guy F. Riekeman, D.C., and teaches in the philosophy and post-graduate areas. Dr. Koch is the former president of Sherman College of Straight Chiropractic. Dr. Koch has been involved in chiropractic nearly his entire life. A long-time chiropractic patient, he became a chiropractic student at Sherman College of Straight Chiropractic in 1977, a chiropractor and chiropractic professor in 1981, and president of Sherman College in 1997. As a professor, he has lectured on spinal anatomy, spinal biomechanics/dynamics, X-ray/radiographic physics and radiographic anatomy. He has also lectured and written extensively on the philosophy of chiropractic, and has been published in the *Journal of Straight Chiropractic*, the *Journal of Chiropractic Humanities* and the *Journal of Vertebral Subluxation Research*.

**Michael McGee, M.Ed**  
**CCP Consumer Member**  
**Lock Haven University**

Michael “Max” McGee has a B.S. in Education from Lock Haven University and an M.Ed in Student Personnel Services from The Pennsylvania State University. He currently is an administrator in the Student Life Department of Lock Haven University, a consumer advocate for chiropractic care and president of The Center for Pennsylvania Chiropractic Justice. He also serves as a consumer advocate and patient representative on the board for the CCP guidelines and will be the new president for the National Center for Chiropractic Justice. As a patient of chiropractic he has also been active in legislative areas dealing with defining a universal, statutory definition of medical necessity for chiropractic as well as fair insurance medical review practices in chiropractic care.

**Jeannie Ohm, D.C., F.I.C.P.A.**  
**Secretary, International Chiropractic Pediatric Association**  
**Private Practitioner**

A 1981 Graduate of the Pennsylvania College of Chiropractic and a 1995 Fellow of the International Chiropractic Pediatric Association and Life College, Dr. Ohm has been the Secretary of the Board of the I.C.P.A. and Editor of its newsletter since 1997. She now holds the position of Executive Coordinator as well. Dr. Ohm is an international lecturer on the topic "Chiropractic Care for All Children" to both the public and to practicing Chiropractors and is a post graduate faculty member for numerous colleges. She is an Instructor for the I.C.P.A's Certification Program, "Chiropractic Care in Pregnancy and Infancy" and Founder of the I.C.P.A's Proficiency Workshop on the Webster Technique. The author of numerous papers on pregnancy, children and chiropractic she is also the Founder of Makin' Miracles... Connecting Kids 'n Chiropractic, community educational programs for the D.C. concerned about children. Dr. Ohm is the producer of the educational video, “Birth Trauma: A Modern Epidemic and the producer and writer of the children's chiropractic song, "Power On!" She has practiced in Pennsylvania with her husband since 1981 focusing on family wellness.

**Keith G. Rau, DC, CCEP**  
**Associate Professor, Life University, Marietta, Georgia**  
**Team Chiropractor - Kennesaw State University, Kennesaw, Georgia**  
**Team Chiropractor - Georgia Force of the Arena Football league**

Dr. Rau is a graduate of Life Chiropractic College and currently a member of the Sport Health Science faculty at Life University and also teaches in the College of Chiropractic. He is the former head of the Sports Chiropractic Department with responsibility for the care of Life's athletic teams. He is the team chiropractor for Kennesaw State University and the Georgia Force of the Arena Football League. He has taught extremity adjusting and the integration of chiropractic into the care of athletes to chiropractors, athletic trainers and coaches.



**Stephen F. Renner, D.C., D.A.C.S.**  
**Member, American Board of Forensic Examiners**  
**Private Practice**  
**Spokane, Washington**

A 1976 graduate of Palmer College of Chiropractic, Dr. Renner is certified in surface EMG and videofluoroscopy. His post-graduate training includes the Council on Applied Chiropractic Science Diplomate program, as well as study in applied spinal biomechanical engineering. A member of the American Board of Forensic Examiners and A Diplomate of the American Academy of Pain Management, Dr. Renner has presented seminars for the Washington Defense Trial Lawyers and the Montana State Trial Lawyers Association Convention.

**William Martin Sloane, J.D., LL.M. (Labor), Ph.D.**  
**Attorney, Counselor, Priest and Professor**  
**Carlisle, Pennsylvania**

Dr. Sloane is the academic dean at Capital University of Integrative Medicine and an adjunct faculty member at Elizabethtown College, Temple University, and Widener University School of Law. He chairs the Academy for Research in the Chiropractic Sciences, the American College of Counselors, and the World Chiropractic Alliance's Council on International Chiropractic Law and is pastoral counseling chair of the American Association of Integrative Medicine, chaplains' chair of the American Board for Certification in Homeland Security, and a board member of the American College of Wellness. Dr. Sloane serves as the scientific secretary general of the Bulgarian Foundation for Sports Sciences, the academic advisor to the International Council of Integrative Medicine, and a member of the editorial board of the *Journal of Vertebral Subluxation Research*. A lieutenant colonel in the U.S. Air Force Auxiliary (Civil Air Patrol), he has been legal counsel to the Pennsylvania House of Representatives since 1976. Dr. Sloane is a certified medical examiner I and life fellow of the American College of Forensic Examiners International and a life certified diplomate of the American Psychotherapy Association. He has been designated an applied psychoanalysis practitioner by the Society of Modern Psychoanalysts and serves as canon theologian and chancellor of the Southern Episcopal Church of the U.S.A.

**Adrian Wenban, B.Sc., B.App.Sc., M.Med.Sc**  
**Private Practitioner**  
**Barcelona, Spain**

Dr. Adrian Wenban graduated from the university of New South Wales with a bachelor of science degree, major in anatomy, in 1987. In 1990 he graduated from the Phillip Institute of Technology (now RMIT) with a bachelor of applied science, major in chiropractic, and subsequently (1990-91) presented as a postgraduate lecturer in chiropractic pediatrics for Phillip Institute of Technology. In 1999 he graduated from the University of Newcastle with a Masters in Medical Science (Clinical Epidemiology). In his 10 years as a chiropractor Dr. Wenban has worked in over 60 different practices spread over 5 different countries. He has served as an Associate Governor of the Australian Spinal Research Foundation for 8 years and continues to provide that organization with a bi-annual critical appraisal and review of recently published literature. Dr. Wenban presently lives and practices in Barcelona, Spain. He is a member of the Spanish Chiropractic Association (AEQ) and is the president of that associations Education Committee. His interests include the philosophy of science and critical appraisal of the peer reviewed literature.

**Jay Holder, D.C., C.Ad., DACACD**  
**President, American College of Addictionology and Compulsive Disorders**  
**Private Practice**  
**Miami Beach, Florida**

Dr. Holder is the first American to receive the Albert Schweitzer Prize in Medicine from the Albert Schweitzer-Gesellschaft, Austria. 1992 Chiropractor of the Year by The Florida Chiropractic Association, and Florida Chiropractic Society Researcher of the Year in 1995. Dr. Holder is Adjunct Professor, St. Martin's College, Milwaukee; held appointment to the faculty at the University of Miami, Center for Addiction Studies and Education, and held appointment as post graduate faculty at numerous chiropractic colleges including National College, Life College, Life West and Parker College. He is the developer of Torque Release Technique®, discoverer and developer of the Foundation Point System and Addiction Axis Line in Auriculotherapy, President/Co-Founder of the American College of Addictionology and Compulsive Disorders, which trains and board certifies professionals in the field of addiction worldwide and is Director/Founder of Exodus Treatment Center, a 350 bed addiction facility located in Miami, Florida, Director/Founder of Exodus Israel Addiction and Research Center, Jerusalem, Israel.

**Dean L. Smith, D.C., M.Sc.**  
**Miami University, Ohio**  
**Private Practitioner**

Dr. Smith is a 1997 graduate of the National College of Chiropractic and is currently working towards a Ph.D. in the Department of Psychology at Miami University (Ohio). He has a part-time private practice in Oxford, Ohio and is chiropractor and ergonomic consultant to Pinnacle Computer Corporation in Cincinnati. His practice is based on the correction of subluxation for all ages and empowering the public with an awareness of the principles of human potential. His research interests involve the effects of vertebra subluxation on postural dynamics and muscular strength. In particular, Dean is interested in how subluxation influences the interaction of perception and action in maintaining control of posture. This research has theoretical implications for understanding the constraints that subluxation places on one's behavior. Dr. Smith regularly teaches about enhancement of athletic performance and chiropractic.

**Steven C. Eisen, D.C.**  
**Private Practitioner**  
**Philadelphia Pennsylvania**

Dr. Steven C. Eisen has been in chiropractic practice in Philadelphia for 20 years. He founded the Pennsylvania Chiropractic Association Peer Review Committee and is the author of "A Guide to Peer Review in Pennsylvania." In addition to having been honored with numerous awards from the Pennsylvania Chiropractic Association (PCA) and serving on the PCA Board as the Philadelphia district director, Dr. Eisen serves on the World Chiropractic Alliance International Board of Governors and the Council on Chiropractic Practice guidelines committee and advisory board. Dr. Eisen's chiropractic expertise has been acknowledged by a number of state and national chiropractic associations, as well as the Commonwealth of Pennsylvania for whom he officially serves as a chiropractic expert.

**Michael J. Dunigan, D.C.**  
**Private Practitioner**  
**Shamokin Dam, Pennsylvania**

Dr. Michael J. Dunigan is a 1992 graduate of Pennsylvania College of Chiropractic. He was a founding member of the Pennsylvania Chiropractic Association Peer Review Committee. In addition, Dr. Dunigan has been honored with a distinguished service award from the Pennsylvania Chiropractic Association (PCA). He has also served on the PCA Board as a District Director, Bylaws Chairman and the Chairman of the Legal Fund Raising Committee. Dr. Dunigan serves on the World Chiropractic Alliance International Board of Governors and the Council on Chiropractic Practice guidelines committee and advisory board.

**Gregory Plaugher, D.C.**  
**Director of Research - Life Chiropractic College West**

Since April of 2000, Dr. Plaugher has served as the Director of Research for Life Chiropractic College West and is an Associate Professor there, teaching in the areas of pediatrics, geriatrics, and research methods. He also the Director of Research for the not-for-profit Gonstead Clinical Studies Society, an appointment he has held since 1989. Dr. Plaugher is also a member of the Paediatric Faculty for the College of Chiropractors (United Kingdom). His research interests include physiological and patient-centered outcomes following chiropractic care in prospective case series and randomized clinical trials. This research is published in scientific journals such as the JMPT and Chiropractic Technique. Dr. Plaugher is the editor of Textbook of Clinical Chiropractic: A Specific Biomechanical Approach, and co-editor of Pediatric Chiropractic, both published by Lippincott, Williams & Wilkins.

**Peter Scire, D.C. (Cand), DACNB (Cand), BS**  
**CCP Student Representative**  
**Founder and CEO - The Horizon Institute**  
**Atlanta, GA**

Peter Scire is a Senior Clinician at Life University College of Chiropractic, where he is the President and Founder of the Research Society Club, guest lecturer at the Neurology and CBP clubs. He has extensive post-graduate training in the fields of brain-based learning, cognitive and behavioral neuroscience, functional neurology, nonlinear dynamics, chaos theory, neuroimmunology, psychoneuroimmunology, spinal biomechanics, and spinal trauma. Mr. Scire is a Research Assistant for the *Journal of Vertebral Subluxation Research* and he is a member of the Society of Chaos Theory in Psychology and Life Sciences.

**Ismay Campbell, BS, DC**  
**Assistant to the Project Manager for Guidelines Revision**

Dr. Campbell is a native of the Republic of Suriname located on the northeast coast of South America. She has a long history of service to the chiropractic profession working for nearly a decade as a chiropractic paraprofessional prior to entering chiropractic college. Dr. Campbell is a graduate of Life University College of Chiropractic and also holds a Bachelor's in nutrition. She is actively pursuing the development of chiropractic in her home country and in addition, Dr. Campbell consults with chiropractors in the areas of practice management and patient care.

**John Downes, D.C.**  
**Dean – Life University College of Chiropractic**  
**Private Practice**  
**Marietta, Georgia**

Dr. Downes is currently the Dean of the College of Chiropractic at Life University in Marietta, Georgia. Active in the area of chiropractic and athletics, Dr. Downes has also served as the Director of Sports Chiropractic at Life University since 1998. He has served as an Olympic Team Chiropractor (Costa Rica 1996 / 2000) and team chiropractor for the Central American and National Games (Costa Rica 1997-2001), the Pan American Games (Guatemala 1998) and the Georgia Force Arena Football in Atlanta, GA. Dr. Downes is a Fellow of the International Chiropractors Association and is a Board member of The United States Sports Chiropractic Federation and the Council on Extremity Adjusting. He is a member of the Georgia Council of Chiropractic, the Federation of International Sports Chiropractic and the International Alliance of Healthcare Educators. Dr. Downes serves on the Editorial Review Board of the *Journal of Bodywork and Movement Therapies* and *Today's Chiropractic*.

**Joel Miller, D.C., F.I.C.P.A.**  
**Chiropractic Pediatrics**  
**Private Practitioner**

Dr. Joel Miller is a 1983 cum laude graduate from Life University and was awarded the Clinical Excellence award for his outstanding achievements during his internship there. He has been in private practice in Michigan, Georgia and for the past 18 years, Florida. He was the lead professor in Pediatric Adjusting and Associate Professor in Pediatric Clinical Assessment at Life University from 1998 – 2000. He is a Fellow of the International Chiropractic Pediatric Association and is co-author and lead instructor of a 120 hour pediatric certification course where he served as the Director of Pediatric Clinical Education. Dr. Miller is a member of the International Chiropractors' Association, and the ICA's council on Fitness and Sports Health Science. He is a Diplomat of the National Board of Chiropractic Examiners and a founding member of the ICA's Council on Pediatrics. He was the recipient of the Outstanding Chiropediatric Leadership award in March 2002. Dr. Miller has served as the chiropractor for many teams in SW Florida including "Pop" Warner, High School, College, the Minnesota Twins and Boston Red Sox. He is a black belt instructor and coached the Jr. Olympic Tae Kwon Do National Championships. He is certified through the ISSA as a Youth Fitness Trainer and a Specialist in Martial Arts Conditioning and has received Black Belt certification through Kukkiwon in Seoul, Korea. Dr. Miller has authored numerous papers published in popular chiropractic literature and is an international lecturer on Chiropractic Pediatrics and youth sports. Dr. Miller serves on several college's post-graduate faculty.

**Robin G Taylor D.C.**  
**Private Practice, Auckland New Zealand**  
**Past President New Zealand Chiropractors Association**  
**Past President New Zealand College of Chiropractic**

A private practitioner in Auckland, New Zealand, Dr. Taylor is a 1974 graduate of Palmer College of Chiropractic. He was a faculty member and Head of Radiology at Sherman College of Chiropractic 1978/79. He was President of the New Zealand Chiropractors Association from 1993 to 1999 and served as President of the New Zealand College of Chiropractic from October 1999 to August 2002. He has served on the Australasian Council on Chiropractic Education and the Joint Education Committee Panel for the reaccreditation of the RMIT Chiropractic program. In addition, he represented the Chiropractic profession on the New Zealand Acute Low Back Pain Guideline program 1994/95. Dr Taylor has an intense dedication to the Subluxation Based Model of Chiropractic.

**Mr. Jesse Green**  
**General Counsel - Parker College of Chiropractic**

## **The Research Committee:**

Dr. Robert Blanks, Chair  
Dr. Matthew McCoy, Vice Chair  
Dr. Madeline Behrendt, Chair – WCA Council on Women's Health/Private Practitioner  
Dr. Christina Cunliffe, Principle – McTimoney College of Chiropractic  
Dr. Donald Epstein – Network Spinal Analysis  
Dr. Mark Filippi – Director, WCA Collaborative Education, Private Practitioner  
Dr. Jay M. Holder – Torque Release Technique, Private Practitioner  
Dr. Rob Jackson – Private Practitioner  
Dr. Christopher Kent – CCP President  
Dr. Ted Morter – BEST Technique  
Dr. Yannick Pauli – International Representative, Private Practitioner  
Dr. Robin Taylor – Past President, New Zealand College of Chiropractic  
Peter Scire – Student Representative

## **The Certification Committee:**

Dr. Veronica Gutierrez – White House Commission on Complementary and Alternative  
Medicine/Private Practitioner  
Dr. Jay M. Holder – Private Practitioner/Torque Release Technique  
Dr. William Sloane – Attorney

## Technique Panel

Dr. Robert Clyde Affolter  
Post-graduate Faculty  
Sherman College of Straight Chiropractic

Dr. Ron Aragona  
Applied Spinal Biomechanical Engineering

Dr. David Bellin  
Thompson Technique

Dr. Fred H. Barge  
Barge Method

Dr. Charles Blum  
SOTO, USA

Dr. Sue Brown  
Bio-Geometric Integration

Dr. Christopher Colloca

Dr. Christina Cunliffe  
McTimoney Technique

Dr. Ralph Davis  
Upper Cervical Technique

Dr. Leander Eckard  
Leander Technique

Dr. Donald Epstein  
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Dr. Kirk Eriksen  
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Dr. Patrick Foran  
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Pierce Technique

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Dr. Christopher John  
Directional Non-Force Technique

Dr. Jesse Jutkowitz  
Advanced Biostructural Correction

Dr. Renee Kale  
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Dr. Wallace King  
King Concept Technique

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Dr. Howard Lewis  
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Dr. Victor Frank  
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Dr. Roy Sweat  
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Dr. Matthew McCoy  
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Dr. Jeannie Ohm  
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Dr. Lowell Ward  
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