Clinical Policy Bulletin: Chiropractic Services

Number: 0107

Policy

Note: Some plans have limitations or exclusions applicable to chiropractic care. Please check benefit plan descriptions for details.

I. Aetna considers chiropractic services medically necessary when all of the following criteria are met:

A. The member has a neuromusculoskeletal disorder; and
B. The medical necessity for treatment is clearly documented; and
C. Improvement is documented within the initial 2 weeks of chiropractic care.

If no improvement is documented within the initial 2 weeks, additional chiropractic treatment is considered not medically necessary unless the chiropractic treatment is modified.

If no improvement is documented within 30 days despite modification of chiropractic treatment, continued chiropractic treatment is considered not medically necessary.

Once the maximum therapeutic benefit has been achieved, continuing chiropractic care is considered not medically necessary.

Chiropractic manipulation in asymptomatic persons or in persons without an identifiable clinical condition is considered not medically necessary.

Chiropractic care in persons, whose condition is neither regressing nor improving, is considered not medically necessary.

Manipulation is considered experimental and investigational when it is rendered for non-neuromusculoskeletal conditions such as dysmenorrhea, attention-deficit hyperactivity disorder and epilepsy (not an all inclusive list) because its effectiveness for these indications is unproven.
Manipulation of infants is considered experimental and investigational for non-neuromusculoskeletal indications.

Chiropractic manipulation has no proven value for treatment of idiopathic scoliosis or for treatment of scoliosis beyond early adolescence, unless the member is exhibiting pain or spasm, or some other medically necessary indications for chiropractic manipulation is present.

II. Aetna considers the following chiropractic procedures experimental and investigational:

A. Active Release Technique (see CPB 388 - Complementary and Alternative Medicine)
B. Applied Spinal Biomechanical Engineering
C. Atlas Orthogonal Technique
D. BioEnergetic Synchronization Technique
E. Biogeometric Integration
F. Blair Technique
G. Chiropractic Biophysics Technique
H. Coccygeal Meningeal Stress Fixation Technique
I. Cranial Manipulation
J. Directional Non-force Technique
K. Manipulation for Internal (non-neuromusculoskeletal) Disorders (Applied Kinesiology)
L. Manipulation Under Anesthesia (see CPB 204 - Manipulation Under Anesthesia)
M. Moire Contourographic Analysis
N. Network Technique
O. Neural Organizational Technique
P. Neuro Emotional Technique
Q. Sacro-Occiptal Technique
R. Spinal Adjusting Devices (ProAdjuster, PulStarFRAS, Activator)
S. Upledger Technique and Craniosacral Therapy
T. Whitcomb Technique (see CPB 388 - Complementary and Alternative Medicine).

III. Aetna considers the following diagnostic procedures experimental and investigational:

A. Neurocalometer/Nervoscope - see CPB 029 - Thermography
B. Paraspinal Electromyography (EMG)/Surface Scanning EMG - see CPB 112 - Surface Scanning and Macro Electromyography
C. Spinoscopy - see CPB 112 - Surface Scanning and Macro Electromyography
D. Thermography - see CPB 029 - Thermography.

Background
Chiropractic is a branch of the healing arts that is concerned with human health and prevention of disease, and the relationship between the neuroskeletal and musculoskeletal structures and functions of the body. The primary focus of chiropractic is the relationship of the spinal column and the nervous system, as it relates to the restoration and maintenance of health. A practitioner of chiropractic is referred to as Doctor of Chiropractic (D.C.), Chiropractic Physician or Chiropractor.

The primary focus of the profession is the vertebral column; however, all other peripheral articular structures and adjacent tissues may be treated, depending on state chiropractic scope of practice laws.

Neuromusculoskeletal conditions commonly treated by chiropractic physicians include:

- Contractures
- Degenerative conditions of the joints
- Fibrositis
- Headaches (including tension headaches, migraines, and vertebrogenic-type headaches)
- Myalgia
- Myofibrositis
- Neuralgias
- Noninfectious inflammatory disorders of the joints, muscles, and ligaments of the spine and extremities
- Osteoarthritis - Intervertebral disc disorders of the spine such as disc protrusion, bulging, degeneration, and displacement
- Peripheral joint trauma
- Radiculopathies
- Repetitive motion injuries
- Spinal facet syndromes
- Spondylolisthesis
- Spondylitis
- Sprains and strains

The chiropractor may treat multiple neuromusculoskeletal conditions during a single visit.

Chiropractors use broadly accepted diagnostic procedures to assess diseases and adverse health conditions.

The primary mode of chiropractic treatment is manipulation or adjustment. Chiropractic manipulation is the application of a controlled force to re-establish normal articular function. The objective of manipulation is to restore the normal mobility and range of motion within the joint.

The chiropractor affects the body's physiology and promotes healing by locating and correcting mechanical disorders of joints or joint subluxations. In chiropractic, the term "subluxation" is used interchangeably with the term "spinal subluxation complex" or "vertebral subluxation complex". A subluxation may also be called a joint dysfunction, joint fixation, functional joint lesion, somatic dysfunction, or
biomechanical dysfunction. A subluxation has been defined as a fixation, lack of motion, or aberrant motion of an articular joint, resulting in physiological changes within the joint that may cause inflammation of the joint and its capsule, which may result in pain, swelling, muscle spasm, nerve irritation, damage to joint cartilage, and loss of normal range of motion. Nerve irritation may cause pain and spasm to radiate. Vascular, sensory, and motor changes may accompany a spinal subluxation complex.

Some non-neuromusculoskeletal conditions may be managed by chiropractors when practicing within the scope of their licenses. In assessing the need for chiropractic treatment, both neuromusculoskeletal conditions and any related coexisting non-neuromusculoskeletal disorders should be considered.

Chiropractors treat disease without the use of medications or surgery. When medication or surgery is indicated, the chiropractor should refer the patient to an allopathic or osteopathic physician, as appropriate. Patients may receive medical treatment from an allopathic or osteopathic physician simultaneously or in conjunction with a chiropractic physician.

Chiropractors may diagnose disease and prescribe office-based treatments and home exercises. Chiropractors do not commonly make house calls.

In addition to manipulation, chiropractors may employ adjunctive nutritional, hygienic, and environmental modalities, physiotherapeutic modalities, rehabilitation, and therapeutic massage for the treatment of subluxation and related conditions. The use of adjunctive modalities must be appropriate for the diagnosis and must augment or enhance the manipulative treatment. The type of therapy used should be consistent with the status of the patient's condition (e.g., acute, subacute, rehabilitative or chronic).

Examples of adjunctive physiotherapeutic measures that have been used in chiropractic include:

- Acute phase: thermal (cold) therapy, electrotherapy, trigger point therapy;
- Subacute phase: thermal (heat), electrotherapy, ultrasound; and
- Rehabilitative phase: exercise.

Massage therapy and traction procedures are not considered to be manipulation.

Literature indicates that chiropractic treatment during pregnancy may be appropriate. Chiropractic therapy is often effective in reducing back pain and allowing the patient to function and perform her activities of daily living.

**Physical Therapy Modalities:**

Although chiropractors often use physical modalities with spinal manipulation, there is a lack of evidence that modalities yield additional benefits over spinal manipulation alone. The UCLA Back Pain Study examined the net effect of physical modalities on low back pain outcomes among chiropractic patients in a managed-care setting (Hurwitz, et al., 2002; Hurwitz, et al., 2006). Half of the 681 patients participating in
this clinical trial of low back pain treatment strategies were randomized to chiropractic care with physical modalities (n = 172) or without physical modalities (n = 169). The other half of the study subjects were assigned to medical care with or without physical therapy modalities. Subjects were followed for 6 months with assessments at 2, 4, and 6 weeks and at 6 months. The primary outcome variables were average and most severe low back pain intensity in the past week, assessed with numerical rating scales (0-10), and low back-related disability, assessed with the 24-item Roland-Morris Disability Questionnaire. Almost 60% of the subjects had baseline low back pain episodes of more than 3 months’ duration. The 6-month follow-up was 96%. The investigators reported, comparing groups assigned to chiropractic alone to chiropractic plus physical therapy modalities, the adjusted mean differences between groups in improvements in average and most severe pain and disability were clinically insignificant at all follow-up assessments (Hurwitz, et al., 2002). The investigators reported that clinically relevant improvements in average pain and disability were more likely in the modalities group at 2 and 6 weeks, but this apparent advantage disappeared at 6 months. Perceived treatment effectiveness was greater in the modalities group. The investigators concluded that physical modalities used by chiropractors in this study did not appear to be effective in the treatment of patients with low back pain, although the investigators noted that a small short-term benefit for some patients cannot be ruled out. In a subsequent report on the 18-month outcomes of the UCLA Back Pain Study, 89.6% of the original cohort were followed through 18 months (Hurwitz, et al., 2006). Among study subjects assigned to chiropractic care, assignment to physical therapy modalities in addition to chiropractic was not associated with improvement or remission (adjusted RR = 0.98; 95% CI = 0.62-1.55) compared to chiropractic care alone. The investigators concluded that physical modalities appear to have no benefit in chiropractic care.

In another publication, Haas, et al. (2004) reported on a randomized controlled pilot study conducted in the faculty practice of a chiropractic college outpatient clinic examining the effects of the number of chiropractic treatment visits for manipulation with and without physical modalities on chronic low back pain and disability. The study involved 72 patients with chronic, nonspecific low back pain of mechanical origin. All patients received high-velocity low-amplitude spinal manipulation. Half received one or two of the following physical therapy modalities at each visit: soft tissue therapy, hot packs, electrotherapy or ultrasound. The investigators reported that, at 4 weeks, there was no effect of treatment regimen (chiropractic or chiropractic plus physical therapy modalities) on pain or functional disability at 4 weeks or 12 weeks follow up.

In another randomized controlled clinical study, joint manipulation plus myofascial therapy was found to be no more effective than joint manipulation alone for persons with subacute low back pain. Hsieh, et al. (2002) reported on the results of a randomized, assessor-blinded clinical trial to investigate the relative effectiveness of three manual treatments and back school for patients with subacute low back pain. Two hundred patients with subacute low back pain were randomly assigned to one of four treatments for 3 weeks: back school, joint manipulation, myofascial therapy, and combined joint manipulation and myofascial therapy. The investigators reported that all four groups showed significant improvement in pain and activity scores after 3 weeks of care, but did not show further significant improvement at the 6-month follow-up assessment. No statistically significant differences were found among treatment groups at either the 3-week or 6-month reassessments. The
investigators concluded that, for subacute low back pain, combined joint manipulation and myofascial therapy was no more effective than joint manipulation or myofascial therapy alone.

**Experimental and Investigational Interventions:**

Some diagnostic and therapeutic procedures are not considered medically necessary or essential to the treatment of an illness or injury and are not broadly accepted by the chiropractic profession.

Manipulation is deemed experimental and investigational when it is rendered for non-neuromusculoskeletal conditions, because the effectiveness of chiropractic manipulation for this indication has not been proven by adequate scientific studies, published in peer-reviewed scientific journals. An example is the use of manipulation in lieu of antibiotics for treatment of suppurative otitis media. Manipulative procedures are not proven to be an effective substitute for childhood immunizations or for the treatment of infectious diseases, and are not covered for these indications.

Chiropractic/manipulative management of scoliosis has not been shown to substantially alter the idiopathic scoliotic curve or progression of the curve in late adolescence or adulthood. Therefore, chiropractic manipulation is not considered medically necessary and is not covered for treatment of idiopathic scoliosis or for treatment of scoliosis beyond early adolescence, unless the patient is exhibiting pain or spasm or if some other medically necessary indication for chiropractic manipulation is present.

Scoliotic deviations may be a result of functional adaptations to lumbo-pelvic lower extremity dysfunction for which chiropractic care is appropriate. Manipulative procedures, in conjunction with electrical muscle stimulation and exercise, can significantly reduce the associated muscle spasm and resultant pain of scoliosis during the acute exacerbations and/or injury, and improve spinal mobility prior to an active exercise regimen. Chiropractic/manipulative management of scoliosis, however, has not been shown to substantially alter the idiopathic scoliotic curve or progression of the curve in late adolescence or adulthood.

In a systematic literature review of non-surgical treatment in adult scoliosis, Everett and Patel (2007) stated that there is only very weak evidence for the use of chiropractic manipulation in adult deformity.

In a pilot study, Hawk et al (2009) collected preliminary information on the effect of a limited and extended course of chiropractic care on balance, chronic pain, and associated dizziness in a sample of older adults with impaired balance. These investigators conducted a randomized trial targeting a sample size of 30, comparing 2 schedules of chiropractic care to a no-treatment group. Group 1 (limited schedule) was treated for 8 weeks, group 2 (extended schedule) was treated for 8 weeks and then once-monthly for 10 months, and group 3 received no treatment. Assessments were made at baseline and 1, 2, 6, and 12 months later. The primary outcome was changed in the Berg Balance Scale (BBS) from baseline to 1 year. Changes in the Pain Disability Index (PDI) and Dizziness Handicap Index (DHI) were also measured. A total of 34 patients were enrolled, 13 in group 1, 15 in group 2, and 6 in
group 3. Only 5 had baseline BBS scores less than 45, indicating increased risk for falls. There were no treatment-related adverse events. Nine patients dropped out by 1 year. No significant differences within or between groups in median BBS from baseline to 12 months were observed. Median PDI scores improved more from baseline to 1 year in group 2 compared with groups 1 and 3 (p = 0.06, Kruskal-Wallis test). For the 9 patients with dizziness, a clinically significant improvement in DHI scores of groups 1 and 2 was observed at 1 month and remained lower than baseline thereafter; this was not true of group 3. The authors concluded that further investigation of the possible benefit of chiropractic maintenance care (extended schedule) for balance and pain-related disability is feasible and warranted, as well as both limited and extended schedules for patients with idiopathic dizziness.

The use of chiropractic to correct abnormal spinal curvature in asymptomatic persons is considered experimental and investigational. Chiropractic Biophysics Technique (CBP), also known as Clinical Biomechanics of Posture, is a variation of straight (subluxation-based) chiropractic whose overall goal is to restore posture. CBP advocates are reported to ascribe to the controversial position that decreased neck curvature is pathological and requires correction whether or not the patient has symptoms.

The CBP method is based on the idea that postural analysis is valid for diagnosing ligament contractures, muscle weakness, and proprioceptive deficits. The assumed deficits supposedly reduce blood flow, which decreases oxygen delivery and causes various diseases. To qualify for treatment, patients undergo a postural examination and are screened for contraindications to manipulation and cervical extension traction. Therapy begins with relief care consisting of 1 to 12 sessions of spinal adjustments, cold or hot packs, trigger point therapy for muscle spasms, and/or massage with a motorized table. When relief care ends, CBP practitioners switch patients to rehabilitative care, which consists of weekly mirror image adjustments, neck and low back extension traction, as well as mirror image exercises intended to modify spinal curvature over a longer period of time. Initial rehabilitative plans often last 6 to 12 months, after which patients are switched to monthly visits for life.

There is insufficient scientific evidence to support the use of CBP. The published peer reviewed literature focuses primarily on explaining the theoretical basis for the Chiropractic Biophysics Technique. Harrison, et al. (1996) discussed the theory underlying the Chiropractic Biophysics Technique, explaining how certain linear algebra concepts provide the theoretical basis for making postural corrections. The authors explained how Chiropractic Biophysics Technique uses these concepts in examination procedures, manual spinal manipulation, instrument assisted spinal manipulation, postural exercises, extension traction and clinical outcome measures. Jackson, et al. (1993) reported on the intra- and inter-rater reliability of the geometric line drawings used in CBP on lateral cervical radiographs. The investigators concluded that the reliabilities for intra- and inter-examiner were accurate enough to provide measurements for future clinical studies.

There is a paucity of published peer reviewed literature evaluating the effectiveness of the Chiropractic Biophysics Technique in improving clinical outcomes (e.g., reductions in pain and disability, improvements in function). Colloca & Polkinghorn (2003) described the use of CBP protocols in conjunction with other chiropractic...
techniques in two persons with Ehlers-Danlos syndrome. In a 10-year follow-up study of neck x-ray findings in asymptomatic patients, Gore (2001) found no relationship between the loss of neck curvature and the development of pain or degenerative changes. Haas and colleagues (1999) noted that changes in spinal structure do not necessarily cause symptoms. They stated that CBP advocates have failed to (i) establish the biological plausibility of what they consider an ideal spine, (ii) show that their diagnostic tests enable better patient management, (iii) demonstrate meaningful outcomes such as decreased pain or disability, and (iv) validate the routine use of spinal x-rays to measure spinal displacement.

Active release technique (ART) is a patented soft tissue system that treats problems with muscles, tendons, ligaments, fascia and nerves (e.g., headaches, back pain, carpal tunnel syndrome, shin splints, shoulder pain, sciatica, plantar fasciitis, knee problems, and tennis elbow). These conditions have one important commonality -- they often result from injury to over-used muscles. Each ART session is a combination of examination and treatment. The ART provider uses his/her hands to evaluate the texture, tightness and movement of muscles, fascia, tendons, ligaments and nerves. Abnormal tissues are treated by combining precisely directed tension with very specific patient movements. These treatment protocols - over 500 specific moves - are unique to ART. They supposedly allow providers to identify and correct the specific problems that are affecting each individual patient. Active release technique is similar to some massage techniques, albeit more aggressive.

While ART may be utilized by some chiropractors, it is different from conventional chiropractic manipulation. Furthermore, Drover, et al. (2004) reported that ART protocols did not reduce inhibition or increase strength in the quadriceps muscles of athletes with anterior knee pain. Further study is required.

In a Cochrane review, Proctor et al (2006) concluded that there is no evidence to suggest that spinal manipulation is effective in the treatment of primary and secondary dysmenorrhea. In a review on the use of complementary and alternative medicine (CAM) including manipulative-based medicine such as chiropractic in the treatment of epilepsy, Ricotti and Delanty (2006) noted that in the available literature, there is a sense of the merit of these therapies in epilepsy, but there is a paucity of research in these areas. The authors stated that, in a science of double-blind, randomized controlled trials, appropriate designs and outcome measurements need to be tailored to CAM. More effort needs to be put into future trials, with the assistance of qualified CAM professionals to ensure conformation to their therapeutic principles.

The ProAdjuster is a hand-held device most commonly used by chiropractors for the diagnosis and treatment of back pain. The technology associated with this device entails the use of a piezoelectric sensing head/probe that is pressed onto the spine sending ultrasound to the vertebral column for measurements of movement of each vertebra or the lack of it. A series of signal waves, each representing an individual vertebra, appears on a computer screen beside digital bar charts, where longer, red bars indicate a mis-alignment in the lower spine. When the ProAdjuster identifies a problem, it then delivers a series of rapid and measured percussion taps that works like a traditional chiropractic adjustment. The sensing system will automatically stop the adjustment when normal motion is detected.
There is insufficient scientific evidence regarding the clinical value of the ProAdjuster for the management of patients with back pain or any other conditions. Available published literature centers on the piezoelectric sensor technology. According to Zhang and Fu (2004), piezoelectric quartz crystal biosensor is a new sensor with the comprehensive utilization of the high sensitivity to mass and the surface characteristics of quartz crystal (e.g., conductance, density, dielectric constant, viscosity), as well as the high specificity of biologic identification molecules. The authors state that piezoelectric quartz crystal biosensors have been used in various settings such as environmental monitoring (e.g., detection of organophosphate levels in river water), foods sanitary control (e.g., detection of sulfamethoxazole residue or Salmonella in milk), as well as medical laboratory diagnosis (e.g., DNA biosensor, biosensor for estrogenic substances, and micro-array immunosensor for quantitative detection of serum or urine human chorionic gonadotropin).

Beck and colleagues (2005) compared a piezoelectric contact sensor with an accelerometer for measuring the mechanomyographic (MMG) signal from the biceps brachii during sub-maximal to maximal isokinetic and isometric forearm flexion muscle actions. These researchers found that there were no significant relationships for normalized MMG mean power frequency (MPF, percent maximum) versus isokinetic and isometric torque for the contact sensor, but the accelerometer demonstrated a quadratic or linear relationship for the isokinetic and isometric muscle actions, respectively. There were also a number of significant mean differences between the contact sensor and accelerometer for normalized MMG amplitude or MPF values. The findings of this study indicated that in some cases involving dynamic and isometric muscle actions, the contact sensor and accelerometer resulted in different torque-related responses that may affect the interpretation of the motor control strategies involved.

A number of other spinal adjusting instruments have been developed that share similarities to the ProAdjuster, including the PulStarFRAS. Similar to the ProAdjuster, the PulStarFRAS (Function Recording and Analysis System) can be used for diagnostic as well as therapeutic purposes. The PulStarFRAS is designed to generate an objective and repeatable analysis of the mobility (compliance) of the spinal structure. The resulting computerized differential compliance (CDC) scans are used as an aid in the identification of spinal joint dysfunction. The PulStarFRAS provides a low-force multiple impulse therapy to resolve joint fixation. There is a lack of adequate evidence regarding its clinical value of the PulStarFRAS.

The Activator is a spinal adjusting instrument that is similar to the ProAdjuster in that it provides low force. The Activator Methods Chiropractic Technique system of analysis isolates and locates euronro-articular dysfunctions or subluxations by observing changes in relative leg length while the patient lies prone on a treatment table. The Activator Adjusting Instrument is applied based on indications from the analysis as to somatic location and force vector. The Activator produces a maximum of 0.3 Joules of kinetic energy, which is intended to be sufficient to induce relative movement of vertebrae and their associated joints, but below the forces associated with tissue injury.

There is insufficient evidence to validate the clinical validity of the Activator Methods Chiropractic Technique methods of leg length analysis. In addition, there is
insufficient evidence that use of the Activator results in benefits equivalent to the more studied methods of manual chiropractic manipulation.

A study by Wood, et al. (2001) is a controlled clinical outcome study comparing the Activator technique to manual manipulation. In a pilot study (n = 30), Wood, et al. (2001) found that both instrumental manipulation by means of the Activator II Adjusting Instrument and manual manipulation have beneficial effects associated with reducing pain and disability and improving cervical range of motion in patients with neck pain. In this study, subjects were randomly assigned to two groups: one group was assigned to manipulation with the Activator, the other to manual chiropractic manipulation using a standard technique. The Activator Methods Chiropractic Technique of leg length analysis was used to determine treatment locations in both the instrument group and the manual group. All treatments, both manual and instrumental, were applied by a single chiropractor. Subjects were treated until they were asymptomatic or received a maximum of 8 treatments, and were followed for one month after completion of therapy. The investigators reported that no significant differences were observed between the instrumental manipulation group and the manual manipulation group with respect to subjective outcomes (pain and disability) and objective outcomes (range of motion) (p > 0.025). The study has a number of important limitations, including the small sample size, so that the study may be underpowered to detect clinically significant differences in outcomes among groups. In addition, the small size of the study and the fact that all treatments were provided by a single chiropractor raise questions about the generalizability of the findings. The investigator who assessed the clinical outcomes was not blinded to group assignment, raising the possibility of examiner bias. The short duration of follow up in this study does not allow one to compare the durability of results of these treatments. The statistical analysis used in this study was inappropriate to answer the key question about the effectiveness of the Activator compared to manual therapy in that the study used a superiority design rather than a more stringent noninferiority design (i.e., the null hypothesis of this study was that there were no significant differences between the groups in clinical improvement). The investigators stated that future studies could benefit from including an untreated group and a sham treatment group to determine the true clinical benefits of these manipulative procedures. The investigators concluded that a randomized controlled clinical trial in a similar patient base with a larger sample size is necessary to verify the clinical relevance of these findings.

An unpublished study (Pfefer, et al., 2007) compared the outcomes in terms of pain and function of acute low back pain patients treated with either Activator Methods Chiropractic Technique or a standard method of chiropractic manipulation (Diversified chiropractic spinal manipulation). Forty-seven patients with acute or subacute low back pain were randomly assigned to the Activator Technique or manual chiropractic manipulation. Each treatment group had a single chiropractic practitioner. The Activator doctor used the standard Activator leg length discrepancy protocols, whereas the manual therapy doctor used a combination of motion and static palpation to determine the areas to be treated. Subjects were treated with duration and frequency at the clinical discretion of each group’s treating chiropractor, for up to 6 weeks. Subjects were assessed at study initiation, at weekly intervals for the first three weeks of therapy, and at week six. The investigators reported that the null hypothesis of non-equivalence was rejected for measure of disability (the Modified Oswestry disability questionnaire score), but not for pain (Visual Analog
Scores (VAS for pain). This study avoided some of the limitations of the study by Woods, et al., in that it used an equivalence design for statistical analysis rather than a superiority design; tolerance was set at 20%, so that the two treatments could differ from each other by up to 20% and still be considered equivalent. Outcomes were assessed in a blinded manner by student research assistants. The investigators noted that a clear weakness of this study is confounding of the provider with the technique, and that future studies could address this issue by assigning several providers of equal competence to deliver the technique. Other limitations of this study are the small sample sizes and limited duration of follow up.

Kawchuk, et al. (2006) reported on a study comparing variability in the magnitude and duration of force produced by manual and instrument-based manipulation. In this study, four therapists (two novices and two experts certified in the use of Activator instruments by the manufacturer) used four different mechanical instruments to apply force to a load cell fixed to a rigid surface. These four instruments included two spring-based instruments (the Activator IV and the Activator Signature), a compressed gas instrument (the Air Activator), and an electromechanical instrument (the Impulse from Neuromechanical Innovations, Phoenix, AZ). A different group of two experts licensed in chiropractic and two unlicensed novices used traditional manual techniques to apply force to a sensor mat. The investigators reported that manual applications of force were generally greater in magnitude and duration than those delivered by instrument. The mean force of all manual applications was 264 Newtons and the mean force duration was 145 milliseconds, whereas the mean force for all instrument applications was 171 Newtons and the average force duration was 0.963 milliseconds. The investigators reported that force-producing instrumentation exhibited less variation in absolute force and force duration compared to manual techniques. On average, the standard deviation for all manual applications represented 16% of the applied force and 23% of the mean force duration. For all instrument applications, the standard deviation represented 4% of the mean applied force and 5% of the mean force duration. The investigators noted, however, that there were significant differences in absolute force between operators using the same instrument. The investigator concluded that the use of an instrument would be expected to reduce human inconsistency and result in reduced variation in magnitude and duration of force among operators. This study is limited in that it did not report on clinical outcomes of manual versus instrumented manipulation in humans.

Yates, et al. (1988) examined the effectiveness of the Activator technique compared to sham Activator treatment in lowering blood pressure or no treatment in 21 patients with elevated blood pressure, finding that the Activator treatment significantly reduced blood pressure in the short term. The investigators concluded that further research is necessary to evaluate the long-term effectiveness of treatment. "While spinal manipulative therapy appears to be effective in producing a temporary reduction in blood pressure immediately after treatment, the effect of such treatment in reducing blood pressure over a period of days or weeks is unknown and warrants further investigation."

In a case series study (n = 9), Devocht et al (2003) reported that the symptoms of temporomandibular disease improved following a course of treatment using the Activator methods. The authors concluded that further investigation of this type of
chiropractic treatment for patients with the articular type of temporomandibular disease is warranted. Moreover, Fuhr and Menke (2005) stated that the Activator Adjusting Instrument may be a clinically useful tool, but its ultimate scientific validation requires testing using sophisticated research models in the areas of neurophysiology, biomechanics, and statistical analysis. This is in agreement with the observation of Polkinghorn (1998) who noted that instrument-delivered adjustments (i.e., the Activator Adjusting Instrument) may provide benefit in cases of cervical disc protrusion in which manual manipulation causes an exacerbation of the symptoms or is contraindicated altogether. The author concluded that further study in this area should be made via large scale studies organized in an academic research setting.

The Atlas orthogonal technique is an upper-cervical, spinal-corrective procedure that is intended to restore a person’s balance and stimulate the natural-healing capabilities normally present in the body. Unlike other chiropractic procedures, there is no twisting or cracking involved. Besides correcting spinal issues, the Atlas orthogonal technique is thought to help with various conditions such as arthritis, migraine headaches, asthma, and fibromyalgia. However, there is a lack of evidence regarding the clinical value of this technique.

The Blair technique is a specific system of analyzing and adjusting the upper cervical vertebrae. Attention is given to the atlas and axis (the first 2 cervical vertebrae) since they are the most freely moveable vertebrae in the spinal cord and the ones most commonly mis-aligned. The objective of the Blair technique is not to diagnose or treat diseases or conditions, but to analyze and correct vertebral subluxations such that the body can repair and maintain health from within. However, there is a lack of evidence regarding the clinical value of this technique.

Biogeometric integration is supposedly a conceptual understanding that enhances chiropractors’ knowledge of the human body. Seminars on biogeometric integration provide an understanding of the innate geometry of the body and force dynamics surrounding the creation and release of subluxations. The philosophy, science, and art of chiropractic are examined from a post-Newtonian point of view, providing the opportunity to express and understand chiropractic in accord with contemporary science. Through understanding of the innate geometry of the body, chiropractors are thought to be able to more effectively and gently release the subluxation and assess the effectiveness of the adjustment. The geometric understanding of the body also serves to bridge the gap between the many techniques of chiropractic by providing a common language and understanding from which to converse. However, there is a lack of evidence regarding the clinical value of this approach.

The Whitcomb technique, advocated by Paul Whitcomb, allegedly can cure patients with fibromyalgia. It entails a quick neck manipulation, 3 times a day, 5 days a week, for at least 2 months. The number of neck manipulations ranged from 60 to 143. However, there is a lack of evidence regarding the clinical value of this method.

Karpouzis et al (2009) stated that an abundance of literature is dedicated to research for the treatment of attention deficit hyperactivity disorder (ADHD). Most, is in the area of pharmacological therapies with less emphasis in psychotherapy and psychosocial interventions and even less in the area of complementary and
alternative medicine (CAM). The use of CAM has increased over the years, especially for developmental and behavioral disorders, such as ADHD. Almost two-thirds of parents with children with ADHD have used CAM. Medical evidence supports a multi-disciplinary approach (i.e., pharmacological and psychosocial) for the best clinical outcomes. The Neuro Emotional Technique (NET), a branch of chiropractic, was designed to address the biopsychosocial aspects of acute and chronic conditions including non-musculoskeletal conditions. Anecdotally, it has been suggested that ADHD may be managed effectively by NET. A randomized, placebo-controlled, double-blind, clinical trial was designed to assess the effectiveness of NET on a cohort of children with medically diagnosed ADHD. Children aged 5 to 12 years who met the inclusion criteria were randomized to one of three groups. The control group continued on their existing medical regimen and the intervention and placebo groups had the addition of the NET and sham NET protocols added to their regimen, respectively. These two groups attended a clinical facility twice-weekly for the first month and then once-monthly for 6 months. The Conners’ Parent and Teacher Rating Scales (CRS) were used at the start of the study to establish baseline data and then in 1-month and in 7-month time, at the conclusion of the study. The primary outcome measures chosen were the Conners’ ADHD Index and Conners’ Global Index. The secondary outcome measures chosen were the DSM-IV: Inattentive, the DSM-IV: Hyperactive-Impulsive, and the DSM-IV: Total subscales from the Conners’ Rating Scales, monitoring changes in inattention, hyperactivity and impulsivity. Calculations for the sample size were set with a significance level of 0.05 and the power of 80%, yielding a sample size of 93. The authors noted that the present study should provide information as to whether the addition of NET to an existing medical regimen can improve outcomes for children with ADHD.

Preventive or Maintenance Chiropractic Manipulation:

Preventive or maintenance chiropractic manipulation has been defined as elective health care that is typically long-term, by definition not therapeutically necessary but is provided at preferably regular intervals to prevent disease, prolong life, promote health and enhance the quality of life. This care may be provided after maximum therapeutic improvement, without a trial of withdrawal of treatment, to prevent symptomatic deterioration or it may be initiated with patients without symptoms in order to promote health and to prevent future problems.

Preventive services may include patient education, home exercises, and ergonomic postural modification. The appropriateness and effectiveness of chiropractic manipulation as a preventive or maintenance therapy has not been established by clinical research and is not covered.

Supportive care has been defined as treatment for patients who have reached maximum therapeutic benefit, but who fail to sustain benefit and progressively deteriorate when there are periodic trials of treatment withdrawal. Continuation of chiropractic care is considered medically necessary until maximum therapeutic benefit has been reached, when the patient fails to progress clinically between treatments, or when pre-injury/illness status has been reached. Once the maximum therapeutic benefit has been achieved, continuing chiropractic care is not considered medically necessary and thus is not covered.
Active corrective care is ongoing treatment, rendered after the patient has become symptomatically and objectively stable, to prevent a recurrence of a patient’s condition by correcting underlying abnormal spinal biomechanics that appear to be the cause of the initial injury. The efficacy of active corrective care is not supported by scientific evidence and is not covered.

CPT Codes / HCPCS Codes / ICD-9 Codes

CPT codes covered if selection criteria are met:

98940
98941
98942
98943

CPT codes not covered for indications listed in the CPB:

22505
93760
93762

Other CPT codes related to the CPB:

20552
20553
95831 - 95857
95860 - 95904
95934 - 95936
96000 - 96004
97001 - 97799

Other HCPCS codes related to the CPB:

G0151 Services of physical therapist in home health setting, each 15 minutes
S3900 Surface electromyography (EMG)
S9131 Physical therapy; in the home, per diem

ICD-9 codes covered if selection criteria are met (not all-inclusive):

307.81 Tension headache
346.00 Migraine
The above policy is based on the following references:

24. Nyiendo J, Haas M, Goodwin P. Patient characteristics, practice activities, and one-month outcomes for chronic, recurrent low-back pain treated by


Arizona City, AZ: J.M. Mazion Publisher; 1980.


104. Hughes S, Bolton J. Is chiropractic an effective treatment in infantile colic?


