



# CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all plans administered by CIGNA Companies including plans administered by Great-West Healthcare, which is now a part of CIGNA.

Effective Date ..... 12/15/2009  
Next Review Date ..... 12/15/2010  
Coverage Policy Number ..... 0267

## Subject Chiropractic Care

### Table of Contents

Coverage Policy .....	1
General Background .....	2
Coding/Billing Information .....	6
References .....	8
Policy History .....	11

### Hyperlink to Related Coverage Policies

- Complementary and Alternative Medicine
- Electrical Stimulators
- Electromyography Studies
- Home Traction Devices: Cervical and Lumbar
- Manipulation Under Anesthesia (MUA)
- Massage Therapy
- Mechanical Devices for the Treatment of Back Pain
- Nerve Conduction Velocity Studies Including Late Response (H-Reflex and F-Wave)
- Physical Therapy
- Scoliosis Treatments, Idiopathic
- Somatosensory Evoked Potentials
- Spinal Ultrasound
- Thermography/Temperature Gradient Studies

### INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans as well as benefit plans formerly administered by Great-West Healthcare. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a participant's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a participant's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable group benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2009 CIGNA

## Coverage Policy

Chiropractic care is specifically excluded under some benefit plans. When covered, chiropractic care may be subject to the terms, conditions and limitations of the applicable benefit plan's Short-Term Rehabilitative Therapy or Chiropractic Care Services benefit and schedule of copayments. Many benefit plans include a maximum allowable benefit for duration of treatment or number of visits. When the maximum allowable benefit is exhausted, coverage will no longer be provided even if the medical necessity criteria described below are met. In addition, chiropractic care provided to treat an injury or condition that is work-related or was sustained in the workplace may require coordination of benefits (COB). Please refer to the applicable benefit plan document to determine the terms, conditions and limitations of coverage.

**If coverage for chiropractic care is available, the following conditions of coverage apply.**

**CIGNA covers chiropractic manipulation and adjunct therapeutic procedures/modalities (e.g., mobilization, therapeutic exercise, traction) as medically necessary when ALL of the following conditions are met:**

- A neuromusculoskeletal condition is diagnosed that may be relieved by standard chiropractic treatment in order to restore optimal function.
- Chiropractic care is being performed by a licensed doctor of chiropractic who is practicing within the scope of his/her license as defined by state law.
- The individual is involved in a treatment program that clearly documents all of the following:
  - a prescribed treatment program that is expected to result in significant therapeutic improvement over a clearly defined period of time
  - the symptoms being treated
  - diagnostic procedures and results
  - frequency, duration and results of planned treatment modalities
  - anticipated length of treatment plan with identification of quantifiable, attainable short-term and long-term goals
  - demonstrated progress toward significant functional gains and/or improved activity tolerances

**CIGNA does not cover chiropractic manipulation and adjunct therapeutic procedures/modalities (e.g., mobilization, therapeutic exercise, traction) for ANY of the following, as they are considered not medically necessary:**

- for manipulations or modalities that are not related to the individual's symptoms, not likely to result in sustained improvement, or do not have defined endpoints, including maintenance, preventive or supportive care or care provided to prevent reoccurrences or slow deterioration
- services provided to reduce potential risk factors where significant improvement is not expected
- for duplicated services, when provided by a physical therapist or other health professional

**CIGNA does not cover chiropractic manipulation and adjunct therapeutic procedures/modalities (e.g., mobilization, therapeutic exercise, traction) for treatment of non-neuromusculoskeletal conditions because it is considered experimental, investigational or unproven.**

**CIGNA does not cover EITHER of the following procedures because each is considered experimental, investigational or unproven:**

- digital radiographic mensuration
- digital postural analysis

---

## **General Background**

Chiropractic care is a system that, in theory, uses the recuperative powers of the body and the relationship between the musculoskeletal structures and functions of the body, particularly of the spinal column and nervous system, to restore and maintain health without drugs or surgery. Chiropractic science is based on the premise that abnormalities and misalignments of the spine, defined as subluxations, distort and interrupt the normal function of the nervous system.

Chiropractic care may be a primary method of treatment for some medical conditions, and for others it may complement or support medical treatment. Chiropractic care typically involves neuromuscular treatment in the form of manipulation, mobilization and adjustment of the tissues of the body, particularly of the spinal column. The correction of the subluxation(s) through manipulation of the spinal structures is thought to remove nervous system interference and restore optimal function. In addition to manual therapy and therapeutic exercise, other modalities, both passive and active, are often used as adjunct treatments throughout the treatment program.

Manipulation and mobilization are methods used to apply force to a joint with the intent of normalizing function. Manipulation is defined as a manual procedure that involves a directed thrust to move a joint past its physiological range of motion, without exceeding the anatomical limit. Mobilization is defined as passive movement of a joint within its physiological range for the purpose of increasing overall joint motion.

Various manipulative/adjustment techniques may be employed by doctors of chiropractic, and practitioners may vary in the approaches utilized. The term "spinal manipulation" refers to all types of manual techniques. While many techniques are taught both in and outside the established curriculum, the most widely taught techniques include the following:

- **Diversified:** This is the most commonly used of all techniques and employs a high-velocity, low-amplitude thrust that usually results in cavitation of a joint.
- **Extremity manipulation/adjusting:** This application is used for joints other than the spine, such as the shoulder, elbow, wrist, hand, finger, hip, knee, etc., and may be used for carpal tunnel syndrome, gait or posture-related problems.
- **Activator methods:** This employs the use of a hand-held spring-loaded instrument-based manipulation/adjustment protocol. Force is generated by the appliance (e.g., Activator Adjusting Instrument [Activator Methods International, Ltd., Phoenix, AZ]; AcuWave [Sigma Instruments, Inc. Cranberry, PA]) and can be used as a primary treatment method for all patients.
- **Gonstead:** This technique is a variation of the Diversified technique and utilizes manipulation/adjustment by hand that results in joint cavitation, and may use radiograph analysis, palpation, and temperature gradient studies to determine which segments to manipulate.
- **Cox flexion distraction:** This technique employs the use of mechanical and hands-on manipulation/adjustment by utilizing a special table where traction is applied to the spine and the spine is flexed forward. This technique requires active participation from the physician and is not primarily mechanical and provider passive such as with mechanical traction or a traction table. It is primarily used to treat disc herniation, non-disc spinal disorders, and to increase mobility of the spinal joints.
- **Thompson:** This is also a variation of the Diversified technique using a table with several segments called drop pieces. The drop pieces assist the thrust while minimizing the force used for the manipulation/adjustment.

Chiropractic care may be employed as a treatment for many conditions of the spine, such as low-back pain and cervical and thoracic spine disorders. Chiropractic care may be used as treatment for extremity joint and temporomandibular joint (TMJ) conditions. In addition, chiropractic care has been utilized for the treatment of idiopathic scoliosis; however evidence is lacking, the efficacy of manual therapy for correcting the scoliotic curve or progression of the curve has not been established in the peer-reviewed published scientific literature. The long-term safety and effectiveness of the use of chiropractic management and manual therapies in the treatment of non-neuromusculoskeletal conditions, including but not limited to hypertension, obesity, rheumatoid arthritis, smoking, asthma, colic and otitis media have not been proven in the medical literature through long-term, randomized, controlled clinical trials.

Most studies involving the long-term safety and effectiveness of spinal manipulation have been done on adult populations. Thus, no generalizations can be made regarding the long-term safety and effectiveness of spinal manipulation for other populations.

Response to chiropractic treatment typically occurs within four weeks. Continuation of chiropractic care is considered medically necessary until a maximum therapeutic benefit has been reached, when the patient fails to show improvement, or when a pre-injury level of functioning has been reached. Chiropractic physicians should document in clinical records the objective findings and subjective complaints that support the necessity for a chiropractic treatment regimen. A treatment plan should be developed with planned modalities (frequency and duration), measurable and attainable goals (short- and long-term), and anticipated duration of care. There should be a reasonable expectation that the identified goals will be met. The following are recommended:

- If conservative care is appropriate, a short course (not to extend beyond four weeks) is warranted. If the patient demonstrates objective evidence of improvement, up to an additional four weeks of care may be appropriate.

- The provider should attempt to integrate some form of active care. Continued use of passive care modalities may lead to patient dependency and should be avoided.
- The utilization of more than 2–3 passive modalities per office visit is excessive and is not supported as necessary.
- These rules hold true for acute, chronic and postsurgical cases. No matter what specific treatment is chosen, it must yield identifiable, objective outcomes to establish the necessity of care.

The treating physician commonly determines that a patient is unresponsive to a treatment program when two consecutive reexaminations demonstrate lack of progress. When this occurs, the physician should develop an alternate treatment program, focusing on a change to overcome the patient's lack of improvement. If there is still no continued improvement in outcome assessment at the end of the third to fourth week of a treatment program, consultation or referral may be indicated.

The chiropractor should document at each visit and periodically how the patient is progressing. This documentation should contain both quantitative and qualitative measures that clearly define level of function and/or activity tolerance. If improvement is demonstrated, continued treatment should reflect ongoing patient progression toward identified goals.

In many cases, musculoskeletal conditions do not resolve completely within one or two months. Once maximum therapeutic benefit from chiropractic care has been obtained, additional chiropractic care may be considered as elective preventive/maintenance care or supportive care; however, the potential for the patient to develop dependency on this form of treatment should be considered. Supportive care is defined as long-term treatment or care that is therapeutically necessary. It is considered a treatment for patients who have reached a maximum benefit but fail to sustain the benefit and progressively deteriorate when removed from treatment programs. Once a maximum benefit has been reached, continuing chiropractic care is considered not medically necessary.

Preventive/maintenance care is defined as elective healthcare that is typically long-term, by definition not therapeutically necessary, but provided at intervals (preferably regular) to prevent disease, prolong life, promote health and enhance the quality of life. Ongoing preventive/maintenance care may include patient education, screening procedures to identify risk, a home exercise program (HEP), and lifestyle modifications in the hope of promoting optimal health. Evidence in the published, peer-reviewed, scientific literature has not shown that preventive chiropractic services are effective and improve long-term clinical outcomes.

### **Adjunct Modalities**

In addition to spinal manipulation, which is a manual therapy, other modalities, both passive and active, are often used as adjunct treatments. Passive modalities include treatments such as electrical stimulation, therapeutic ultrasound, high-voltage galvanic stimulation, therapeutic heat, cryotherapy, passive assistive exercise, traction, diathermy and massage. Passive modalities are most effective during the acute phase of treatment, as they are typically directed at reducing pain and swelling. They may also be used during the acute phase of an exacerbation of a chronic condition. The optimal duration of a course of passive modalities is a maximum of one to two months, after which their effectiveness diminishes, and patient dependency may develop. Treatment plans for patients who are at risk for developing chronic conditions should de-emphasize passive care and refocus on active care approaches. When utilizing passive modalities after a lasting physiological benefit has been reached, the modalities serve only to facilitate the manipulation and are considered integral to the manipulative procedure.

Most uncomplicated cases can be adequately managed with spinal manipulation plus one or two adjunct modalities. Using more than two to three adjunctive passive modalities in one visit, in addition to joint manipulation, is considered excessive and not of proven benefit. Chiropractic care provided five or more times per week for more than one week is generally not medically necessary. The provision of duplicate services by other providers, such as physical therapy for the same condition, is not typically warranted.

As swelling and inflammation are reduced, the need for stabilization and support is replaced by the need to increase range of motion and restore function. Active modalities include increasing range of motion, strengthening primary and secondary stabilizers of a given region, and increasing endurance capabilities of the muscles. Active modalities focus on patients' active participation in their exercise programs. Progressive

resistive exercises are considered an active modality. Many active modalities focus primarily on patient education and training (e.g., back to school, work hardening programs, vocational rehabilitation programs, functional restoration programs, weight training, endurance training). Active modalities may be performed independently and safely by the patient in a setting not medically supervised.

### **Chiropractic Scope of Practice**

Chiropractic care is licensed and regulated in all 50 states. State statutes determine the scope of clinical procedures that chiropractors may legally perform in their respective jurisdictions. Providing care for neuromusculoskeletal conditions using manipulation as a primary intervention is within the scope of practice in all states. All states currently exclude prescribing drugs and performing major surgery from chiropractic practice (AHCP, 1997). The legal right to use other procedures, including modalities, myofascial works, and acupuncture, varies from state to state. Some states have expansive scopes of practice that may include specialty diagnostic testing, pelvic and rectal exams, venipuncture, and acupuncture. Specific state licensure information should be referenced when there is any question about the scope of license.

**Laboratory Testing:** Conservative management of neuromusculoskeletal conditions does not routinely include the use of laboratory testing.

**Diagnostic Imaging:** Diagnostic imaging, which may be used as a screening procedure for some conditions, is used far more often than laboratory procedures (AHCP, 1997). The need for frequent diagnostic images for purely biomechanical analysis is not well-supported, nor is the need for imaging patients prior to release from care. The decision for radiographic re-examination should be based on patient symptoms, physical findings, and the potential impact of the results of the examination on the treatment plan and on net health outcome.

Diagnostic ultrasound should only be performed for valid medical reasons, according to the American College of Radiology (ACR) practice guidelines for performing and interpreting diagnostic ultrasound examinations (2006). While some guidelines indicate diagnostic ultrasound may be indicated for musculoskeletal conditions, according to the American Institute of Ultrasound Medicine (AIUM) guidelines, the indications are for musculoskeletal interventions, and include, but are not limited to, aspiration of cysts, fluid collections and abscesses, arthrocentesis, ultrasound-guided biopsy and injections (AIUM, 2007). Additionally, in 2002, the AIUM issued the following statement, "The use of diagnostic spinal ultrasound (for the study of facet joints and capsules, nerve and fascial edema, and other subtle paraspinal abnormalities) for diagnostic evaluation, for evaluation of pain or radiculopathy syndromes, and monitoring of therapy has no proven clinical utility."

Other special studies that may be used as part of a conservative treatment plan include nerve conduction studies, electromyography studies, and other imaging techniques. The clinical utility of some laboratory testing, diagnostic tools, and/or rehabilitative devices, has not been proven in the medical literature through well-designed clinical trials and the published scientific evidence is insufficient to show improvement in net health outcomes when these services are performed. Consequently, the use of any of the following procedures and/or devices remains unproven or not medically necessary:

- diagnostic musculoskeletal ultrasound for soft-tissue injury
- surface electromyography/paraspinal electromyography
- massage therapy, if not performed in conjunction with other modalities or manipulation
- hot or cold packs used in the absence of other modalities or manipulation
- iontophoresis or phonophoresis, if not employed in conjunction with other modalities or manipulation
- thermography
- MedX lumbar/cervical extension machine
- Cybex back system/BioDex
- vertebral axial decompression therapy and devices (e.g., VAX-D Therapeutic Table<sup>®</sup>, Decompression Reduction Stabilization<sup>®</sup> System [DRX])
- spinal ultrasound

**Digital Postural Analysis:** Posture analysis is a method by which deviation in posture may be determined, theoretically identifying areas that are likely to cause or are causing pain. Various systems may be utilized to conduct posture analysis and include software systems for analyzing digital/video images. Following the procedure, a report is produced identifying posture deviations. Postural analysis may be used to document

posture before and after treatment sessions, to educate individuals regarding deviations and causes of pain and to customize and monitor treatment plans. However, there is lack of evidence in the peer-reviewed published scientific literature evaluating this technology and conclusions cannot be drawn regarding the added benefit of digital postural analysis and how this technology affects treatment plans to improve clinical outcomes.

**Digital Radiographic Mensuration:** Digital radiographic mensuration, also referred to as radiographic digitization, or computer-aided radiographic mensuration analysis (CRMA), refers to a computerized analysis of osseous geometric relationships, often employed as part of postural analysis. Mensuration is a term that refers to chiropractic line measurements, with or without computer digitalization and may be used to assess subluxation and alignment. Historically, chiropractic line measurements were drawn manually on radiographs with the use of rulers, pencils and protractors. Manual marking techniques may lead to error and more recently, computer aided or digitalized mensuration has been utilized, theoretically providing results more rapidly and with less variance. Although published data comparing digital radiograph mensuration to manual methods is limited, a few results for reliability testing have been published and lend some support to concurrent validity when compared to manual methods (Trojanovich, et al., 2000). However, well-designed clinical trials supporting efficacy are lacking in the medical literature and there is insufficient evidence to support that the use of this technology adds any benefit or improvement of health outcomes when compared to standard chiropractic techniques.

### Other Common Medical Practices

The AHCPR's self-care recommendations for acute adult low back problems include activity modification to avoid irritation of the back condition (maintaining enough activity to avoid weakening of muscles, using proper body mechanics, and avoiding heavy lifting); low-stress exercising; and a gradual return to normal activities.

Common medical practices that may also be used to manage neuromusculoskeletal conditions, such as sprains and strains, include home use of nonsteroidal anti-inflammatory drugs (NSAIDs), cold packs, moist heat, rest and a gradual increase of activity.

### Summary

Chiropractic care involves neuromuscular treatment in the form of manipulation and adjustment of the tissues of the body, particularly of the spinal column. Chiropractic procedures may include spinal manipulation and mobilization in combination with both passive and active adjunctive modalities aimed at improving joint motion and function. Providing care for neuromusculoskeletal conditions using manipulation as a primary intervention is within the scope of practice in all states. Response to treatment is typically demonstrated within four weeks of therapy. When the patient reaches a maximal level of functioning or activity tolerance or fails to show improvement, chiropractic care is no longer medically necessary.

## Coding/Billing Information

**Note:** This list of codes may not be all-inclusive.

**Covered when medically necessary:**

CPT®* Codes	Description
97010	Application of a modality to one or more areas; hot or cold packs
97012	Application of a modality to one or more areas; traction, mechanical
97014	Application of a modality to one or more areas; electrical stimulation (unattended)
97016	Application of a modality to one or more areas; vasopneumatic devices
97018	Application of a modality to one or more areas; paraffin bath
97022	Application of a modality to one or more areas; whirlpool
97024	Application of modality to one or more areas; diathermy (e.g., microwave)
97026	Application of a modality to one or more areas; infrared
97028	Application of a modality to one or more areas; ultraviolet

97032	Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes
97033	Application of a modality to one or more areas; iontophoresis, each 15 minutes
97034	Application of a modality to one or more areas; contrast baths, each 15 minutes
97035	Application of a modality to one or more areas; ultrasound, each 15 minutes
97036	Application of a modality to one or more areas; Hubbard tank, each 15 minutes
97110	Therapeutic procedure, one or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility
97112	Therapeutic procedure, one or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities
97113	Therapeutic procedure, one or more areas, each 15 minutes; aquatic therapy with therapeutic exercises
97116	Therapeutic procedure, one or more areas, each 15 minutes; gait training (includes stair climbing)
97124	Therapeutic procedure, one or more areas, each 15 minutes; massage, including effleurage, petrissage and/or tapotement (stroking, compression, percussion)
97140	Manual therapy techniques (eg, mobilization/ manipulation, manual lymphatic drainage, manual traction), one or more regions, each 15 minutes
97530	Therapeutic activities, direct (one-on-one) patient contact by the provider (use of dynamic activities to improve functional performance), each 15 minutes
98940	Chiropractic manipulative treatment (CMT); spinal, one to two regions
98941	Chiropractic manipulative treatment (CMT); spinal, three to four regions
98942	Chiropractic manipulative treatment (CMT); spinal, five regions
98943	Chiropractic manipulative treatment (CMT); extraspinal, one or more regions

<b>ICD-9-CM Diagnosis Codes</b>	<b>Description</b>
722.0– 722.9	Intervertebral disc disorders
737.0– 737.9	Curvature of the spine
738.4	Acquired spondylolisthesis
738.5	Other acquired deformity of back or spine
739.0	Nonallopathic lesion of head region, not elsewhere classified
739.1	Nonallopathic lesion of cervical region, not elsewhere classified
739.2	Nonallopathic lesion of thoracic region, not elsewhere classified
739.3	Nonallopathic lesion of lumbar region, not elsewhere classified
739.4	Nonallopathic lesion of sacral region, not elsewhere classified
739.5	Nonallopathic lesion of pelvic region, not elsewhere classified
739.6	Nonallopathic lesion of lower extremity, not elsewhere classified
739.7	Nonallopathic lesion of upper extremities, not elsewhere classified
756.11	Congenital spondylolysis, lumbosacral region
839.00 – 839.08	Closed dislocation, cervical vertebra
839.10 – 839.18	Open dislocation, cervical vertebra
839.20 – 839.21	Closed dislocation, thoracic and lumbar vertebra
839.30 – 839.31	Open dislocation, thoracic and lumbar vertebra
839.41	Closed dislocation, coccyx
839.42	Closed dislocation, sacrum
839.51	Open dislocation, coccyx
839.52	Open dislocation, sacrum
839.8	Closed dislocation, multiple and ill-defined sites
	Multiple/Varied

**Not Medically Necessary/Not Covered:**

<b>HCPCS Codes</b>	<b>Description</b>
S8990	Physical or manipulative therapy performed for maintenance rather than restoration

**Experimental/Investigational/Unproven/Not Covered:**

<b>CPT* Codes</b>	<b>Description</b>
76499 <sup>†</sup>	Unlisted diagnostic radiographic procedure
97750 <sup>††</sup>	Physical performance test or measurement (eg, musculoskeletal, functional capacity), with written report, each 15 minutes
99090 <sup>††</sup>	Analysis of clinical data stored in computers (eg, ECGs, blood pressures, hematologic data)

<sup>†</sup>**Note: Experimental/ Investigational/ Unproven and Not Covered when used to represent radiograph digital mensuration, radiographic digitization, or computer-aided radiographic mensuration analysis (CRMA).**

<sup>††</sup>**Note: Experimental/ Investigational/Unproven and Not Covered when used to represent digital postural analysis.**

**\*Current Procedural Terminology (CPT<sup>®</sup>) © 2008 American Medical Association: Chicago, IL.**

**References**

1. Activator Methods, International Ltd. Activator Methods. © Copyright 1995-2002 Activator Methods. Accessed October 26, 2009. Available at URL address: <http://www.activator.com/actMethods.asp>
2. Agency for Healthcare Policy and Research (AHCPR). Chiropractic in the United States: training, practice and research. Publication No. 98-N002. 1997 Dec. Accessed October 26, 2009. Available at URL address: <http://www.chiroweb.com/archives/ahcpr/uschiros.htm>
3. American Chiropractic College of Radiology (ACCR). ACCR guideline on computer assisted mensuration for postural analysis of radiographs. 2004. Accessed October 26, 2009. Available at URL address: <http://www.accr.org/accrguidelinepage.htm>
4. American Association of Electrodiagnostic Medicine. Technology review: the use of surface EMG in the diagnosis and treatment of nerve and muscle disorders. Published in Muscle Nerve 1999;22(suppl 8):S239-S242. Accessed October 26, 2009. Available at URL address: [http://www.aanem.org/practiceissues/technologyreviews/use\\_surface\\_emg.cfm](http://www.aanem.org/practiceissues/technologyreviews/use_surface_emg.cfm)
5. American College of Occupational and Environmental Medicine; Glass LS, editor. Occupational medicine practice guidelines: evaluation and management of common health problems and functional recovery in workers. Pain, suffering and restoration of function. 2<sup>nd</sup> ed. Chapter 6.1997.
6. American College of Occupational and Environmental Medicine; Glass LS, editor. Occupational medicine practice guidelines: evaluation and management of common health problems and functional recovery in workers. Low back complaints. 2<sup>nd</sup> ed. Chapter 12.1997.
7. American College of Occupational and Environmental Medicine. Neck complaints. In: ACOEM Practice Guidelines Committee. Occupational medicine practice guidelines: evaluation and management of common health problems and functional recovery in workers. 2<sup>nd</sup> ed. 1997. p.11-1 to 11-17.

8. American College of Radiology (ACR). ACR Practice Guideline for Performing and Interpreting Diagnostic Ultrasound Examinations. Effective 10/01/2006. Accessed October 26, 2009. Available at URL address:  
[http://www.acr.org/SecondaryMainMenuCategories/quality\\_safety/guidelines/us/us\\_performing\\_interpreting.aspx](http://www.acr.org/SecondaryMainMenuCategories/quality_safety/guidelines/us/us_performing_interpreting.aspx)
9. American Institute of Ultrasound Medicine (AIUM). AIUM Practice Guideline for the Performance of Musculoskeletal Ultrasound Examination. © 2007 by the American Institute of Ultrasound Medicine. Effective October 1, 2007. Accessed October 26, 2009. Available at URL address:  
<http://www.aium.org/publications/guidelines/musculoskeletal.pdf>
10. American Institute of Ultrasound Medicine (AIUM). Nonoperative spinal/paraspinal ultrasound in adults. Approved June 2002. Accessed October 26, 2009. Available at URL address:  
<http://www.aium.org/publications/statements.aspx>
11. Assendelft WJJ, Morton SC, Yu Emily I, Suttorp MJ, Shekelle PG. Spinal manipulative therapy for low-back pain. The Cochrane Database of Systematic Reviews 2004, Issue 1. In: The Cochrane Library, Issue 4, 2007. Copyright © 2007 The Cochrane Collaboration.
12. Balon J, Aker PD, Crowther ER, Danielson C, Cox PG, O'Shaughnessy D, et al. A comparison of active and simulated chiropractic manipulation as adjunctive treatment for childhood asthma. *N Engl J Med*. 1998 Oct;339(15):1013-20.
13. Beazell JR, Magrum EM. Rehabilitation of head and neck injuries in the athlete. *Clin Sports Med*. 2003 Jul;22(3):523-57.
14. Breuner CC. Alternative and Complementary Therapies. *Adolesc Med Clin*. 2006 Oct;17(3):521-46.
15. Cherkin DC, Deyo RA, Battie M, Street J, Barlow W. A comparison of physical therapy, chiropractic manipulation, and provision of an educational booklet for the treatment of patients with low back pain. *N Engl J Med* 1998 Oct;339(15):1021-9.
16. Devereaux MW. Neck and low back pain. *Med Clin North Am*. 2003 May;87(3):643-62.
17. Eck JC, Hodges SD, Humphrey SC. Whiplash: a review of a commonly misunderstood injury. *Am J Med*. 2001 Jun;110(8):651-6.
18. ECRI Institute. Spinal manipulation for relief of nonspecific low back pain. Plymouth Meeting (PA): ECRI Institute Health Technology Assessment Information Service; 2008 August. (Evidence Report; No. 157). Available at URL address: <http://www.ecri.org>.
19. Evaluation of neck pain. In: Goroll A. Primary care medicine. 4<sup>th</sup> ed. Philadelphia, PA: Lippincott Williams & Wilkin; 2000. p. 846-7.
20. Everett CR, Patel RK. A systematic literature review of nonsurgical treatment in adult scoliosis. *Spine (Phila Pa 1976)*. 2007 Sep 1;32(19 Suppl):S130-4.
21. Fiechtner JJ, Brodeur RR. Manual and manipulation techniques for rheumatic disease. *Med Clin North Am*. 2002 Jan;86(1):91-103.
22. Gay RE, Bronfert G, Evans RL. Distraction manipulation of the lumbar spine: A review of the literature. *J Manipulative Physiol Ther*. 2005 May;28(4):266-73.
23. Gotlib A, Rupert R. Chiropractic manipulation in pediatric health conditions - an updated systematic review. *Chiropr Osteopat*. 2008 Sep 12;16:11.
24. Haas M, Group E, Kraemer DF. Dose-response for chiropractic care of chronic low back pain. *Spine J*. 2004 Sep-Oct;4(5):574-83.

25. Hondras MA, Linde K, Jones AP. Manual therapy for asthma. Manual therapy for asthma. Cochrane Database of Systematic Reviews 2005, Issue 2. Copyright © 2006 The Cochrane Collaboration.
26. Hurwitz EL, Morgenstern H, Kominski GF, Yu F, Chiang LM. A randomized trial of chiropractic and medical care for patients with low back pain: eighteen-month follow-up outcomes from the UCLA low back pain study. *Spine*. 2006 Mar 15;31(6):611-21; discussion 622.
27. Kapral MK, Bondy SJ. Cervical manipulation and risk of stroke. *CMAJ*. 2001 Oct;165(7):907-8.
28. Kijowski R, De Smet AA. The role of ultrasound in the evaluation of sports medicine injuries of the upper extremity. *Clin Sports Med*. 2006 Jul;25(3):569-90,viii.
29. Killinger LZ. Chiropractic and geriatrics: a review of the training, role, and scope of chiropractic in caring for aging patients. *Clin Geriatr Med*. 2004 May;20(2):223-35.
30. Knopp R, Parker J, Tashjian J, Ganz W. Defining radiographic criteria for flexion-extension studies of the cervical spine. *Ann Emerg Med*. 2001 Jul;38(1):31-5.
31. Kohlbeck FJ, Haldeman S. Technology assessment: medication assisted spinal manipulation. *Spine J*. 2002 Jul-Aug;2(4):288-302.
32. Lamm LC, Wegner E, Collord D. Chiropractic scope of practice: what the law allows. Update: 1993. *J Manipulative Physiol Ther*. 1995 Jan;18(1):16-20.
33. Marx JA, Hockberger RS, Walls RM. Rosen's emergency medicine: concepts and clinical practice. 5<sup>th</sup> ed. St. Louis, MO: Mosby, Inc.; 2002. p. 606-11.
34. Narayan P, Haid RW. Treatment degenerative cervical disc disease. *Neurol Clin*. 2001 Feb;19(1):217-29.
35. National Board of Chiropractic Examiners (NBCE). Professional Functions and Treatment Procedures. Ch 10. Job Analysis of Chiropractic 2005. Accessed October 26, 2009. Available at URL address: <http://www.nbce.org/publication/job-analysis.html>
36. Olafsdottir E, Forshei S, Fluge G, Markestad T. Randomised controlled trial of infantile colic treated with chiropractic spinal manipulation. *Arch Dis Child*. 2001 Feb;84(2):138-41.
37. Romano M, Negrini S. Manual therapy as a conservative treatment for adolescent idiopathic scoliosis: a systematic review. *Scoliosis*. 2008 Jan 22;3:2.
38. Rubinstein SM. Adverse events following chiropractic care for subjects with neck or low-back pain: do the benefits outweigh the risks? *J Manipulative Physiol Ther*. 2008 Jul-Aug;31(6):461-4.
39. Rubinstein SM, Leboeuf-Yde C, Knol DL, de Koekkoek TE, Pfeifle CE, van Tulder MW. The benefits outweigh the risks for patients undergoing chiropractic care for neck pain: a prospective, multicenter, cohort study. *J Manipulative Physiol Ther*. 2007 Jul-Aug;30(6):408-18.
40. Ruddy S, Harris E, Sledge C. Kelly's textbook of rheumatology. 6<sup>th</sup> ed. Philadelphia, PA: W.B Saunders; 2001. p. 457-73.
41. Shapiro BE, Preston DC. Entrapment and compressive neuropathies. *Med Clin North Am*. 2003 May;87(3):663-96, viii.
42. Sigma Instruments, Inc. AcuWave. Copyright © 1995-2005 Sigma Instruments, Inc. Accessed November 7, 2008. Available at URL address: <http://www.sigma-instruments.com/acuwave.html>

43. Taylor SH, Arnold ND, Biggs L, Colloca CJ, Mierau DR, Symons BP, Triano JJ. A review of the literature pertaining to the efficacy, safety, educational requirements, uses and usage of mechanical adjusting devices: Part 1 of 2. JCCA J Can Chiropr Assoc. 2004 Mar;48(1):74-108.
44. Taylor SH, Arnold ND, Biggs L, Colloca CJ, Mierau DR, Symons BP, Triano JJ. A review of the literature pertaining to the efficacy, safety, educational requirements, uses and usage of mechanical adjusting devices: Part 2 of 2. JCCA J Can Chiropr Assoc. 2004 Jun;48(2):152-61.
45. Troyanovich SJ, Harrison D, Harrison DD, Harrison SO, Janik T, Holland B. Chiropractic biophysics digitized radiographic mensuration analysis of the anteroposterior cervicothoracic view: a reliability study. J Manipulative Physiol Ther. 2000 Sep;23(7):476-82.
46. Vohra S, Johnston BC, Cramer K, Humphreys K. Adverse events associated with pediatric spinal manipulation: a systematic review. Pediatrics. 2007 Jan;119(1):e275-83. Epub 2006 Dec 18.
47. Zmurko MG, Tannoury TY, Tannoury CA, Anderson DG. Cervical sprains, disc herniations, minor fractures, and other cervical injuries in the athlete. Clin Sports Med, 2003 Jul;22(3):513.

## Policy History

<b>Pre-Merger Organizations</b>	<b>Last Review Date</b>	<b>Policy Number</b>	<b>Title</b>
CIGNA HealthCare	12/15/2007	0267	Chiropractic Care

“CIGNA” and the “Tree of Life” logo are registered service marks of CIGNA Intellectual Property, Inc., licensed for use by CIGNA Corporation and its operating subsidiaries. All products and services are provided exclusively by such operating subsidiaries and not by CIGNA Corporation. Such operating subsidiaries include Connecticut General Life Insurance Company, CIGNA Behavioral Health, Inc., Intracorp, and HMO or service company subsidiaries of CIGNA Health Corporation and CIGNA Dental Health, Inc. In Arizona, HMO plans are offered by CIGNA HealthCare of Arizona, Inc. In California, HMO plans are offered by CIGNA HealthCare of California, Inc. and Great-West Healthcare of California, Inc. In Connecticut, HMO plans are offered by CIGNA HealthCare of Connecticut, Inc. In North Carolina, HMO plans are offered by CIGNA HealthCare of North Carolina, Inc. In Virginia, HMO plans are offered by CIGNA HealthCare Mid-Atlantic, Inc. All other medical plans in these states are insured or administered by Connecticut General Life Insurance Company.

Connecticut General Life Insurance Company has acquired the business of Great-West Healthcare from Great-West Life & Annuity Insurance Company (GWLA). Certain products continue to be provided by GWLA (Life, Accident and Disability, and Excess Loss). GWLA is not licensed to do business in New York. In New York, these products are sold by GWLA’s subsidiary, First Great-West Life & Annuity Insurance Company, White Plains, N.Y.