

Clinical Practice Guideline: Upper Cervical Adjusting Techniques

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GUIDELINES

American Specialty Health – Specialty (ASH) considers upper cervical adjusting techniques as unproven when a practitioner uses this technique for the purpose of treating complaints unrelated to the cervical spine and/or when a practitioner relies solely on non-evidence based methods (e.g., x-rays to identify subluxations and/or line of correction, thermography) to confirm the subluxation's removal or assess outcomes because there is insufficient evidence in the literature to establish safety and clinical effectiveness.

For more information, see the *Techniques and Procedures Not Widely Supported as Evidence Based (CPG 133 - S)* clinical practice guideline.

ASH considers adjusting upper cervical vertebrae to treat chief complaints unrelated to the cervical spine (e.g., lumbar pain) as unproven because there is insufficient evidence in the literature to establish clinical effectiveness.

ASH considers the use of a high-velocity, low-amplitude (HVLA) thrust adjusting technique by itself, when practiced as part of an upper cervical protocol, as medically necessary when the use of that technique:

- Does not require x-rays to identify subluxation/misalignment, to determine line of adjustment/correction, or to confirm effectiveness of the adjustment;
- Is not for the purpose of treating complaints unrelated to the cervical spine; and
- Does not rely on non-evidence-based methods to confirm the subluxation's removal or assess outcomes.

DESCRIPTION/BACKGROUND

Examples of upper cervical adjusting techniques included within this review are Atlas Orthogonal, Blair Upper Cervical, Grostic, National Upper Cervical Chiropractic Association (NUCCA), Orthospinology, and Palmer Upper Cervical/Hole in One (HIO) techniques. The primary focus of upper cervical practitioners is the correction of the atlas or axis subluxation. According to the National Awareness Campaign for Upper Cervical Care (NACUCC), upper cervical adjustments correct the position of the top vertebrae of the spine, the atlas, and/or axis. Proponents theorize that correcting the tilt, shift, or rotation of these vertebrae enables the body to more effectively overcome or completely eliminate many different conditions.

Upper cervical practitioners believe two consequences can result if upper cervical vertebrae are malpositioned. The first is body imbalance — upper cervical practitioners posit that when the atlas and/or axis are out of alignment, the head moves off center of the body, creating an imbalance from head to toe. The second adverse effect is restriction or distortion of brain messages to different parts of the body.

Upper cervical technique proponents believe that by correcting the atlas/axis, all other spinal subluxation will self-correct. Many of these techniques involve a supine leg length check, x-ray analysis, and/or thermography to verify their atlas/axis correction. However, the method for determining the correct vector or line of adjustment relies heavily on x-ray analysis. This includes both initial baseline views and, in many cases, follow-up or post treatment views to evaluate progress. The most common x-rays taken by upper cervical practitioners include Lateral Cervical, Nasium, Base Posterior or Vertex, and Anterior-Posterior Cervical Open Mouth (APOM).

EVIDENCE REVIEW

Each of the upper cervical techniques listed above has a technique manual and other published materials describing the technique and its theoretical rationale. Rochester (2009) described a retrospective case series of neck pain and disability outcomes following a chiropractic upper cervical low force technique (UCLF). The author suggested that based on the retrospective review, UCLF chiropractic instrument adjustments utilizing a vertebral alignment model are promising for the management of cervical pain. Eriksen et al. (2011) studied adverse events following spinal adjustments using upper cervical techniques, and the impact of this care on clinical outcomes. A total of 1,090 patients completed the study having 4,920 (4.5 per patient) office visits requiring 2,653 (2.4 per patient) upper cervical adjustments over 17 days. Thirty-one percent (31%) of patients had symptomatic reactions that met the accepted definition. Intense symptomatic reactions occurred in 5.1% of that population. Outcome assessments were significantly improved for neck pain and disability, headache, mid-back pain, as well as lower back pain and disability ($p < 0.001$) following care with a high level (mean = 9.1/10) of patient satisfaction. The 83 chiropractors administered >5 million career upper cervical adjustments without a reported incidence of serious adverse event. Authors concluded that upper cervical chiropractic care may have a fairly common occurrence of mild intensity symptomatic reactions that are short in duration. They also stated that outcome assessments were significantly improved with high patient satisfaction with less than 3 weeks of care. Authors stated that although findings need to be confirmed the preliminary data show benefit over potential risks regarding upper cervical chiropractic care. Woodfield et al. (2015) presented a narrative review of upper cervical procedures intended to facilitate understanding and increase knowledge. Authors report that these techniques share the same theoretical basis and assessment as other cervical techniques, but the major difference involves their use of either an articular or orthogonal radiograph analysis model when determining the presence of a misalignment. Adverse events following an upper cervical adjustment consist of mild

symptomatic reactions of short-duration (< 24-hours). However, due to a lack of quality and indexed references, information reported is limited by the significance of literature cited, which included only non-indexed and/or non-peer reviewed sources.

Based on the review conducted, ASH is unable to draw conclusions due to the paucity of high-quality published studies on the effectiveness of these techniques.

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training, and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a patient only if they are trained, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the patient to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a member's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is prudent for the practitioner to refer the member for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practice guideline for information.

References

Addington EA. Overview of Blair cervical technique. Prepared for Council on Chiropractic Practice. (1995, October). Retrieved August 1, 2025, from <http://www.chiro.org/LINKS/ABSTRACTS/blair.shtml>

Cooperstein, R, Gleberzon, B. Chiropractic system techniques: upper cervical technique. In *Technique systems in chiropractic*. Churchill Livingstone; 2004:263-276

- 1 Eriksen K, Rochester RP, Hurwitz EL. Symptomatic reactions, clinical outcomes and
2 patient satisfaction associated with upper cervical chiropractic care: a prospective,
3 multicenter, cohort study. *BMC Musculoskelet Disord.* 2011;12:219. Published 2011
4 Oct 5. doi:10.1186/1471-2474-12-219
- 5
- 6 Eriksen K. Review of Studies on the Validity of Upper Cervical Chiropractic Care.
7 Retrieved on August 1, 2025 from [https://musculoskeletalkey.com/review-of-studies-](https://musculoskeletalkey.com/review-of-studies-on-the-validity-of-upper-cervical-chiropractic-care/#R21-21)
8 [on-the-validity-of-upper-cervical-chiropractic-care/#R21-21](https://musculoskeletalkey.com/review-of-studies-on-the-validity-of-upper-cervical-chiropractic-care/#R21-21)
- 9
- 10 Jenkins HJ, Downie AS, Moore CS, French SD. Current evidence for spinal X-ray use in
11 the chiropractic profession: a narrative review. *Chiropr Man Therap.* 2018;26:48.
12 Published 2018 Nov 21. doi:10.1186/s12998-018-0217-8
- 13
- 14 Joint Commission International. (2020). Joint Commission International Accreditation
15 Standards for Hospitals (7th ed.) Joint Commission Resources
- 16
- 17 Nansel DD, Waldorf T, Cooperstein R. Effect of cervical spinal adjustments on lumbar
18 paraspinal muscle tone: evidence for facilitation of intersegmental tonic neck
19 reflexes. *J Manipulative Physiol Ther.* 1993;16(2):91-95
- 20
- 21 Oliverio AB. A review of the literature: adjusting only the cervical spine and its effect on
22 low back pain. *Chiropractic Research Journal.* 1994;3(1): 3-6
- 23
- 24 Rochester RP. Neck pain and disability outcomes following chiropractic upper cervical
25 care: a retrospective case series. *J Can Chiropr Assoc.* 2009;53(3):173-185
- 26
- 27 Schultz G, Bassano J. Is radiography appropriate for detecting subluxations? In Mootz, R.,
28 & Hansen, D., (Eds.), *Chiropractic technologies.* Gaithersburg, MD: Aspen
29 Publishers;1999
- 30
- 31 Woodfield HC 3rd, York C, Rochester RP, et al. Craniocervical chiropractic procedures -
32 a précis of upper cervical chiropractic. *J Can Chiropr Assoc.* 2015;59(2):173-192
- 33
- 34 Young KJ. Evaluation of publicly available documents to trace chiropractic technique
35 systems that advocate radiography for subluxation analysis: a proposed genealogy. *J*
36 *Chiropr Humanit.* 2014;21(1):1-24. Published 2014 Oct 11.
37 doi:10.1016/j.echu.2014.09.001