

1 **Clinical Practice Guideline: CranioSacral Therapy (CST)**

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3 **Date of Implementation: February 9, 2006**

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5 **Product: Specialty**

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8 **GUIDELINES**

9 ASH considers CranioSacral Therapy (CST) to be unproven due to insufficient scientific
10 evidence. There may be some risk of substitution harm or labeling effects if used to the
11 exclusion of more established therapeutic or diagnostic procedures with known clinical
12 effectiveness or diagnostic utility.

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14 Patients must be informed verbally and in writing of the nature of any procedure or
15 treatment technique that is considered experimental/investigational or unproven, poses a
16 significant health and safety risk, and/or is scientifically implausible. If the patient decides
17 to receive such services, they must sign a Member Billing Acknowledgment Form (for
18 Medicare use Advance Beneficiary Notice of Non-Coverage form) indicating they
19 understand they are assuming financial responsibility for any service-related fees. Further,
20 the patient must sign an attestation indicating that they understand what is known and
21 unknown about, and the possible risks associated with such techniques prior to receiving
22 these services. All procedures, including those considered here, must be documented in the
23 medical record. Finally, prior to using experimental/investigational or unproven
24 procedures, those that pose a significant health and safety risk, and/or those considered
25 scientifically implausible, it is incumbent on the practitioner to confirm that their
26 professional liability insurance covers the use of these techniques or procedures in the event
27 of an adverse outcome.

28

29 **BACKGROUND/DESCRIPTION**

30 CranioSacral Therapy (CST) has been described as a manual method of evaluating and
31 enhancing the functioning of a proposed physiological body system called the “craniosacral
32 system (CSS),” which is comprised of the membranes and cerebrospinal fluid that surround
33 and protect the brain and spinal cord.

34

35 CST advocates believe this system influences the entire body by affecting the brain and
36 spinal cord as well as the pituitary and pineal glands. As such, the CSS serves as a core
37 function in that the entire body’s health depends on its well-being. Practitioners claim CST
38 can treat a wide range of disorders and physical disabilities, including spinal cord injuries.

39

40 CST began as an osteopathic technique. This therapy is said to work with the rhythm and
41 flow of the cerebrospinal fluid as it pulses through the system at a rate of about 10 cycles
42 per minute. The fluid barrier of the CSS is the dura mater, which also composes the interior

1 lining of the skull. The membrane is also attached to the upper neck vertebrae, the lower
2 back sacrum, the tailbone, and the openings in the spinal column where nerves exit. The
3 skull bones are believed to continuously move in a subtle manner to accommodate fluid
4 pressure changes within this system. Anything that interferes with the membrane’s ability
5 to accommodate the rhythmically fluctuating fluid pressures and volumes is thought to be
6 a potential cause of illness.

7
8 CST’s purpose is to find areas of restricted movement that compromise function and re-
9 establish normal movement. During treatment, a trained CST therapist uses a light touch
10 to feel the rhythmic motion of the cerebrospinal fluid within the CSS. The therapist checks
11 the rate, amplitude, symmetry, and quality of this subtle wave-like motion in places where
12 the craniosacral membrane barrier attaches to bones such as the skull, sacrum, and tailbone.
13 Any restrictions or blockages are treated with light-touch adjustments. These gentle
14 corrections are said to assist the hydraulic forces in the CSS and improve the central
15 nervous system functioning, which is believed to facilitate the body’s innate self-healing
16 mechanisms.

17 **EVIDENCE REVIEW**

18
19 Cooperstein and Gleberzon (2004) reported on studies with the research objective of
20 providing direct evidence of an association between craniosacral dysfunction and poor
21 health outcomes. They observed a few studies with design flaws and that the literature
22 reviewed was not of the highest quality based on the hierarchy of evidence. Green et al.
23 (1999) concluded that there is no “significant strength of association, experimental
24 confirmation, specificity of relationship and/or consistency of observed evidence” between
25 craniosacral dysfunction and health in their systematic review and critical appraisal.
26 Research methods that could conclusively evaluate effectiveness have not been applied to
27 date.

28
29 Controversy about cranial bone motion affects the general acceptance of some intervention
30 methods such as cranial osteopathic and CST techniques. Core to these intervention
31 techniques is the belief that cranial bone mobility provides a compliant system where
32 somatic dysfunction can occur and therapeutic techniques can be applied. Diversity of
33 opinion over the truth of this concept characterizes differing viewpoints on the anatomy
34 and physiology of the cranial complex. Literature on cranial bone motion was reviewed for
35 the purpose of better understanding this topic. Published research overall was scant and
36 inconclusive.

37
38 A small “within-subjects, repeated-measures” study by Moran and Gibbons (2001) failed
39 to support the construct validity of the “core-link” hypothesis as it is traditionally held by
40 proponents of CST and osteopathy in the cranial field. A 2012 systematic review by Jäkel
41 and von Hauenschild concluded that given the paucity of high-quality research, further
42 research is needed.

1 Little and Pennick (2015) completed a Cochrane review on interventions for preventing
2 and treating low back pain and pelvic pain during pregnancy. Thirty-four RCTs examining
3 5,121 pregnant women, aged 16 to 45 years and, when reported, from 12 to 38 weeks'
4 gestation were included. Fifteen RCTs examined women with low-back pain (participants
5 = 1,847); six examined pelvic pain (participants = 889); and 13 examined women with both
6 low-back and pelvic pain (participants = 2,385). Two studies also investigated low-back
7 pain prevention and four, low-back and pelvic pain prevention. Diagnoses ranged from
8 self-reported symptoms to clinicians' interpretation of specific tests. All interventions were
9 added to usual prenatal care and, unless noted, were compared with usual prenatal care.
10 The results from a number of individual studies, incorporating various other interventions,
11 could not be pooled due to clinical heterogeneity. There was moderate-quality evidence
12 (study design limitations or imprecision) from individual studies suggesting that
13 osteomanipulative therapy significantly reduced low-back pain and functional disability,
14 and acupuncture or craniosacral therapy improved pelvic pain more than usual prenatal
15 care.

16
17 Haller et al. (2016) completed a randomized sham-controlled trial on CST for treatment of
18 chronic neck pain. Fifty-four blinded patients were randomized to either 8 weekly units of
19 CST or light touch sham treatment. Outcomes were assessed before and after treatment at
20 week 8 and week 20. The primary outcome was pain intensity on a visual analogue scale;
21 secondary outcomes included pain on movement, pressure pain sensitivity, functional
22 disability, health-related quality of life, well-being, anxiety, depression, stress perception,
23 pain acceptance, body awareness, patients' global impression of improvement and safety.
24 In comparison to sham, CST patients reported significant and clinically relevant effects on
25 pain intensity at weeks 8 and 20. Minimal clinically important differences in pain intensity
26 at week 20 were reported by 78% of the CST patients, while 48% even had substantial
27 clinical benefit. Significant differences at weeks 8 and 20 were also found for pain on
28 movement, functional disability, physical quality of life and patients' global improvement.
29 Pressure pain sensitivity and body awareness were significantly improved only at week 8;
30 anxiety only at week 20. No serious adverse events were reported. Authors conclude that
31 CST was both specifically effective and safe in reducing neck pain intensity and may
32 improve functional disability and quality of life up to 3 months post intervention. The study
33 stated that “Further studies with strict methodological designs and long-term follow-ups
34 are needed to confirm CST efficacy in neck pain treatment.”

35
36 Haller et al. (2019) systematically assessed the evidence of Craniosacral Therapy (CST)
37 for the treatment of chronic pain. Ten RCTs of 681 patients with neck and back pain,
38 migraine, headache, fibromyalgia, epicondylitis, and pelvic girdle pain were included. In
39 comparison to the usual treatment, this meta-analysis found significant small to medium
40 size pooled effects of CST directly after the end of the intervention for: pain intensity,
41 functional disability, and physical quality of life, which were however based mainly on one
42 RCT for patients with pelvic girdle pain. At six months, CST showed greater positive

1 effects on pain intensity and disability versus sham. Five of the 10 RCTs reported safety
 2 data. No serious adverse events occurred. Minor adverse events were equally distributed
 3 between the groups. In patients with chronic pain, this meta-analysis suggests significant
 4 and robust effects of CST on pain and function lasting up to six months. More RCTs strictly
 5 following CONSORT are needed to further corroborate the effects and safety of CST on
 6 chronic pain. A major limitation is the small number of studies included in the meta-
 7 analysis. Conclusions drawn, especially those from analyses that included only 2 RCTs,
 8 remain preliminary.

9
 10 Muñoz-Gómez et al. (2022) evaluated the effectiveness of a craniosacral therapy protocol
 11 on different features in migraine patients. Fifty individuals with migraine were randomly
 12 divided into two groups (n = 25 per group): (i) craniosacral therapy group (CTG), following
 13 a craniosacral therapy protocol, and (ii) sham control group (SCG), with a sham treatment.
 14 The analyzed variables were pain, migraine severity and frequency of episodes, functional,
 15 emotional, and overall disability, medication intake, and self-reported perceived changes,
 16 at baseline, after a 4 week intervention, and at 8 week follow-up. After the intervention,
 17 the CTG significantly reduced pain (p = 0.01), frequency of episodes (p = 0.001),
 18 functional (p = 0.001) and overall disability (p = 0.02), and medication intake (p = 0.01),
 19 as well as led to a significantly higher self-reported perception of change (p = 0.01), when
 20 compared to SCG. In addition, the results were maintained at follow-up evaluation in all
 21 variables. Authors concluded that this protocol based on craniosacral therapy is effective
 22 in improving pain, frequency of episodes, functional and overall disability, and medication
 23 intake in migraineurs. This protocol may be considered as a therapeutic approach in
 24 migraine patients.

25
 26 Buffone et al. (2022) evaluated the effectiveness of osteopathic manipulative treatment
 27 (OMT) for gastrointestinal disorders in term and preterm infants in a systematic review and
 28 meta-analysis. Nine articles met the eligibility criteria, investigating OMT compared with
 29 no intervention, five involving term infants, and the remaining treating preterm infants. In
 30 the meta-analysis, two studies were included to analyze the hours of crying due to infantile
 31 colic, showing statistically significant results. The quality of evidence was “moderate”.
 32 The other outcomes, such as time to oral feeding, meconium excretion, weight gain, and
 33 sucking, were presented in a qualitative synthesis. OMT was substantially safe, and showed
 34 efficacy in some cases, but the conflicting evidence and lack of high-quality replication
 35 studies prevent generalization. High-quality RCTs are recommended to produce better-
 36 quality evidence.

37 38 **References**

39 Bordoni B, Walkowski S, Ducoux B, Tobbi F. (2020) The Cranial Bowl in the New
 40 Millennium and Sutherland's Legacy for Osteopathic Medicine: Part 1. *Cureus*, 12(9),
 41 e10410. doi: 10.7759/cureus.10410.

- 1 Bordoni B, Walkowski S, Ducoux B, Tobbi F. (2020) The Cranial Bowl in the New
2 Millennium and Sutherland's Legacy for Osteopathic Medicine: Part 2. *Cureus*. 12(9),
3 e10435. doi: 10.7759/cureus.10435
4
- 5 Buffone F, Monacis D, Tarantino AG, et al. Osteopathic Treatment for Gastrointestinal
6 Disorders in Term and Preterm Infants: A Systematic Review and Meta-Analysis.
7 *Healthcare (Basel)*. 2022;10(8):1525. Published 2022 Aug 12.
8 Doi:10.3390/healthcare10081525
9
- 10 Cooperstein, R., & Gleberzon, B. (2004). *Technique systems in chiropractic*. London:
11 Churchill Livingstone
12
- 13 CranioSacral therapy. (2004). Retrieved September 1, 2023, from
14 <http://upledger.com/therapies/index.php>
15
- 16 Fernández-de-Las-Penas, C., Alonso-Blanco, C., Cuadrado, M. L., Miangolarra, J. C.,
17 Barriga, F. J., & Pareja, J. A. (2006). Are manual therapies effective in reducing pain
18 from tension-type headache?: A systematic review. *Clinical Journal of Pain*, 22(3),
19 278-285
20
- 21 Froehle, R. M. (1996). Ear infection: A retrospective study examining improvement from
22 chiropractic care and analyzing for influencing factors. *Journal of Manipulative and*
23 *Physiological Therapies*, 19(3), 169-177
24
- 25 Green, C., Martin, C. W., Bassett, K., & Kazanjian, A. (1999). A systematic review of
26 craniosacral therapy: Biological plausibility, assessment reliability and clinical
27 effectiveness. *Complementary Therapies in Medicine*, 7(4), 204-207
28
- 29 Haller, H., Lauche, R., Cramer, H., Rampp, T., Saha, F. J., Ostermann, T., & Dobos, G.
30 (2016). Craniosacral Therapy for the Treatment of Chronic Neck Pain: A
31 Randomized Sham-controlled Trial. *The Clinical journal of pain*, 32(5), 441–449.
32 <https://doi.org/10.1097/AJP.0000000000000290>
33
- 34 Haller, H., Lauche, R., Sundberg, T., Dobos, G., & Cramer, H. (2019). Craniosacral
35 therapy for chronic pain: a systematic review and meta-analysis of randomized
36 controlled trials. *BMC musculoskeletal disorders*, 21(1), 1.
37 <https://doi.org/10.1186/s12891-019-3017-y>
38
- 39 Hartman, S. E., & Norton, J. M. (2002). Interexaminer reliability and cranial osteopathy.
40 *The Scientific Review of Alternative Medicine*, 6(1), 23-34

- 1 Jäkel, A., & von Hauenschild, P. (2012). A systematic review to evaluate the clinical
2 benefits of craniosacral therapy. *Complementary therapies in medicine*, 20(6), 456–
3 465. <https://doi.org/10.1016/j.ctim.2012.07.009>
4
- 5 Johnson, L. (1998). *Craniosacral therapy*. Retrieved September 1, 2023, from
6 http://www.healingtherapies.info/craniosacral_therapy.htm
7
- 8 Liddle, S. D., & Pennick, V. (2015). Interventions for preventing and treating low-back
9 and pelvic pain during pregnancy. *The Cochrane database of systematic*
10 *reviews*, 2015(9), CD001139. <https://doi.org/10.1002/14651858.CD001139.pub4>
11
- 12 Lou, L. (2000). Uncommon areas of electrical stimulation for pain relief. *Current Reviews*
13 *of Pain*, 4(5), 407-412
14
- 15 Mehl-Madrona, L., Kligler, B., Silverman, S., Lynton, H., & Merrell, W. (2007). The
16 impact of acupuncture and craniosacral therapy interventions on clinical outcomes in
17 adults with asthma. *Explore*, 3(1), 28-36
18
- 19 Moran, R. W., & Gibbons, P. (2001). Intraexaminer and interexaminer reliability for
20 palpation of the cranial rhythmic impulse at the head and sacrum. *Journal of*
21 *Manipulative and Physiological Therapeutics*, 24(3), 183-190
22
- 23 Muñoz-Gómez E, Inglés M, Aguilar-Rodríguez M, et al. Effect of a Craniosacral Therapy
24 Protocol in People with Migraine: A Randomized Controlled Trial. *J Clin Med*.
25 2022;11(3):759. Published 2022 Jan 30. doi:10.3390/jcm11030759
26
- 27 Rogers, J. S., & Witt, P. L. (1997). The controversy of cranial bone motion. *Journal of*
28 *Orthopaedic & Sports Physical Therapy*, 26(2), 95-103
29
- 30 Ventegodt, S., Merrick, J., Andersen, N. J., & Bendix, T. (2004). A combination of
31 gestalt therapy, Rosen body work, and cranio sacral therapy did not help in chronic
32 whiplash-association disorders (WAD): Results of a randomized clinical trial.
33 *Scientific World Journal*, 10(4), 1055-1068