

Headache

This page only includes articles published in the last 5 years.

In an update of the Bone and Joint Decade Task Force on Neck Pain and its Associated Disorders, the authors examined the effectiveness of conservative interventions for the management of headaches associated with neck pain.¹ They concluded that all management should include exercises. For cervicogenic headache, manual therapy may benefit. Relaxation training combined with stress-coping therapy or multimodal care (mobilization, exercise, postural correction) should be considered for chronic tension-type headache.

Tension-type headache (TTH)

A 2015 meta-analysis evaluated the efficacy of manual therapy (MT) involving spinal manipulative therapy (SMT)/mobilization, soft tissue therapy or exercise or a combination of these compared to pharmacological drugs for the treatment of TTH.² MT was shown to be more effective in reducing headache frequency and intensity immediately following treatment. Additionally, MT provided a statistically significant reduction in the number of headache days per month as well as number of hours per day with a headache vs. medication. However, at long-term follow-up (24 weeks), there were no differences between the treatments on headache intensity. The results of this meta-analysis found a moderate effect size supporting MT and suggest that it is more effective than medication in the short-term for patients with TTH. A 2012 review of SMT for TTH found favorable results for the treatment, but could not pool data due to the statistical and clinical heterogeneity of the included studies.³

A 2014 systematic review found that, although evidence was not sufficient to make a strong recommendation, it does suggest that manual therapy is beneficial for patients with TTH.⁴ Another 2014 systematic review of randomized controlled trials (RCT) concluded that manual therapy (soft tissue therapy, exercises, stretching, TENS, postural correction and mobilization) for the treatment of chronic TTH was equal in efficacy to that of prophylactic medication with tricyclic antidepressant post-treatment and at 6-month follow-up.⁵

Recent results of RCTs:

- Post hoc analysis revealed statistically and clinically significant reductions in headache frequency (>40% reduction) applying SMT to the cervical and upper thoracic spine as well as mobilizations, soft tissue therapy or postural exercises for a 5-week treatment period.⁶
- Both a 6-week program of massage therapy directed to trigger points in upper trapezius, suboccipital and sternocleidomastoid musculature and a program of placebo treatment (detuned ultrasound) were effective in reducing episodic and chronic headache frequency. However, pressure-pain thresholds of trigger points in the upper trapezius and suboccipital muscles increased in patients who received massage but did not change in the placebo group.⁷
- Manipulation of the occiput, atlas and axis was effective for reducing severity, frequency, and functional and emotional features of disability related to TTH.⁸
- Perception of headache pain improved significantly in a MT group, manipulative therapy group and a combined MT and manipulation group, with manipulation showing greatest treatment

effect. The manipulation and combination treatments were effective in reducing frequency and intensity. The frequency of headaches was significantly reduced through the end of the study in the combined group. Although intensity improved in the manipulation and combined groups, the control group also showed improved intensity at treatment conclusion and at follow-up.⁹

Cervicogenic headache (CH)

A 2016 literature review evaluated the effectiveness of MT (including SMT) on the cervical spine.¹⁰ Results suggested mobilization or manipulation of the cervical spine may benefit patients with cervicogenic headache, but heterogeneity of the studies made it difficult to synthesize the evidence.

A 2013 review was conducted assessing the effectiveness of various non-invasive interventions (including MT or exercise) for CH.¹¹ After calculating effect sizes and reviewing all results, the authors concluded that using a combination of cervical manipulation, mobilization and exercise may be the most effective at providing improvements in headache intensity, frequency and in neck pain.

A 2012 review concluded that results were difficult to evaluate due to only 1 study incorporating a control group, but SMT may be an effective treatment for cervicogenic headache.¹²

Mixed type

A 2016 literature review assessed the evidence for PT interventions for TTH, CH, and migraine.¹³ The authors reported that PT interventions statistically significantly improved the intensity of TTH and CH, the frequency of CH and the duration of migraine and CH. Additionally, MT showed significant benefit in the reduction of TTH frequency and duration and for all outcomes in CH; trigger point therapy reduced the intensity of TTH and CH; combined physical and psychological therapies with aerobic exercise reduced the duration of migraine.

A 2014 systematic review found that SMT and/or mobilization is effective for CH (and migraine) in adults.¹⁴

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