

Fascial Tension Headaches by Dr. Warren I. Hammer

[Tension-type headache](#) (TTH) is the most common form of primary headache in the general population and like all headache complaints, requires an adequate case history to exclude other possible causes falling under the headings of cervicogenic, vascular migraine or cluster-type; organic vascular types such as subarachnoid hemorrhage, subdural hematoma, arterial hypertension, intracranial neoplasm, meningitis and infection; allergic substances; metabolic disorders; and extracranial causes such as the teeth and TMJ, among many others.¹

Tension-type headache is essentially defined as a bilateral headache of a pressing or tightening quality without a known medical cause. A tension headache is generally a diffuse, mild to moderate pain that's often described as feeling like a tight band around the head or a big weight over the head or shoulders. It is seldom pulsating unless the pain is severe.²

A non-pulsating, pressing pain is the most common complaint plus tenderness of the scalp, especially in the temporal areas. Characteristics of TTH from the *International Classification of Headache Disorders* are:³

- Episodic infrequent: < 1 day per month; episodic frequent: 1-14 days; chronic: \geq 15 days.
- Headache lasting from 30 minutes to seven days in duration.
- At least two of the following pain characteristics: pressing / tightening (non-pulsating) quality; mild or moderate intensity (may inhibit, but does not prohibit activities); bilateral location; and no aggravation by walking stairs or similar routine physical activity.
- Both of the following: no nausea or vomiting (anorexia may occur); and photophobia and phonophobia are absent, or one but not the other is present.



Any headache that displays a worsening pattern should raise a red flag, as should a change in characteristics such as nausea or vomiting and abnormal neurological findings.²

Both pharmacological and nonpharmacological treatments such as electromyographic (EMG) biofeedback, cognitive-behavioral therapy, relaxation training, [trigger-point](#) therapy, physical therapy and acupuncture have produced symptomatic results.

Currently, I am helping to edit a new text on the fascial system based on the research of Carla Stecco, MD. The book represents years of research by her on the fascial system. Dr. Stecco, who recently presented at the recent International Fascial Conference in Vancouver, writes in her upcoming text: "A common cause of cephalalgia is excessive tension of the temporalis muscle. A large percentage of the muscular fibers of the temporalis insert into the underside of the deep temporal fascia that is in continuity with the epicranial fascia. If the temporalis muscle becomes hypertonic the epicranial fascia becomes overstretched. This could activate the free nerve endings in the fascia, resulting in headache-like symptoms."

Pericranial myofascial tenderness recorded by manual palpation is a significant abnormal finding in many patients with TTH⁴ and has been recorded by pressure pain detection and tolerances in cephalic and extracephalic locations with an electronic pressure algometer.⁵ In TTH, there are also found many myofascial trigger points. It is possible that sensitization of myofascial nociceptors could be responsible for pain.

Sensitization of pain pathways in the central nervous system due to prolonged nociceptive stimuli from pericranial myofascial tissues might be responsible for prolonged pain. Significantly lower pressure pain detection thresholds and tolerances were found in all the examined locations in patients with chronic tension-type headache with a muscular disorder compared to those without a muscular disorder.⁴ It appears that disruption of cranial fascia may be causative regarding tension headaches.

Soft-tissue techniques such as [fascial manipulation](#) reduce myofascial restrictive areas by restoring normal gliding of the deep fascia with the underlying muscular fibers. This is thought to restore normal sensory stimulation and can be an effective treatment for chronic tension headaches.⁶ This may also explain the effectiveness of other types of treatment that have a fascial effect, such as Graston, active release, structural integration, muscle energy and others.

It is therefore apparent that the fascial system must be considered in TTH, and also in other types of headaches such as migraine and cervicogenic types. Current evidence that spinal manipulation alleviates tension-type headaches is encouraging, but inconclusive due to the low quantity of available data preventing a firm conclusion.⁷

A tension headache is not considered a cervicogenic-type headache. Cervicogenic headache (CH) originates from disorders of the neck and is recognized as a referred pain in the head. Freese, et al.,⁸ summarize this type of headache as follows:

"Primary sensory afferents from the cervical roots C1-C3 converge with afferents from the occiput and trigeminal afferents on the same second-order neuron in the upper cervical spine. Consequently, the anatomical structures innervated by the cervical roots C1-C3 are potential sources of CH. In normal volunteers, the painful stimulation of different anatomical structures of the neck produced headache. In CH, particular structures have been selectively anesthetized in order to identify possible sources of pain. In summary, CH can originate from different muscles and ligaments of the neck, from intervertebral discs, and, particularly, from the atlanto-occipital, atlantoaxial, and C2/C3

zygapophyseal joints. Diagnosis of CH should adhere strictly to the published diagnostic criteria to avoid misdiagnosis and confusion with primary headache disorders such as migraine and tension type headache."

Cervicogenic headache as differentiated from TTH is usually a unilateral headache of fluctuating intensity increased by movement of the head and typically radiating from occipital to frontal regions.

Finally, sometimes it is difficult to differentiate common migraine from cervicogenic headaches since there are similar symptoms, such as being often unilateral and more common in females; but for cervicogenic there is usually a reduced range of neck motion or pain with external pressure over the greater occipital C2 nerve root and possible ipsilateral shoulder / arm pain. Typical migraine symptoms include nausea, vomiting, photophobia and phonophobia, which may occur in cervicogenic headache, but are not as common.⁹

References

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