Tension headache (TH) or “stress headache” is the most common type of headache occurring among adults, occurring twice as often in women as in men, and a leading health complaint. Exercise-related headaches are one of the most common medical problems affecting athletes, with up to 50% reporting headache as a regular consequence of athletic participation. A majority (72%) of these athletes report that neither trauma or concussion is the cause, and therefore, such headaches can be categorized as tension or migraine. Tension and migraine headaches are the most common types that athletes will experience, and the clinician needs to address both the cause and symptom(s).

**Evaluation and Treatment Options**

Any patient who reports a headache should receive a full neurologic examination to ascertain the etiology of the headache. For nontraumatic headaches, attention should be focused on the cervical spine as a potential source of the pain. TH can be distinguished from migraine headache by milder severity and longer duration and is generally described as a feeling of tightness or a band-like pressure felt around the back of the neck or the head or in the forehead region. The pain associated with TH is usually dull in nature and generally occurs on both sides of the head. Tight muscles in the neck, shoulders, upper back, and temporal regions, often accompanied by stress, may be an indication that myofacial trigger points (MTPs) are a cause of TH.

Treatment may include psychological counseling, manual therapy, physiologic intervention, and pharmaceutical treatment. An association between MTPs and TH has been identified, with treatment ameliorating or eliminating symptoms. MTPs in the upper trapezius, sternocleidomastoid (SCM), and temporalis muscles have been associated with greater intensity and duration of chronic TH, but not frequency. MTPs in the right temporalis muscles were associated with longer headache duration, whereas MTPs in the left temporalis muscles were associated with greater headache intensity. Latent MTPs may influence TH frequency. Pain that is referred from MTPs may relate to patient perception of headache and thus, they also need to be addressed by treatment. Acupressure can help to alleviate TH symptoms.

**Acupressure**

Proper administration of acupressure requires skill that is developed over time. The novice practitioner who is learning how to administer...
Acupressure techniques may provide symptom relief by simply massaging just one or two of three acupressure points: (a) Joining of the Valleys (LI4), (b) Gates of Consciousness (GB20), and (c) the temporal region. MTPs can also be identified in the bellies of muscles on the basis of four diagnostic criteria: (a) the existence of a palpable taut band, (b) the identification of a hypersensitive tender spot in the taut band, (c) a local twitch response elicited by manual snapping of the taut band, and (d) reproduction of the referred pain pattern of the TH in response to compression.

A key acupressure point that is used to treat many types of head or neck pain is located in the web space between the thumb and the first finger over the first dorsal interossei muscle (note that this point should not be treated in a pregnant patient, because it may produce uterine contractions that could be harmful to the unborn child). This acupressure point is called “Joining of the Valleys” (LI4). The easiest way to locate and massage this point is to squeeze the soft tissue in the web space, close to where the bones join in the hand (Figure 1). Patients may experience a sharp pain or a feeling of discomfort when this area is massaged. Press and hold the tissue, massage in small circles, or apply a pulsating pressure. All are effective treatment techniques, but each patient will respond differently to a given technique. Massage the area for one to two minutes or until the patient relates that the headache is lessening. Have the patient shut his or her eyes and slow down breathing while the acupressure massage is administered. Massage both hands.

A second set of acupressure points for the treatment of TH is located at the base of the skull between the origins of the SCM and trapezius muscles. These points are called the “Gates of Consciousness” (GB20). Massage of these points is particularly helpful for the treatment of tension headache pain that is located at the base of the head, in the neck, or behind the eyes. To find these points, place your thumbs in the depression between the origins of SCM and trapezius muscles (Figure 2). Your thumbs should slip into a small groove or indentation. Direct pressure upward toward the backs of the eyes, press and hold, or massage in very small circles. The patient may begin to breathe easier while these points are massaged, because they are also used for the treatment of sinus congestion. Treatment of these acupressure points can be performed with the patient in a seated, supine, or prone position. Patients may also administer self-treatments at these acupressure points.
An alternative method to apply pressure to the Gates of Consciousness that provides the patient with another self-care option is the use of two tennis balls in a sock (Figure 3). Tie the sock in a knot so that the balls cannot move. The patient should lie down on a firm surface and place the tennis balls at the base of the skull. The patient can also massage the Joining of the Valleys points while lying supine on the tennis balls. Remember to instruct the patient to relax and breathe slowly and deeply, which is referred to as diaphragmatic breathing.

The final set of points for treating TH are not considered traditional acupressure points, but they are typically “tender points” that may represent MTPs. MTPs are sensitive areas in muscle fascia that differ from acupressure points, because they do not directly correspond to meridians. Treatment of these points can reduce pain that is located in the forehead or the side of the head. Locate these points by pressing the center of the temporal region (Figure 4). The tip of the clinician’s finger should slip into a small indentation. Massage this area in small circles with firm pressure for one to two minutes or until the patient indicates that the headache has decreased. As with treatment of other acupressure points, it is beneficial to have the patient shut the eyes, relax, and slow down breathing.

A well-rounded approach to the treatment of TH includes acupressure massage, myofascial release techniques, postural evaluation/rehabilitation, relaxation exercises, deep breathing, and stress reduction. Patients may also seek pharmaceutical treatment, but the literature suggests that such treatment should be considered only if other treatments have failed to relieve symptoms. The patient should be referred to a physician if headache severity increases and whenever any neurologic symptoms are reported, such as vision changes, weakness, numbness or tingling, or loss of balance. Acupressure can provide an effective tool for management of TH symptoms, whether administered by a clinician or self-administered by the patient.

References
Incorporate functional progressions into rehabilitation programs

**Effective Functional Progressions in Sport Rehabilitation**

**Audiences:** Reference for physical therapists, athletic trainers, and other sports medicine and rehabilitation specialists; also a text for courses in sport rehabilitation curriculums.

*Effective Functional Progressions in Sport Rehabilitation* provides clinicians with the strategies and tools they need to prepare their clients for the physical demands required by their sport. This complete reference helps clinicians understand the important concepts of functional progressions and equips them to develop rehabilitation programs specific to the needs of their clients. The authors break down the text into three regional areas—upper extremities, lower extremities, and trunk—before delving into the specific anatomical and biomechanical differences within each area. They also present the neuromuscular basis for the specific approaches to each region and provide exercises in functional progressions that simulate the activity the athlete needs to perform to be effective in his or her sport again.

*Effective Functional Progressions in Sport Rehabilitation* also includes key code access to an online resource that allows users access to every image from the text as well as sample templates in both Microsoft Word and PowerPoint. Clinicians can use the images and Word template to create custom handouts for their clients and instructors can make custom presentations with the PowerPoint template. The images and sample templates are available at [www.HumanKinetics.com/EffectiveFunctionalProgressionsInSportRehabilitation](http://www.HumanKinetics.com/EffectiveFunctionalProgressionsInSportRehabilitation).


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