BY TIL LUCHAU

In the Advanced Myofascial Techniques training, our hands-on goal when working with migraines is to metaphorically "decompress" the bones of the cranium, which can provide both immediate pain relief and a reduction in headache frequency. *Image courtesy of 3DCranio. Used with permission.*

WORKING WITH HEADACHES, PART 3

Techniques for Migraines

Hands-on work can help migraines. Multiple studies substantiate this,[1] as does the anecdotal evidence we've witnessed in our private practices and in the stories we hear from our Advanced Myofascial Techniques seminar participants.

Even though the causes and mechanisms of migraine and cluster headaches are only partially understood (as discussed in Part 2 of this series, *Massage & Bodywork*, September/October 2010, page 108), we've found we're often able to relieve active and acute migraines and, in many cases, can reduce their frequency when chronic.

In Part 1 (*Massage & Bodywork*, July/August 2010, page 110) of this series, we looked at how tension and other musculoskeletal headaches are different from migraines. For more common musculoskeletal headaches, our main hands-on goal is to release any myofascial tension contributing to the head pain. This is also a useful way to start when working with migraines, especially since many migraines are comingled with myofascial restrictions (and can even be triggered by a tension headache). In the case of migraines, there is an additional step we can take. Once fascial restrictions have been released, our primary hands-on goal for working with vascular headaches becomes reducing cranial compression.

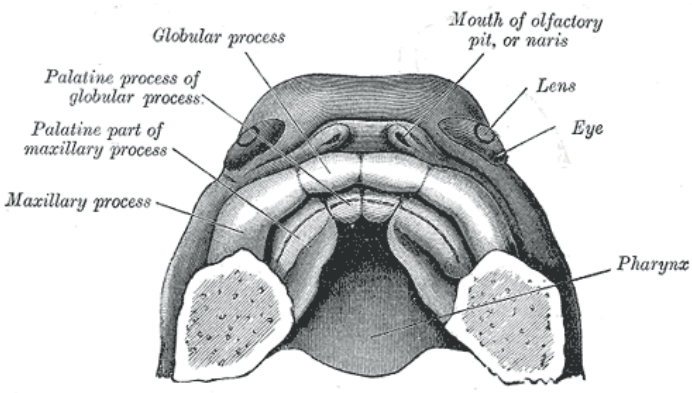
Palate technique. Feel through the maxilla from both inside and outside the mouth.

This empirical approach originates in my personal experience as an occasional migraine sufferer. During one of my own migraines, my clear sense was that relief from the crushing pain lay not in working on the outside of my head, but by getting inside my cranium itself and opening it outward from within.

I can't say if "reducing cranial compression" is solely a subjective metaphor, or if the techniques described here actually diminish cranial compression in an objectively verifiable way. However, in both my personal and clinical experience, these methods reliably and sometimes quite dramatically relieve many migraines if performed during an episode. Prevention is harder to quantify, but many clients (though not all) have reported reduced headache frequency and severity when regularly performing these techniques on themselves.

PALATE TECHNIQUE

If our aim when working with migraines is to decompress the cranium from the inside out, what better place to get inside the head than the palate? Not



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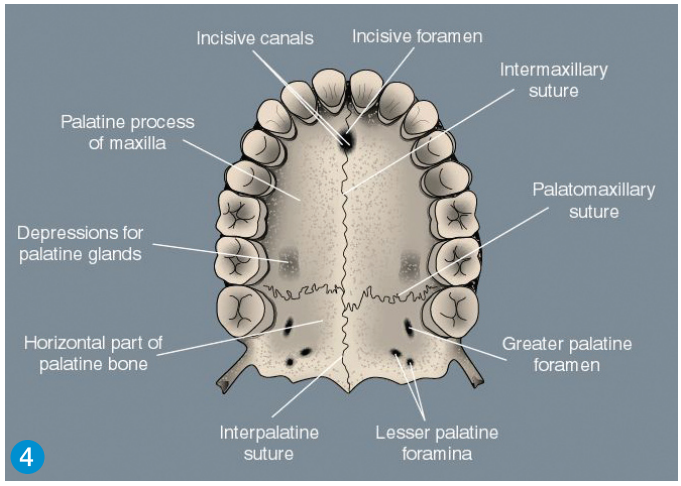
In the embryo, development of the maxilla and palatine bones closes the plate. A cleft palate results when this closure is incomplete. *Image from* Gray's Anatomy of the Human Body, *1918.*



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Conversely, a pronounced palatine raphe (an anterior/posterior ridge along the palate's intermaxillary and interpalatine midline sutures) may be a result of cranial crowding or narrowing of the palate. *Image courtesy of Primal Pictures. Used with permission.*

only is the hard palate the "keystone" of the cranium's interlocking bony structure, compression of the palate by braces or orthodontics seems to have at least an anecdotal relationship with migraines and comingled headaches.[2]

When working the palate, all customary considerations about intraoral work apply, of course. Be sure to explain the purpose for working inside the mouth to your client and get explicit permission before you do so. Practice sanitary procedures with glove disposal and hand washing, ask about latex sensitivity, and be familiar with any local or state scope-of-practice stipulations (some states require specific training or endorsement to be qualified to work within the mouth, and a small minority prohibit it outright).

To work the palate, use your gloved index finger inside the mouth, together with the thumb of the other hand outside, feeling the maxilla and palate between your two hands (Images 1 and 2). Use firm, static pressure to feel the shape and mobility or fixity of the bones that make up the palate. Don't slide around with your inner finger; instead, press, feel for a response, wait, and then release and move to the next spot.

Feel for unusual bony resilience (soft or hard areas, not to be mistaken for the nodules of the small glands on the posterior palate). Check in with your client (verbally and nonverbally) for feedback about any places that change the quality of the head pain. If your client is having a headache, there will usually be areas where pressure will relieve or change the pain. Wait in these places with steady pressure, encouraging your client to relax, breathe, and release. Although it can take several minutes in each spot, you can often diminish the headache's intensity and sometimes relieve it completely by being patient and methodical here—painstaking might be the right word.

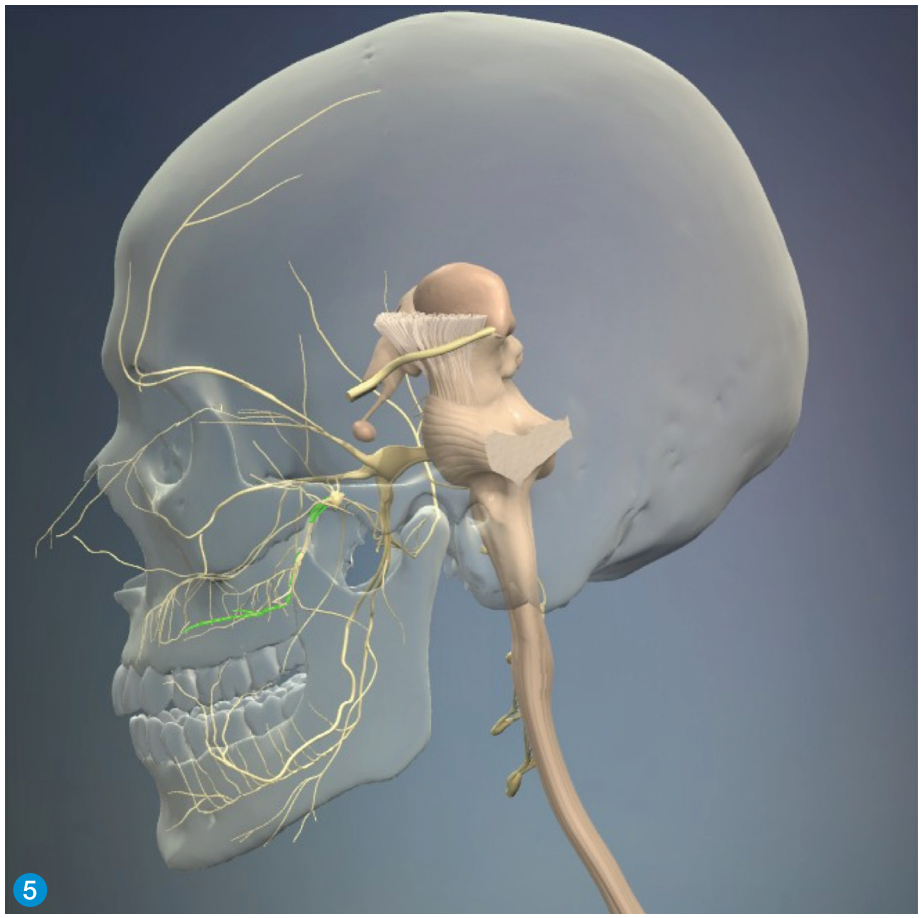
We aren't trying to release the soft tissue or myofascia on the palate; we're waiting for a change in bony mobility. Although subtle, this tangible yielding of bony resilience indicates suture release and an increase of osseous adaptability. Although your touch is receptive, this isn't the light touch of craniosacral work. Although skilled craniosacral work can be extraordinarily helpful for migraines, in this technique we use firm, tangible pressure and wait for a small, yet perceptible, yielding. The pacing of your pressure is slow and steady. Imagine pushing a boat away from a dock: at first, there is no movement, but as you lean and wait, the boat yields and begins to drift. At the risk of mixing metaphors, another way to describe what we're feeling for might be the tactile "give" of a nearly ripe avocado.

A pronounced palatine raphe (an anterior/posterior ridge along the palate's midline sutures, Image 4) can sometimes be a result of cranial crowding or narrowing of the palate. Using gentle but firm outward pressure, encourage widening and lateral release of the roof of the mouth.

A cleft palpate could be thought of as the opposite—a palate with too much decompression. In fetal development (Image 3), the bones of a cleft palate never met and closed along the centerline. Anecdotally, some people whose cleft palates have been repaired surgically report an increase in migraines, almost as if the closing of the palate was accomplished too tightly.

Why does mobilizing the bones of the palate so often reduce migraine pain? Perhaps it is through an effect

on the trigeminal nerve, which branches into the greater palatine and nasopalatine nerves above and below the palate (Image 5). Or perhaps the direct pressure is transmitted through the vertical vomer into the sphenoid bone and the cranial base, where the pituitary and hypothalamus sit (both of which may play a role in the neuro-electrical "brainstorm" of a migraine). Since much of the venous drainage of the cranial vault occurs through foramina in this area, we may help decrease intracranial pressure by opening the vascular "drains" of the vault. Whatever the reason it works, I am confident that you and your migraine clients will come to value this technique. Instruct your clients on how to perform it on themselves at the first sign of migraine.



Our metaphorical goal of decompressing the cranial bones may give relief to migraines by relieving pressure on the trigeminal nerve, shown here with the brainstem. One of the trigeminal's branches, the greater palatine nerve (green), may be the reason that work on the hard palate can often relieve migraine pain. *Image courtesy of Primal Pictures. Used with permission.*

EXTERNAL ACOUSTIC MEATUS TECHNIQUE

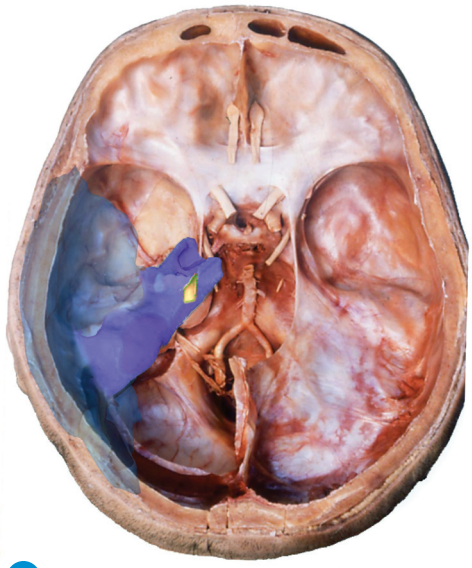
Since our intention with migraines is to decompress the relationship between the cranial bones, the ears are convenient handles for applying traction directly to the temporal bones. The external part of the ear (or auricle) has firm fascial attachments to the surface of the temporal bone, and the ear canal (or acoustic meatus) passes deep into the temporal's petrous portion (Image 6). The medial end of this petrous part cradles the trigeminal nerve where it emerges from the brainstem (the trigeminal nerve is likely involved in both migraines and cluster headaches). Aligned with the meatus and adjacent to it within the petrous portion of the temporal bone are the carotid canal and the internal carotid artery. These supply blood to the cerebral hemispheres, eyes, and forehead—areas where migraineurs and cluster headache sufferers are often most affected.

Holding both ears' conchae (the inner cartilaginous bowl around the opening of the ear) as in Image 7, apply sensitive but firm posterolateral traction. Use the ear canal to feel or imagine deep into the cranium. Ask your client about how much traction is comfortable; pull steadily, and wait for at least a few breaths. Try traction in slightly different directions and stay in close verbal communication about which variations most affect the headache's pain. Sometimes the smallest adjustments to angle, grip, and pull make a large difference to your client's experience.

Once you've found an angle that feels relevant to your client, simply hold the traction, imagining or feeling how the ear canals might actually connect with one another at a place a little anterior of the center of the head (which in one sense, they do, via their connective tissue linkages to the internal acoustic meatus and tentorium). Repeat this simple but profound release in a slightly different direction. Alternatively, you can grasp the tragus (the small external projection anterior to the opening of the ear canal) or the earlobes to feel into different parts of the ear canal. As with palate work, be patient and thorough, staying in constant verbal communication with your client to get the angle and amount of traction just right.

Freeing the temporal bones in this way can relieve both migraines and musculoskeletal headaches. Musculoskeletal headaches

YOU CAN SEE THESE TECHNIQUES IN *MASSAGE & BODYWORK'S* DIGITAL EDITION, WHICH FEATURES A VIDEO CLIP FROM ADVANCED-TRAININGS.COM'S ADVANCED MYOFASCIAL TECHNIQUES DVD AND SEMINAR SERIES. THE LINK IS AVAILABLE AT MASSAGEANDBODYWORK.COM AND ABMP.COM.



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The ears are effective handles for applying traction to the temporal bone (superimposed in blue). The temporal's petrous portion (medial, darker violet) houses the acoustic meatus and the internal carotid artery, which supplies the cerebral hemispheres, eyes, and forehead. Its medial end cradles the trigeminal nerve (yellow). *Source images courtesy of Primal Pictures. Used with permission.*

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With the External Acoustic Meatus Technique, use firm but gentle posterolateral traction with the external ear to feel deep into the fascial and osseous connections within the cranium. Active movement of the eyes and jaw can augment and broaden the release. *Image courtesy of Primal Pictures. Used with permission.*

respond especially well when you add active movement of the eyes and jaw to extend the release into these structures (Image 7).

DO GOOD WORK

It is always a good idea to have your client check with his or her physician when there are recurring, severe, or persistent headaches, even if you are able to relieve the pain with the methods described here. In almost all cases, headaches are uncomfortable but benign; however, they can be a sign of other problems and a medical doctor should rule these out, just to be safe.

Although hands-on work can provide welcome relief for migraine and cluster headache sufferers, it is wise to be optimistically balanced in our expectations about completely "curing" migraines. Migraines are complicated and seem to have multiple causes. Although I have had very good luck at relieving acute migraine pain in my practice (perhaps 90 percent), the percentage of clients who have reported an overall improvement in frequency or severity is somewhat lower than that (perhaps two-thirds have reported less frequent migraines, although I suspect this percentage could have been higher if we'd been able to do more frequent work together). Regularity seems to be an important key: the two studies cited in note 1 below, both employed regular, repeated sessions, and both found that this helped reduce migraine frequency, as well as provided other benefits such as improved sleep, etc.

Whether or not we permanently "cure" our clients' vascular headaches, or simply provide them with welcome symptomatic relief, I'm confident you'll find that hands-on work can play an extremely useful role in managing the pain of migraines and in preventing the stress and myofascial strain that can trigger them. **m&b**

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NOTES

1. *Two studies that show beneficial effects of hands-on work with migraine sufferers are: Maria Hernandez-Reif et al., "Migraine Headaches are Reduced by Massage Therapy,"* International Journal of Neuroscience *(October 1998) 96: 1–11; and Sheleigh P. Lawler and Linda D. Cameron, "A Randomized, Controlled Trial of Massage Therapy as a Treatment for Migraine,"* Annals of Behavioral Medicine *32 (2006): 50–9.*
2. *Kirsten Hannan, "Orthodontic Braces and Migraine Headache: Prevalence of Migraine Headache in Females Aged 12–18 Years With and Without Orthodontic Braces,"* International Journal of Osteopathic Medicine *8, no. 4 (December 2005): 146–151.*