



## CHAPTER 6

### MIGRAINE MISERY - SOOTHING THE SENSORY OVERLOAD

#### MIGRAINES ARE MONSTERS

“Attack” is the proper word for the terrible migraine headache, which can afflict you with a characteristic intense, throbbing pain that can last anywhere from 4 to 72 hours. Migraines tend to be more severe than tension or cervicogenic headaches, and they can leave you

incapacitated in a way that the other types of headache would not. The aftermath of a migraine attack can leave you extremely exhausted with residual tender areas in the scalp as reminders of the storm that has just passed.

Migraines afflict 11.7% of the population, 17.1% of all women and 5.6% of men.<sup>1</sup> Here are some key symptoms. Migraine pain occurs on one side of the head 60% of the time, yet it can shift from one side of the head to the other.<sup>2</sup> In a major study of people with migraines, two-thirds of them reported eye pain with their migraines, over half of them had pain in the front and side areas of their heads, and 40% had pain in their necks.<sup>3</sup>

Movement, especially bending, can aggravate migraines. Nausea and vomiting occur with people who have migraine headaches, but not generally with those who have tension headaches.<sup>4</sup> Tension headaches can co-exist with migraines, but they are not caused by upsets in brain chemistry the way migraines are.

The trigeminal nerve, which emerges from the brainstem, sends three branches to the eye, the nasal area and the jaw. This nerve is thought to be involved in migraine headaches. When the nerve becomes hypersensitive during a migraine episode, it can result in eye pain that often accompanies migraine headaches. In turn, conditions of the eye can irritate the trigeminal nerve and trigger a headache. Dry eyes, for instance, occur three times more in people with migraines.<sup>5</sup> Migraine condition can lead to hearing loss and ear ringing, possibly permanent.<sup>6</sup> Between migraine attacks, brief jolts of pain can afflict the migraine sufferer without warning, which can be difficult to defend against.<sup>7</sup>

Imagine a house, buffeted by a blustery storm trying to barge in through doors, windows, and any crevice not properly sealed by the homeowner. Likewise, the key to successful defense against migraine storms is good detective work to determine where the migraine storm is trying to force its way into your head, and then insulating yourself to not let the headache gain entrance.

Research shows that physical therapy treatment is effective with migraine headaches.<sup>8</sup> Use the non-pharmacological physical therapy and acupressure techniques to blunt the sharpness of the migraine headache, either alone or in combination with medications or supplements with physician supervision.

## TRIGGERS

The vast number of triggers that set off migraines can make it difficult to develop a management plan. Mental stress and anxiety are major offenders that trigger migraine headaches. Stimulation of the senses by bright light, loud noises, sharp odor, and certain foods can produce intense migraines. Upsets to the body's internal systems may be enough to produce a headache episode, such as sleep disturbance, frequent traveling, menstruation, hunger, irregular mealtimes, unstable blood sugar levels, lack of enough fluids or even a change in a person's normal work habits. Other external triggers that cannot be controlled such as air pollution, allergens, changes in barometric pressure and seasonal changes can bring on a migraine. Some of the seasonally sensitive headaches are most frequent in the two weeks after the longest and shortest days of the year and have decreased frequency in April and October.<sup>9</sup>

## THE AURA

The "aura" is an unusual sensory perception that warn some migraine sufferers of an impending attack 5 to 60 minutes before their headache episode begins. These auras, which affect 20-30 percent of those with migraines, tend to be visual disturbances such as wavy, flickering or jagged zigzag lines, flashes of light, spots, blurry or tunnel vision. These visual disturbances can occur several times in a day depending on the severity of the migraine. When a person has an aura, 99 percent of the time visual symptoms are part of this phenomenon.<sup>10</sup> In a odd twist, even blind headache sufferers can experience visual aura with colors and shapes, along with atypical auditory symptoms.<sup>11</sup> In rare instances, the symptoms of the aura of a migraine and a stroke overlap since both conditions are a "brain attack" and should be evaluated by medical personnel as discussed in chapter 2.

## THE PRODROME

People with migraines often experience a prodrome, which is a change in the body's reactions for two hours up to two days before the migraine episode starts. Warning signs include frequent yawning, cold hands, fatigue, difficulty focusing, mood changes, abdominal symptoms such as bloating, constipation or diarrhea, food cravings for high carbohydrate food such as chocolate or candy, slurred speech, word-finding difficulty or tense and painful neck muscles.<sup>12</sup> For many people, neck pain may be part of their prodrome that precedes their migraine attack. One study of 487 people with migraines revealed that over a third of them had neck pain 2 to 48 hours before the migraine attack.<sup>13</sup>

## NECK PAIN WITH MIGRAINES

The same study of 487 migraine sufferers showed that a quarter of them had neck pain within two hours of their headache onset and over half had neck pain during the headache phase. Another study showed that 75 percent of migraine sufferers have neck pain.<sup>14</sup> Other researchers confirm how neck pain and migraines are tightly connected.<sup>15-16</sup>

At the first sign of neck pain, people with migraines should use physical therapy techniques to shut down the developing neck pain trigger before a full-blown migraine episode escalates. Headaches are much easier to treat if they can be shut down in the earlier stages. While the migraine episodes cannot be avoided, I have observed the intensity can be dampened if the neck muscles can be massaged, stretched, and strengthened. The neck pain treatments that decrease tension and cervicogenic headaches will be extremely helpful for migraines as well.

Some neck muscles are weaker in people who have had migraines compared with those who have not.<sup>17</sup> Even when the neck muscles had normal strength, the muscles in people with migraines took longer to reach full power than in people without migraines. The weaker the neck muscles were, the more frequent the migraines. Research differs on whether people with migraines have poor posture.<sup>18</sup> However, with some of the more long-term migraines, called transformed migraines,

neck motion is decreased in most movements.<sup>19</sup> Chronic migraine sufferers should make sure their neck motion remains normal and does not get tight. Home exercises prescribed by a physical therapist will keep neck muscles flexible. A simple check-up from the neck-up for one to two minutes several times a day could prevent the neck pain trigger to fire off your migraine attack. Hands-on treatment by a therapist and neck stretching techniques can decrease both neck pain and the severity of a migraine.<sup>20</sup>

## NAUSEA AND DIZZINESS

Most people with migraines suffer with nausea, and over half have vomiting, making it difficult to absorb the headache medication.<sup>21</sup> For some, vomiting helps to relieve a migraine, but for others it is just part of the misery endured with their migraines. I have found that some people are relieved by stimulating an acupressure point in the fleshy part of the forearm to calm down the nausea reaction, if it is done in the early stages, before the severity escalates to the degree of vomiting. This well-studied point, called Pericardium 6, is described in the acupressure chapter.



Pericardium 6

Half of people with migraines can have dizziness right along with their headaches, resulting in unsteadiness, balance difficulty and a sensation of the room spinning or of being on a rocking boat.<sup>22-23</sup> I have noted in the clinic that sustained pressure to the sternocleidomastoid will also decrease the dizziness sensation in certain clients.

## MENSTRUATION, PREGNANCY AND CONTRACEPTION

Women suffer migraines three times more than men. Two-thirds of women have menstrual triggers, and those women who have this trigger tend to have more severe headaches.<sup>24</sup> Menstrual migraines tend to come on one to two days before and two days after the start of menstruation, and last longer than non-menstrual migraines. They may be possibly more severe and resistant to treatment than non-menstrual headaches.<sup>25</sup> Anecdotally, I have found the use of acupressure



St 44



St 43

points in the feet, St 43 and 44 can help decrease menstrual pain in some women, including the client described in Chapter 7. **Acupressure points are not to be used in the event of pregnancy.** These activities may be harmful if done incorrectly, so please use caution and work with your licensed healthcare provider before attempting.

Migraines typically improve for many women as pregnancy progresses through the second and third trimesters.<sup>26-28</sup> Oral contraceptives increase stroke risk when taken by women who experience aura and smoke.<sup>29</sup> Both are risks for increased stroke, meaning that even if you don't smoke but have aura, you still have increased risk. Oral contraceptives may also increase migraines at the end of the menstrual phase.<sup>30</sup> Always discuss your medication dosages with your physician.

## GENETICS

Yes, our gene pool has a lot to say as to whether we will be afflicted with migraine headaches. However, our genetics do not determine our entire headache destiny. Studies of twins with migraines indicated that about half of the predisposition for having migraine comes from the gene pool, while the other half comes from environmental sources.<sup>31</sup> Tension headaches do not show the same genetic predisposition.<sup>32</sup> However, even if we cannot change our genetic makeup that predisposes us to migraines, we can change our lifestyle and exposure to triggers to limit the frequency and intensity of the migraine headaches.

## TRIGGERS FROM THE SENSES LIGHT SENSITIVITY (PHOTOPHOBIA)

Light is a major trigger of migraine headaches.<sup>33</sup> Migraine sufferers react more strongly to the light trigger compared to those with tension headaches, and even people who are blind can experience migraines triggered by light.<sup>34</sup>

People susceptible to light triggers should avoid bright light when possible. They should be especially careful to avoid abrupt transition from darkness to bright light, which can accentuate the light reaction. My clients frequently report they a headache developed, but they are unsure why. When I ask them what they might have done hours preceding the headache that was unusual, a common response is “nothing.” Further inquiry oftentimes revealed what “nothing” was. They may have watched television in a darkened room, or they sat in a dark movie theatre with a bright movie screen in front of them. The contrast of light and dark, accompanied by rapid changing images, is enough to bring on the headache reaction, even if the headache does not reach its peak until hours later.



Too often I have seen success in calming down a client's headache, only to find that it returned shortly after leaving the clinic. It seems that the rapid return to the bright outdoors caused the headache to come back. It has been helpful to my clients to “test” the headache reduction during the physical therapy session by bringing them to a window to see if the headache remained abated or if it returned in the presence of bright outdoor light. If the the headache flare up with light, there are ways to stop the headache from escalating. I have found the following strategies to be very helpful for light-sensitive people:

- Wearing sunglasses can do wonders to block the light trigger.



*Always wear your sunglasses*

- Apply pressure for one minute to acupressure point LI 4 in the web space between the thumb and forefinger to diminish the light-induced headache. I have observed this odd treatment work too many times to discount the benefit of decreasing the light sensitivity.



*LI 4*

- Do a chin tuck to improve posture and hold the tucked back position for 15-60 seconds to observe if the light-sensitive headache decreases. (Figure 1, 2, 3)



Figure 1



Figure 2



Figure 3

- Rotate the neck to the right or left gently and slowly to the full available comfortable range of motion, which can cause the light-induced headache to melt away. A migraine sufferer should be aware of how the flexibility in their necks can change, and *gently* stretch as many times as needed to prevent re-stiffening. Since there are different ways to turn the neck, each person needs to use the method that works for them. **Never forcefully turn your neck**, and stop turning if you feel any pain, dizziness, nausea or any unpleasant symptom. (Figure 4, 5)



Figure 4



Figure 5

- Many of my clients who are light-sensitive have their migraine escalate when I stand them in front of a bright window are amazed when their headache fades when I apply pressure to their sternocleidomastoid muscle. This muscle is easy to reach for you to massage. Maintain firm pressure to this sternocleidomastoid muscle for 30-60 seconds, as gently rubbing the skin over the muscle won't be effective (*Figure 7*). **Always** avoid pressure to the front of the neck. Your sternocleidomastoid muscle can limit neck turning if it is overly tight, so you are well advised to monitor this muscle to make sure it does not stiffen. Stiff necks may precede a migraine headache, so keep your neck muscles loose to prevent them from activating a headache.

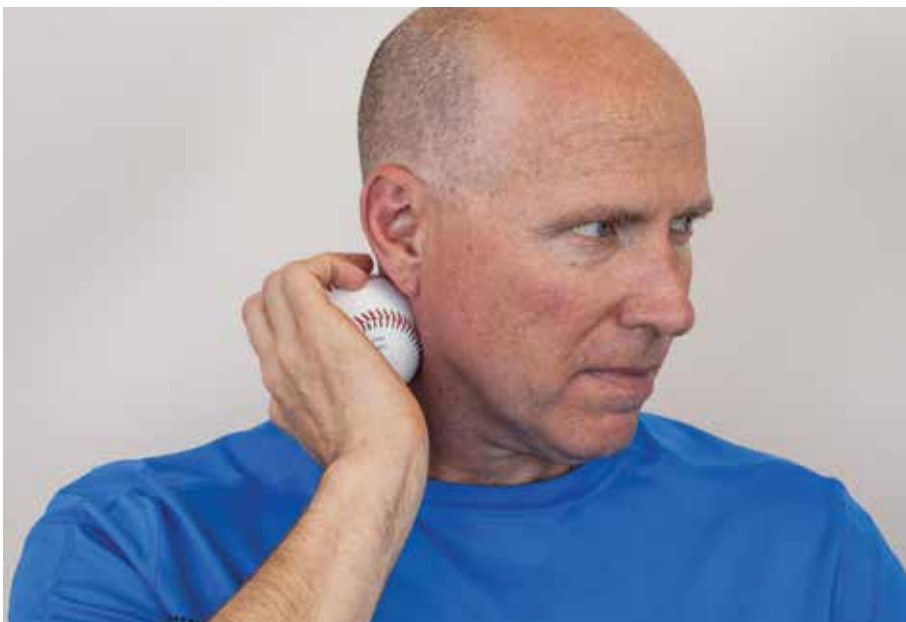
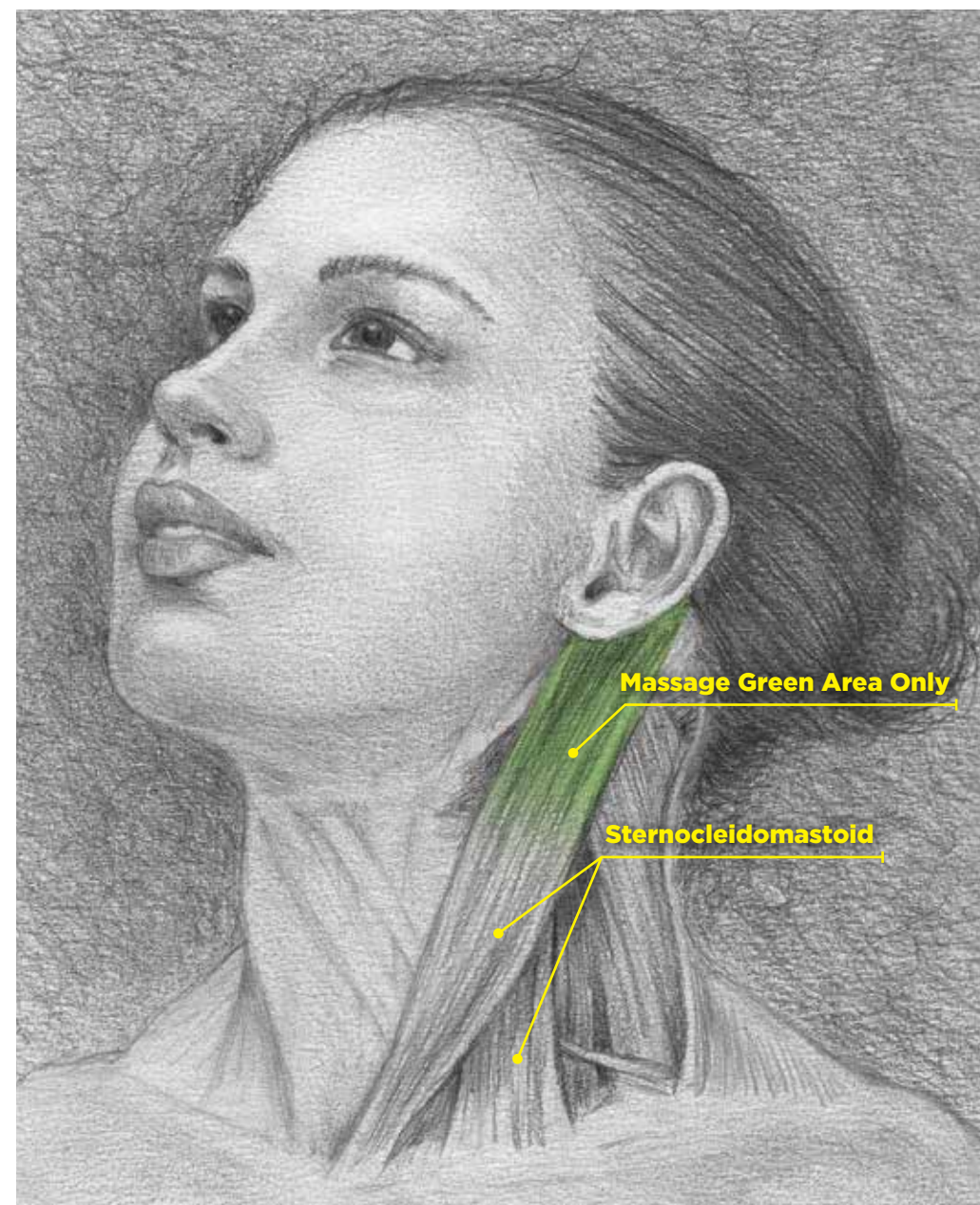


Figure 7

## NOISE SENSITIVITY (PHONOPHOBIA)

Loud and obnoxious noise can be aggravating to anyone, but to the migraine sufferer may be intolerable. Unlike the light sensitivity trigger, the noise trigger is not easily tested in the clinic. Many clients report that even though sound may not trigger their headache, sound intensifies the headache that is already present.



*Avoid massaging the front of the neck where your carotid artery is. Focus on the green area and apply deep pressure to this part of the muscle. Do not make the mistake of rubbing rapidly over the tight muscle. People get better results by maintaining the pressure for several minutes, using the left or right hand, whichever feels the most natural.*

## TASTE SENSITIVITY (DIETARY TRIGGERS)

Although not every migraine is triggered by diet, many people do have certain food reactions that fire up a headache. Figuring out your food sensitivities requires a considerable time investment, but the payoff will be well worth it in terms of freedom from your headaches. Since there is a lag period between what you eat or drink and the onset of a headache, detective work is essential to isolate the culprit food and drink items. Some of the most common offending food and drink items are mentioned below. People with irritable bowel syndrome are also likely to have migraines, so success in stabilizing one's diet could improve both conditions.

Food and drinks can be tricky, as there can be a “perfect storm” in which a combination of diet and life situations can set off a vicious headache. Wine, for instance, may trigger a headache, but only if a person is stressed or sleep-deprived. It can be very frustrating for a headache sufferer to sort out these factors to keep the headaches better controlled.

## FOOD DIARY

Keeping a food diary is the first step to discovering food sensitivity. Record food and beverage intake at every meal. Since no sign of any trouble may be apparent at the time you are eating, it may be hard to connect the food you love with the migraine you hate. If your headaches flare up from certain foods, you should be able to figure out the culprit food in two to three months. While keeping food diaries is a tedious chore, you will reap the benefits years down the road, so persevere and be meticulous. Record your headache level three times per day, using a scale of 0-10. If you feel your headache escalate, note the foods that were eaten one or two meals previously, and flag them for special attention. Over time, a pattern may emerge, and you can look back to see what you ate or drank on a day before your throbbing headache started. To avoid food reactions, you can then identify each food item as safe or as a troublemaker. As you begin your quest to turn up potential food sensitivities, keep in mind several things:



*Diet plays an important role in headache control.*

- There may be a delay of anywhere from 4 to 18 hours for the food sensitivity to manifest itself as a headache.
- There may be a combination of items ingested together, such as red wine and aged cheese, which can set off the headache. You may be able to have some of your favorite forbidden foods if you avoid the co-triggering food.
- There are foods that can help reduce headaches as well. Be on the lookout for the effect of chocolate or coffee which can decrease, as well as set off, migraine headaches.

## SUSPICIOUS DRINKS AND FOOD



### Drinks

- Liquids in general may be more troublesome for the headache sufferer than solid food, since liquids are so rapidly absorbed by the body.
- Red wine is a red flag for many people, because the flavonoid and tannin compounds in it are the likely culprits.<sup>35</sup> White wine is reputed to have fewer effects on headaches than red wine, though some European researchers have found otherwise. Alcohol products, in general, can wreak havoc on a person's headache, and the type of alcoholic drink can have tremendously different effects. Dark beer, for instance, may have a more inflammatory effect than light beer.
- Caffeine found in coffee and soda may aggravate a headache condition whereas caffeine-free soda might not. On the other

hand, numerous clients inform me that caffeine can relieve their headaches. Caffeine constricts blood vessels which is helpful for some people but not others. Caffeine sensitive clients may have been going through a caffeine withdrawal headache, which usually occurs 18 hours after their last drink of coffee.<sup>36</sup> The morning headaches, common among some people with migraines, may be caused by caffeine withdrawal. The person then feels a headache upon awakening because they have gone too long without caffeine.<sup>37</sup> The morning cup of coffee then serves to relieve the headache, until the person has been away from coffee long enough to allow the headache to creep back, which would occur during the nighttime hours.

- Certain fruit juices may trigger headaches, as the rapid change in blood sugar level may not be acceptable to the susceptible migraine brain. On the other hand, if a headache occurs when blood sugar levels are low, fruit juice may reduce its severity. If blood sugar levels fluctuate to such an extent that headaches are significantly affected, consult with your doctor on how to stabilize your blood sugar levels.
- Milk may well be a factor in migraines.<sup>38</sup> A person who is sensitive to dairy products may have a significant reaction to milk, with a less dramatic reaction to cheese because it is absorbed in the body more slowly.
- Headaches come, not just from what you drink, but also what you fail to drink. Water, however boring, may be the best fluid to take to help headaches.<sup>39-40</sup>

### Foods

Failure to eat or skipping meals can lead to fasting headaches. The reason is not certain, but there are several possibilities. Blood sugar levels are affected by food intake or lack thereof. The person affected by blood sugar levels would want to stick to a low glycemic diet that releases sugar into the bloodstream more evenly. A sweet potato, for instance, would be a better choice than a glazed donut to get a more even sugar release.

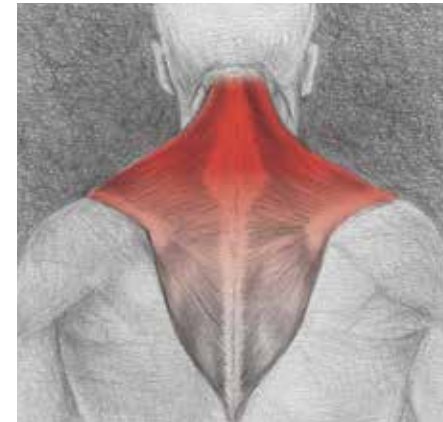
A migraine diet should consist of smaller meals throughout the day to keep blood sugar levels even, with breakfast being the largest meal of the day to replenish food stores. People with migraines need regularity in their lives to keep their migraine brains happy, and regular mealtimes are a part of that. However, there are some high-risk foods to keep on the radar screen.

- MSG (monosodium glutamate) flares up migraines!<sup>41</sup> Classically used as a food preservative in Asian restaurants, MSG has long been identified as a major headache culprit. An anecdotal example involves a client I treated for headaches who reported eating at an Asian restaurant for lunch with her sister and mother, and the following day all three of them had raging headaches. To help in your own personal food detective work, check with others in your family to see what foods bother their headaches.
- “Hot dog headaches” occur from consumption of processed meat which contain nitrates. Deli meats also warrant caution.
- Sugar substitutes, such as aspartame and sucralose, are problematic. People whose headaches occur with fluctuating blood sugar levels do not do themselves any favors by switching to sugar substitutes. Sodas have high amounts of these sugar substitutes and wreak havoc on a sensitive body chemistry.
- Cheese, particularly aged cheese, can be a potential trigger.
- Gluten can be a major irritant for migraines as well as for those with irritable bowel syndrome. Consider eliminating whole wheat products in favor of non-wheat alternatives.
- Foods containing high-fructose corn syrup, artificial dyes, and tyramine are worth considering in the detective work to determine which foods to remove.<sup>42</sup>
- Chocolate may be a food some people are sensitive to, but the good news is that chocolate has not been found to be a migraine trigger for most people. In small amounts, chocolate may even decrease a person’s headache.

Over time, a pattern may emerge. People can then look back in their diaries to see what they ate or drank the day before their throbbing headache started and avoid it.

## TOUCH SENSITIVITY AND FIBROMYALGIA

People with migraines have more tender trigger points in the neck and head muscles, specifically the sternocleidomastoid, upper trapezius, suboccipital, and temporalis muscles.<sup>43</sup> Get rid of these trigger points using the same treatments for tension and cervicogenic headaches.



*Upper Trapezius*



*Sternocleidomastoid*



*Temporalis*



*Suboccipitals*

A condition that is present with headaches is fibromyalgia. It involves widespread pain with multiple tender points throughout the body, especially in the shoulders and neck. Studies indicate that 20-31% of people with migraines also have fibromyalgia, and that both conditions share some of the same biological roots.<sup>44</sup> People with both migraine and fibromyalgia conditions have higher levels of stress, anxiety, depression, and sleeping disorders.<sup>45</sup>

## ODOR SENSITIVITY (OSMOPHOBIA)

Half of those with migraines have specific odors that trigger the migraine reaction.<sup>46</sup> My clients are very much aware of what scents trigger their migraine. Moving away from the scent before the migraine escalates past the point of easy recovery is imperative. Odor sensitivity may be a difficult-to-avoid trigger. Paints, cigarette smoke, perfumes and certain food smells may all generate the cascade reaction in the brain that leads to a full-blown headache. Identifying the specific environmental triggers may be key to solving the headache puzzle. Does something at the office seem to produce the headache? Could the carpeting in the home be a trigger? Thus, one should pay attention to not only what might be causing the headaches but where the headaches might be occurring.

## ENVIRONMENTAL TRIGGERS AND SINUS HEADACHES

Increased air pollution, especially with sulfur dioxide, increases the frequency of headaches.<sup>47</sup> The same factors that trigger migraines such as weather conditions, air pollution, allergies, emotional stress, and cigarette smoke also trigger asthma attacks.<sup>48</sup> The headache frequency is 50% higher in asthmatics and those with other respiratory conditions.<sup>49</sup> The weather pattern that was the most difficult on headaches was high heat and humidity with falling barometric pressure.<sup>50</sup>

Sinus headaches can also become aggravated by these environmental triggers. The lowering of barometric pressure can cause irritation to the sinuses, or the hollow cavities in the skull, as the air pressure outside exceeds the pressure inside the sinuses.<sup>51</sup> The sinuses can become inflamed from the pressure of infection from a cold or irritated from allergies. The sinuses can even apparently cause headaches when they react from a rapid descent from increased elevation, called high-altitude headache.<sup>52</sup>

Sinus headaches are intertwined with migraines, and the sinus pressure may be just one more trigger that the migraine brain doesn't like. The sinus headache may be felt in front of the head, underneath the nose and at the cheeks under the eye. Use the acupressure points under the cheekbone to decrease the pressure-type pain of the sinus headache. Many people feel their sinuses drain as the point LI 20 is being pressed, and the Chinese name for the point, "welcome fragrance," may be quite apt.



*Acupressure points for sinus headaches*

Much of the focus of this book is directed to physical treatments for the physical triggers. Yet mental triggers are vitally important and are just as important to deal with. A major trigger for migraines is mental stress, as it also is in tension headaches.<sup>53</sup> Keep your mind and body at an even keel to stop the headache from rising within you. The internal world needs to be calm to prevent the external world from triggering your headache. Lifestyle changes are needed to reduce stress if one truly wants to succeed in the battle against migraines.

## MENTAL MINDSET TO MINIMIZE MIGRAINES

### STRESS



Depression and anxiety unfortunately are often associated with migraines. Not unsurprisingly, people with migraines also have increased levels of depression.<sup>54</sup> Would a person's depression and anxiety improve if the headache episodes could become less frequent and intense? People with migraines also have a four times higher chance for suicide, possibly to escape the pain.<sup>55</sup> It is **urgent** for those struggling with migraines to find compassionate care from a healthcare provider to guide them to practice some of these stress-reducing techniques.

Stress levels must remain constant, as even the change from a higher level to a lower level of stress can trigger a "letdown" headache. These headaches frequently occur on weekends or upon finishing a work project. The letdown phenomenon also occurs in students whose bodies can stave off illness just long enough to complete final exams, but after that task is complete, the body gives itself permission to get sick. One study found that it was not the stress level itself that caused the migraine but rather the drop in the stress level from a higher to lower state that was the trigger.<sup>56</sup> This instability of one's stress levels throws the body chemistry of a migraine sufferer out of balance.

Three main behavioral treatment approaches that show great promise in helping migraine headaches are relaxation, biofeedback and cognitive-behavior therapy. These techniques take time to practice, but the payback in lower headache aggravation can be well worth it.

### RELAXATION



Mental stress leads to physical symptoms, and no headache program is complete until a person has learned to suppress some of life's stresses. Relaxation training has been shown to decrease people's headache symptoms.<sup>57-60</sup> Migraine sufferers need to force themselves to relax, as difficult as that concept may sound.

There are numerous relaxation techniques, but they all have the abdominal breathing technique as their mainstay. Breathing is key to achieving a relaxation response in the body. Natural and relaxed breathing comes from the diaphragm muscle which is just below the stomach. When the diaphragm muscle contracts it pulls air into the lungs by the suction force it produces. How do you know if the diaphragm muscle is working properly?



*Abdominal breathing technique*

When lying flat or in a recliner, put your hands on your abdomen and feel your hands rise as you inhale and drop as you exhale. If you are breathing incorrectly using your chest, it will expand, and your abdomen will stay flat during inhalation. A general guideline is that the inhalation phase of breathing should take two seconds, the exhalation phase four seconds with a brief pause between them. Air should be allowed to flow in and out without any effort as the mind becomes aware of the breathing pattern but makes no effort to change or control it.

Babies tend to naturally practice abdominal breathing and may switch to chest breathing as they become stressed-out adults. During strenuous activity, the chest muscles need to work hard to rapidly pull oxygen into your body. However, in a relaxed state, your chest muscles should not be doing the work. Some of the muscles involved with chest breathing attach to the collarbone and the neck, notably the upper trapezius and the sternocleidomastoid, two of our main offenders for producing headaches. Any technique that can prevent these two muscles from becoming overworked and stiff can help to shut down headache afflictions.

Mastering the breathing technique is the first part of learning to achieve general mind and body relaxation. The next step is to practice general whole-body relaxation techniques to reduce overall tension. One helpful relaxation training method is to focus on one area of the body, release the tension in that area, and then proceed to other areas until the entire body is relaxed.<sup>61</sup> Allow gravity to take over, as the body sinks into the floor or bed. First, place several pillows under your knees and arms to limit your muscles' need to hold these extremities in a sustained position. A comfortable neck pillow is also needed as well, as you allow your neck drift right or left rather than being held rigidly straight ahead. Once in a relaxed position, continue with the next phase of relaxation. Let your mind focus on your legs. Clench and unclench your toes and ankles. Let them release and stay relaxed as you move up the body to the thighs. Tighten and then relax them, imagining that they are very heavy, as if being weighed down by concrete. Focus now on your hips, and as they relax you may feel your legs rotate outward.

Now work your way up to the trunk. If you are still breathing properly this area should be well on its way to being relaxed already. Your back, which stores a great degree of tension, starts to relax, feel heavy, and sinks into the floor. Let your mind proceed to your arms, which are frequently in awkward positions. Towel rolls may be placed under your arms for support. Let your arms go limp as they are closely connected to the muscles that go into the head and neck.

Now your mind drifts to your head itself. Are you holding your jaw tight and clenched? Let your jaw relax and open as it will. Is your brow furrowed with stress? Squeeze your eyes several times and let those muscles release as well. For full relaxation, allow your head to roll to one side or the other without being held back by tight neck muscles. You may need to place a towel roll under your neck to prevent it from feeling uncomfortable and stiff.

Do not fall asleep! Sleep is different from relaxation, though perhaps it is good if one leads to the other. The goal here is not just total body relaxation but a mental reset as well. Your mind needs to return to its relaxation state when encountering life's inevitable stressful situations.

Psychologically, mental attention is diverted away from the stressful life situations that have kept the headache muscles tense and tight. A relaxation session should end slowly, starting with a deep inhalation, slowly followed by movement in the hands and feet and finishing with a general body stretch. I have had clients who come in for their physical therapy appointment with a medium level of tension headache and end their relaxation session with their pain faded with no treatment other than my coaching them through the relaxation process.

As you become experienced with the discipline of relaxation, headaches may be prevented from forming by stopping the cascade of stress reactions from kicking in. If you need a stress break during a hectic day, the same relaxation techniques can be done in a seated position, using armrests for support of the shoulder girdle to prevent the downward pull of your arms. Even in the standing position, abdominal breathing techniques and letting go of the involuntary shoulder hunch helps keep you in a relaxed state of mind.

### BIOFEEDBACK

The biofeedback method uses an electrical feedback machine to help guide the relaxation process. Electrodes are placed onto the muscles that are identified as tight. Audible beeping and visual indicators on a TV screen indicate the degree of muscle tension. As a person learns to shut down the muscle tension, the frequency of the audible beeping decreases, and the visual indicators come down and flatten out. In a way, biofeedback can be thought of as a video game with the victory being the reduction of muscle tension and a corresponding reduction in headache intensity. The person learns to relax the headache muscles even after the machine is withdrawn. Biofeedback has proven to be a successful treatment option to reduce headaches.<sup>62-64</sup>

### COGNITIVE BEHAVIORAL THERAPY

Cognitive behavioral therapy can help people develop coping strategies to change disturbed thought patterns, negative feelings and anxieties that may trigger migraines and tension headaches. In one study these behavioral treatments, combined with relaxation and biofeedback

training, achieved a 33-49% reduction in migraines compared to only five percent of the patients who did not receive the cognitive treatments.<sup>65</sup> Other studies noted the 35-50% relief from mind-body behavioral treatments produced similar relief to medication trials.<sup>66-67</sup> As with many aspects of research, some found a contrary result showing limited effectiveness.<sup>68</sup> The structure of the program may determine effectiveness. Group versus individual treatment programs may be more successful for some people.<sup>69-71</sup> While internet programs exist, I recommend finding a credentialed psychologist in cognitive behavioral therapy to help develop problem-solving techniques to deal with the headache-producing emotions of anxiety, depression and anger.

People with migraines who tend to be apprehensive and anxious about life situations may bring on a migraine can benefit from psychological treatment to help them redirect the negative thoughts and emotions before they precipitate a headache. Catastrophizing, or amplifying the severity of a situation out of proportion, leads to increased migraines.<sup>72</sup> Labelling situations as terrible or insurmountable also escalates headaches. People develop destructive ways of thinking that are difficult to change. My headache clients often relate how the physical treatments work surprisingly well to keep their headaches at bay – until a stressful argument occurs with someone who brings trouble into their lives. Even after the argument is over, their minds churn over the stressful argument, which keeps cycling inside their heads along with their headaches that have been produced from the event.



Any person, place or situation that creates an unpleasant life situation can start the unpleasant mental cascade that brings on the migraine. Examples include family conflict, the dread of facing a stressful situation at work, or simply the thought of a traumatic event from the past may be enough to bring on a migraine.

Anger can be an underlying, smoldering condition that keeps a person primed to have migraine headaches. Both the anger-out person, who expresses anger outwardly by yelling and smashing objects about the house, and the anger-in person, who buries anger deep inside without expressing it visibly, drive their headache condition into high gear.<sup>73</sup>

Migraines, in a way, are like the “thought police” that do not permit one to think a stressful thought without punishment. Thoughts racing past the stress speed limit trigger punishing headaches. Calm, peaceful thinking that stays within the stress speed limit rewards a person with the avoidance of a miserable headache.

Some of my clients benefit by substituting a negative thought process with a healthy one. Journal your negative thoughts to allow you to see how extreme and destructive your thoughts can be. A positive strategy is to use visualization techniques. Imagine a place where you have been headache-free, such as on a beach, or cooking in the kitchen, or talking with a friend with whom you can relax. Quickly substituting the positive imagery for the negative one that you feel creeping up inside you is one way to short-circuit the negative headache feedback loop.

One of my clients described how she “changes the station” mentally when faced with a stress-provoking situation to decrease her mental anxiety as she knows that failure to do so may trigger a migraine. Of course, life adjustments are not that simple, which is why a mental health professional can be very helpful to start you on your way to developing mental confidence by learning to take control of the part of the headache caused by mental stress. You will have more success when you develop a sense of control over how to manage your migraines without reaching for another medication.

## SLEEP

Another way that these behavioral therapy techniques have been shown to help headaches is by showing people how to get better nighttime sleep.<sup>74</sup>

Sleep proves to be elusive for many people suffering with migraine and tension headaches. The lack of a good night’s sleep has led to many miserable migraines.

In a study of 1,283 people with migraines, half of them reported sleeping difficulties as a headache trigger, and 85% of them reported that they attempted sleep to relieve their migraines.<sup>75</sup> In fact the conditions of migraine and sleep disturbance each make the other condition worse.<sup>76</sup>

Numerous types of sleep disturbances can lead to headaches, such as snoring, obstructive sleep apnea, and sleeping too much or too little. People who resort to taking sleeping pills to help with the sleep-related headache may find that the insomnia medication itself may cause headaches.<sup>77-78</sup> Grinding of the teeth at night is also related to migraine headaches, for which the most effective corrective treatment often is a mouth splint.<sup>79</sup>

A nighttime condition called restless leg syndrome, where the legs have an overwhelming urge to move to avoid an unpleasant cramping sensation, occurs about three times more in people with migraine.<sup>80</sup> Movement and stretching of the affected leg muscles does relieve the leg sensation, which may return as a person tries to go back to sleep. Sleep is, of course, disturbed, and when this condition is tied in with migraines, falling asleep can become a tedious chore.

The hypnic headache is another subtype of headache which wakes a person up once in the middle of the night for about 30-90 minutes.<sup>81</sup> It tends to occur in post-menopausal women with a history of migraine headaches.

## SUGGESTIONS FOR SOUNDER SLEEP

Natural non-pharmacological methods can be used to get a better night's sleep. Relaxation training, biofeedback, and cognitive-behavior therapy can help ease the mind to diminish worry and general tension that make it difficult to fall asleep. In addition, try the following techniques;

- Avoid caffeinated drinks and sweet foods four hours or less before bed. The elevated caffeine and sugar levels create a high energy state signaling the body to get up and go at the exact time that the body needs a low energy state to prepare for sleep.
- Shower 30-60 minutes before bed. As your body cools down, it will begin to feel tired.
- Avoid mental and visual stimulation from phones, TV or computer screens before bed. Let your mind go into shutdown mode.
- Make sure your room is totally dark! If you cannot shut out the light, wear a thin stocking cap that covers your eyes.
- Only go to bed when you are fatigued, not to read or make phone calls. Mentally associate your bed with sleeping.
- Do not take daily naps. Instead, schedule enough time to sleep in bed.
- Set and stick to a regular time to go to bed!

## EXERCISE FOR MIGRAINES

Exercise is a double-edged sword. Exercise can relieve migraines yet can also contribute to their severity. On the positive side, exercise can relax muscles, improve the cardiovascular status and lead to better oxygen absorption. A study at a headache clinic on the effect of exercise on 20 female patients between 36 and 63 years old, found that 40 minutes of cycling workouts significantly decreased the number of headache days per month, as well as the intensity of the headaches and the amount of medication taken.<sup>82</sup> The study noted that the recommended exercise level to improve and maintain fitness is

3-5 days per week, 20-60 minutes at 55-90% of the maximum heart rate. You need to consult your doctor regarding your fitness level and your appropriate intensity of exercise. *These activities may be harmful if done incorrectly, so please use caution and work with your licensed healthcare provider before attempting.*

Consider the positive things exercise can do to help reduce headaches. Exercise can decrease stress, alleviate depression, help regulate fluctuating blood sugar levels, and improve sleep when exercise is done hours before bedtime to allow the body to relax prior to sleep.



In certain headache subtypes, such as exertional headaches, exercise may trigger a migraine. Other exertional activities that researchers found to increase headaches in some people are sexual activity, straining of the trunk muscles during coughing or vomiting, or even airplane travel.<sup>83</sup>

Exercise potentially can lead to headaches by dehydration and depletion of blood sugar levels. I recommend people with headaches to drink plenty of water and to eat foods with a low glycemic index, such as sweet potatoes, apples and other foods that release sugar more slowly into the bloodstream.

Since the research on exercise is not decisive, it is up to the individual to determine the potential benefit. How do you know if you are likely to get an exercise-induced headache? Anecdotally, I have found one useful clue to be whether a person's headache is affected by warmth or cold. For those people who feel relief with heat to the neck and head, aerobic exercise should have a definite beneficial effect, as the body warms up naturally from the increased activity. For people who have migraines, the extra blood flow to the brain is a good thing.

However, if a person's headaches respond much better to cold than heat, a headache may be triggered by the increase of body temperature and circulatory effects that exercise will produce. The clients in our clinic who have cold-responsive headaches are monitored carefully when on the treadmill. Exercise is stopped at the first sign of increasing headache. If you are in the category of those who get headaches with vigorous aerobic exercise, consider longer walks to stay active and yet remain below the activity level that would push you into the headache zone.

### HEAT OR COLD RESPONDER

Find out if you respond better to heat or cold application on the head. Many people have tenderness in areas on their scalp where stretching is not possible, and massage is too painful. I find that heat, applied for 10-20 minutes, can relieve the headache significantly with an immediate decrease in scalp tenderness. With some types of migraine

headaches, heat may be one of the few non-pharmacological treatments to reduce a headache. Generally maximum relief will be obtained in 10-20 minutes, and it is better to use heat for 20 minutes three times a day rather than 60 minutes once a day.

People who respond to cold may find an ice pack, frozen vegetable bag, or cool washcloth useful to constrict blood vessels on the head. A sweatband or tight-fitting



cap may be helpful to apply pressure to the head. Perhaps the most effective treatment for the cold-responder came from a young lady who reported that her head felt wonderful when she walked outside in 15-degree-above-zero weather and let the gentle winter wind blow on her head. As we brainstormed on different ideas to keep the head cool, she came up with the idea of placing a damp stocking cap into the freezer to be pulled out and placed over her head, which turned out to be very helpful to calm her headaches. She, of course, reported that treadmill activity increased her headache as her body warmed up, and diminished as the treadmill was stopped.

## COLD HANDS (RAYNAUD'S SYNDROME) AND HEADACHES

Many clients I see with headaches also complain of cold hands. Abnormally cold hands in Raynaud's syndrome occur when the body excessively constricts the blood vessels to the hands as a response to cold temperature or, at times, stress. Those afflicted with this annoying cold hand reflex also get migraines much more frequently than those who do not have Raynaud's syndrome.<sup>84-86</sup> The same genetic condition that reduces blood flow to the hands also seems to reduce blood flow to the head, which triggers a migraine reaction.<sup>87-88</sup>

A treatment known as thermal biofeedback that retrains the hand circulation to increase and warm the hands will reflexively help the head as well and decrease headache symptoms.<sup>89</sup> People who become capable at self-regulating their own hand temperature are also able to have some control over their headaches.<sup>90-91</sup>

### **BONUS TREATMENT IDEA TO WARM UP COLD HANDS**

The following method quickly relieved my own annoying cold hand problem that had bothered me 20 years ago. It is adapted slightly from a concept reported in *The Journal of Physician and Sports Medicine*.<sup>92</sup> This treatment can help you if you are tired of your cold hands and feet. You know what it is like when your hands and feet become abnormally cold whenever your trunk becomes cold. The principle of this treatment is to create a temperature differential to keep your hands warm at the same time that your trunk is kept cold. To train your hands to stay warmer, try the following;

- Dress your trunk lightly, so that it will rapidly cool down.
- Bring a bucket of warm water into a cold garage, or outside, when the temperature is between 20 and 50 degrees Fahrenheit.
- Place your hands into the warm, but not burning hot, water for 5-10 minutes. The goal is to keep the hand circulation from constricting, keeping the hands warm, even though the trunk is now becoming cold.
- The treatment works best when there is a large temperature difference between the warm water and the cool garage. After 5-10 minutes the warm water will cool down and the temperature difference levels out.
- You may want to put a cap on your head to keep it warm, which will not interfere with the trunk cooling down.
- In 5-10 treatments you should notice your hands become noticeably warmer in the cold weather. People who have tried this admittedly difficult treatment have reported to me that it did indeed help warm their hands and feet.

## **CHILDHOOD HEADACHES**

Children also suffer from headaches before age 15 and often outgrow them by age 20.<sup>93</sup> Headaches in children occur for many reasons but studies indicate that about three to seven percent of those children have migraines.<sup>94-96</sup> In children, migraine can even in rare cases appear as an abdominal migraine, which may be dismissed as an upset stomach. However, children with an abdominal migraine would have stomach pain severe enough that they could not continue with school or other activities, along with possible nausea, vomiting, and poor appetite.<sup>97</sup> The child may have a sensitivity to light, just as an adult would, and the treatment for migraine would be similar for both. A child with abdominal migraines might also be likely to have motion sickness, and not do well with long car rides or amusement park rides.<sup>98</sup> The child would likely have a close relative who has a migraine history.<sup>99</sup>

Headaches affect a child's family and social life, school success and self-esteem. Natural treatments and lifestyle adjustments can help restore the headache cycle and should be tried prior to the initiation of oral medications. However, many children do not receive treatment, and carry their headache condition with them into their adulthood. Many clients in their 20s, 30s and 40s mention to me that their headaches began in childhood. Since most people's migraines do not drop off until their 40s, it is gratifying to be able to reduce young child or teenagers' headache and to spare them potentially decades of headache misery.

### **SUMMARY**

Your headache is different than everyone else's and your headache management plan should be custom-fit to meet your specific needs. A real-life example in the following chapter shows how headache reduction strategies were combined to give a person relief from her long-term headaches that had afflicted her from age 17 until age 28. If she had not used these strategies, her headaches would likely have interfered with her life for many more years. Chapter 7 shows how to practically apply the ideas from earlier chapters, as well as presenting a new technique that can provide rapid relief of headache pain.