INTRODUCTION

The clinical diagnosis of migraine follows a murky, twisted path. Though the Headache Classification Subcommittee of the International Headache Society (IHS) has developed diagnostic guidelines [1] to which nearly all practicing physicians adhere, they are founded primarily on historical subjective data from migraine sufferers. There is currently no known specific test to determine the presence and/or severity of a headache, nor is there a known cure—headaches, especially migraines, must be managed [2,3]. For those reasons, it is highly critical that the family physician know his or her patient in depth, including medical, family and headache histories; medications and treatments; dietary and sleeping habits; and any other relevant lifestyle information, all of which might be of importance when treating the migraineur.

PATHOPHYSIOLOGY SKETCH

Research has shown that migraine is a genetic condition of the nervous system, i.e., a neurological disorder. Sufferers have inherited a very sensitive nervous system, causing them to be more reactive to lights, sound, taste and smells. Their brains are generally also more responsive to surrounding stimuli. As these stimuli increase in number and/or intensity, they trigger or exacerbate an inflammatory response in the brain which causes the trigeminovascular system to activate [4,5]. The body and brain are unable to compensate for the overload, and a headache ensues.

There are multiple mechanisms responsible for the pathophysiology of a migraine, and though medical research has yet to successfully define how they work, they are present in every individual. In other words, everyone has a propensity for migraine. What activates these mechanisms, however, and the extent or severities to which they are activated vary by individual. Each person has a threshold for a particular trigger, or more often several triggers occurring together, which manifest in migraine [6].

In metaphorical terms, imagine a beaker unique to each individual in size and shape which is partially filled with a solution containing the necessary ingredients for triggering migraines in susceptible patients. Once the top is breached, a headache is triggered. The causes may emanate from external sources such as stress or a family crisis, or from internal sources such as hormonal imbalances or certain foods or medications. Further, it is possible that a patient may be exposed to a trigger such as hormonal imbalances or certain foods or medications. Finally, it is possible that in so doing, a patient can entirely manage his or her migraines with only minimal use of medication.

COMMON TRIGGERS

Following is a brief listing of many of the common triggers which have been identified in the medical literature as inducers...
of migraine episodes. A more detailed explanation and discussion can be found in a publication by the author [7].

External

- **Environmental:** Barometric pressure; abrupt temperature changes (e.g., from outdoor warmth to inside air conditioning, or similarly, the “ice cream” effect—quickly ingesting a quantity of very cold liquid when one is overheated); changes in altitude; travel across time zones; changes in seasons
- **Stress:** Work; emotional crises; anxiety; stress “letdown” following exertion or sudden removal of stress
- **Sensory:** Perfume; tobacco smoke; strong odors; industrial smoke/pollution; flickering or glaring lights; fluorescent lights; loud noises; excessive computer work; eyestrain
- **Habits:** Sleep pattern changes or disturbances; erratic work schedules; skipping meals, especially breakfast; intensive or excessive exercise; smoking
- **Posture:** Awkward neck posture when reading, or working at a computer, or playing a piano, etc.; repetitive activity, especially as it involves the shoulder/neck areas

Internal

- **Hormonal:** Menstrual cycle; ovulation; menopause; hormone replacement therapy (progesterone); estrogen levels; contraceptives; blood sugar levels
- **Medications:** Some pain killers; over/under medication; bronchodilators for asthma; OTC stimulants; OTC and prescription diet pills; vasodilators; loss or reduction of medication efficacy; opioids, barbiturates and NSAIDs whose removal can lead to rebound headaches
- **Genetic:** Family history of migraine; male v. female
- **Diet:** The proceeding notwithstanding, by far the most common migraine triggers are dietary, and of these, the most notorious players are caffeine, chocolate, monosodium glutamate (MSG) and certain sweeteners. It is worth noting that even an extensive listing is incomplete. A food source may be a critical trigger for a single patient. However, the next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches. The next step is to review and address any medications whose removal can lead to rebound headaches.

### Dietary Triggers

<table>
<thead>
<tr>
<th>Cheese/Dairy Products</th>
<th>Avoid: Both caffeinated and decaf coffee, hot or cold tea, and sodas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td>Avoid: Milk and dark chocolates specifically</td>
</tr>
<tr>
<td>Monosodium Glutamate (MSG)</td>
<td>Avoid: Ready-to-eat meals, processed foods, some seasonings, low-fat/low-calorie foods, Chinese (and other) restaurant foods, soups and bouillons, veggie burgers and protein concentrates.</td>
</tr>
<tr>
<td>Aspartame</td>
<td>Avoid: Nutrasweet, Sweet N Low (saccharin) may also be a trigger. Allowed: Splenda (sucralose).</td>
</tr>
<tr>
<td>Processed Meats and Fish</td>
<td>Avoid: Any meats preserved with nitrates or nitrates, including hot dogs, sausage, salami, pepperoni, bologna, liverwurst, beef, jerky, ham, bacon, paté, smoked/pickled fish, anchovies and caviar. Any meats containing tyramine like beef, chicken livers and wild game. Any meats that are aged, marinated, smoked, canned, cured, tenderized or fermented</td>
</tr>
<tr>
<td>Alcohol/Vinegar</td>
<td>Avoid: Red wine, champagne and dark-colored, heavy cocktails. Limit ketchup, mustard and mayonnaise usage.</td>
</tr>
<tr>
<td>Nuts</td>
<td>Avoid: all varieties of nuts.</td>
</tr>
<tr>
<td>Certain Fruits/Juices</td>
<td>Avoid: Citrus fruits and juices, bananas; dried fruits including raspberries, plums, papayas, passion fruit, figs, dates and avocados</td>
</tr>
<tr>
<td>Certain Vegetables</td>
<td>Avoid: Especially onions, sauerkraut, pea pods; some beans including broad, Italian, fava, navy and lentils. Allowed: garlic, shallots, spring onions, leeks and scallions</td>
</tr>
<tr>
<td>Yeast-Risen Baked Goods</td>
<td>Avoid: Homemade or restaurant-baked breads, sourdough, bagels, doughnuts, pizza dough, soft pretzels and coffee cake</td>
</tr>
<tr>
<td>Other Possible Triggers</td>
<td>Avoid: Cultured or fermented soy products like miso and tempeh; highly-processed soy protein concentrates.</td>
</tr>
</tbody>
</table>

### The Process: A Treatment Protocol

Once a diagnosis of probable migraine or migraine has been made in accordance with IHS guidelines, I suggest that the process of healing begins with the elimination of migraine triggers. It is time to delve further into the patient’s history and habits.

My first action with a new migraine patient is to urge him or her to immediately discontinue the four major food triggers or foods that contain them, i.e., caffeine, chocolate, MSG and certain sweeteners. This could result in rebound headaches for two to three days, but they can normally be resolved by OTC medications, and the patient would be free of these common potential triggers before the next office visit.

During the interim, I strongly suggest that the patient maintain a diary or journal to include his/her activities, external environmental conditions, internal consumption, and migraine episodes. There are many suitable templates available from which to choose, and the physician can easily modify them to suit his or her practice or to meet the needs of an individual patient. This step of the healing process requires that the patient be educated on many of the tenets contained in this paper. It is then important for the family physician to thoroughly review the diary and compare and contrast it with the background history obtained during the initial office visit. The clues are there—it is up to the physician and the patient to weed them out.

The next step is to review and address any medications taken by the patient for migraine pain relief. However, caution is advised, especially when dealing with opioids, barbiturates and NSAIDs. If the patient has taken opioids or barbiturates for as little as 10 days, or NSAIDs for more than 15 days, complete
immediate withdrawal is not advised. The resultant rebound headaches can mimic the distress of migraine itself. For these medications, a withdrawal period of 2 to 12 weeks is advised [9].

The process is cyclical. As information is gathered and responses to certain stimuli are identified and removed or avoided, gradual improvement in the frequency and severity of the patient’s migraines as well as dependency on medication should become evident. It is then time to begin the cycle anew.

As mentioned earlier, the ultimate migraine treatment goal is to rid the patient of their triggers such that their migraines can be controlled and the patient’s quality of life thereby significantly improved. By treating triggers, the intensity and/or number of episodes could be attenuated with a concomitant reduction of or reliance upon medication.

Obviously, there are varying degrees of success. The process can be frustrating; it will be time-consuming; relapses can occur; and often successful treatment does require a life change on behalf of the patient. Nonetheless, there is absolutely nothing more rewarding than for a patient to tell me, “You’ve given me back my life!”

REFERENCES

7. Ibid. 38-40.