Migraine Triggers

What should clinicians know and share with patients about migraine triggers?

A panel discussion with Ashley Alex, MD; Randolph W. Evans, MD; Paul G. Mathew, MD; Peter McAllister, MD; Nina Riggins, MD, PhD; and Rashmi Halker B. Singh, MD

Migraine triggers are events or exposures perceived to make a migraine attack more likely. Triggers should be differentiated from biologic risk factors that make a person more likely to have migraine (eg, menstruation/estrogen fluctuations or a family history of migraine).

A 2018 meta-analysis identified more than 400 unique migraine triggers reported on in the primary research literature that the authors grouped into 15 different categories.[1] Although most people with migraine (76%) say they have triggers, there is no single trigger reported by everyone with migraine. Most people who perceive triggers also report that not every exposure results in an attack.[1-3]

Although the term trigger suggests a cause-and-effect relationship, the question of whether these stimuli are truly causative is yet to be determined.[4-10] There is also evidence some perceived triggers actually reflect increased sensitivity to those stimuli in the early (premonitory) stage of a migraine attack.[11-14]

Strict avoidance of triggers can be impractical and may limit quality of life,[15] but behavioral and lifestyle management of perceived triggers may be effective, particularly for some of the most commonly endorsed triggers of stress, dehydration, skipped meals, and sleep disruption.[16,17]

In short, people with migraine report that they have sensations and sensitivities that occur before the pain, photophobia, phonophobia, or nausea/vomiting of migraine attack begins. Scientific and clinical understanding of these events as part of prodrome or causes of an attack remain limited.

Practical Neurology asked several headache specialists to share their understanding of migraine triggers and how best to talk with patients about them.

WHAT SHOULD CLINICIANS KNOW ABOUT MIGRAINE TRIGGERS?

ASHLEY ALEX, MD

Commonly reported triggers include stress or let down from stress, sleep deprivation, weather changes, and alcohol. Reported triggers differ from person to person so a blanket statement forbidding patients to avoid triggers may not actually be beneficial. In our headache clinic, we see patients who have been told to never drink coffee or wine or eat chocolates, even if these never caused migraine attacks for them. This is not only unhelpful but decreases their enjoyment of life. In addition, many of the reported triggers may represent premonitory symptoms of the migraine disease itself (eg, craving for chocolate), rather than an actual trigger. It is best to ask each person what they have experienced so that you may tailor recommendations.

RANDOLPH W. EVANS, MD

About 75% of people with migraine have at least 1 trigger factor. Many people have multiple triggers with at least 4 in 1 study. The most common triggers reported are emotional stress (80%), not eating (57%), change in weather (53%), sleep disturbances (50%), perfume/odor (44%), lights (38%), alcohol (38%), sleeping late (32%), heat (30%), food (27%), exercise (22%), and sexual activity (5%). The most common triggers in the diet reported are chocolate, coffee/caffeine, alcohol, and monosodium glutamate (MSG), but many others are reported including citrus, aspartame, sucralose, and gluten. Some provocative studies where a dietary trigger is given have not been successful in demonstrating the trigger (eg, chocolate).

RASHMI B. HALKER SINGH, MD, FAHS, FAAN

I think it's worthwhile to understand migraine triggers and migraine prodrome symptoms, and to understand that identifying triggers may not be so simple. As Dr. Alex said, some of the things that have been traditionally identified as triggers may actually be part of the migraine prodrome. For example, some people feel eating chocolate can be a migraine trigger. At the same time, craving chocolate has been identified as a migraine prodrome, opening up the idea that the migraine attack may have already started by the time that someone acted on their desire to eat chocolate, and the pain phase would have occurred whether they had the chocolate or not.

PETER MCALLISTER, MD, FAAN

Many of the traditionally accepted "triggers" don't actually hold up under scientific scrutiny and are actually associations (eg, many people crave chocolate around menstrual periods, and the fall in estrogen can cause migraine attacks, so poor maligned chocolate takes the rap as a trigger.)

PAUL G. MATHEW, MD, DNBPAS, FAAN, FAHS

An effective migraine treatment plan should include trigger management—popularly called called lifestyle coaching. This includes stress reduction, dietary adjustments, routine exercise, and sleep. Proper management of sleep often causes confusion because oversleeping and taking naps can be counterproductive. Some people who think they sleep well often have moderate-to-severe sleep apnea, that can cause headaches, mood issues, irritability, and cognitive/memory issues.

NINA RIGGINS, MD, PHD, FAAN, FAHS

As others have said, we are learning to differentiate between triggers and premonitory symptoms. Avoiding some triggers (eg, processed meat or dehydration) can be helpful, but avoidance of others may be maladaptive and lead to decreased quality of life. Exercise is a good example of the latter. People living with migraine may be anxious that strenuous exercise will trigger an attack and stop exercising altogether, which is not healthy. Moderate exercise (eg, yoga, walks, or swimming) can actually decrease migraine attack frequency, reduce anxiety, and improve general health. Although stress is a difficult-to-manage trigger, there are available tools of meditation, mindfulness, cognitive-behavioral therapy, and the community of migraine warriors that can prove helpful.

WHAT DO YOU SHARE WITH PATIENTS ABOUT MIGRAINE TRIGGERS?

ASHLEY ALEX, MD

I review some of the more common triggers as well as lifestyle modifications that may be helpful (eg, good sleep hygiene, eating regularly, hydration, exercise, and relaxation techniques). I encourage patients to keep headache diaries and detail perceived food/drink triggers. They can then make 1 change at a time to evaluate more objectively whether avoiding that improves their symptoms.

NINA RIGGINS, MD, PHD, FAAN, FAHS

I recommend patients keep a migraine diary to help identify their triggers. We discuss that triggers can have a cumulative effect—they add up—and focus on limiting those that can be controlled (eg, sleep, hunger, dehydration), especially when other risk factors and triggers (eg, menstruation or weather) can not be avoided. In shared decision making for a treatment plan, we discuss medications, devices, and lifestyle management of triggers.

RANDOLPH W. EVANS, MD

I also recommend a headache diary to note possible triggers, which can then be avoided if possible, although some are very difficult to avoid (eg, stress, lack of sleep, and change in weather). Like 70% of headache specialists, I personally have migraines and attest to the significance of triggers. My triggers include stress, lack of sleep, oversleeping, glare from the sun, and chocolate (despite the negative study).

RASHMI B. HALKER SINGH, MD, FAHS, FAAN

Being able to identify triggers and manage them can be empowering and help shift control over the disease process back to the patient, so we do speak about how to look for potential triggers, common triggers, and how to manage them.

Although it is helpful for patients to try and identify triggers when they can, if they cannot, I don't stress the issue too heavily because migraine is a genetic, neurologic disease, and not all attacks are provoked by external triggers. Focusing solely on external triggers can sometimes add to the guilt and stigma of migraine, which many individuals who live with this disease already experience. All of this comes back to knowing your patient and being able to help individualize care.

PAUL G. MATHEW, MD, DNBPAS, FAAN, FAHS

I discuss with patients that a balance of medication and trigger mitigation usually leads to the best results. ■

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Disclosures
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