

FACT SHEET

Food and Migraine: The True Story

From self-help guides for migraine to textbooks of neurology – all cite numerous foods as a trigger for migraine. The major culprits reported as headache triggers are alcoholic drinks, chocolate and cheese. But how many of you reading this fact sheet are fed up with being told to avoid these foods, or have already eliminated them from your diet with absolutely no effect on the frequency or severity of your attacks?

Should I give up alcohol?

The most frequently cited trigger is alcohol. In one study, 29% percent of people with migraine reported alcohol as a trigger for attacks, compared to 19% reporting chocolate, and 18% reporting cheese. Certain types of alcohol contain chemicals that can either directly affect blood vessels or provoke the release of other chemicals thought to be involved in migraine. In this respect, the problem is sensitivity to certain components of the alcoholic drink and it is not a true allergic reaction. Certain types of wine contain more of these potent chemicals and are therefore more likely to trigger an attack than pure drinks such as vodka.

Is migraine due to food allergy?

Numerous publications suggest that food allergy is a cause of migraine. Allergy, usually in relation to certain foods, is often considered an important trigger for migraine but it remains a highly contentious subject. Numerous foods have been implicated in migraine, ranging from cheese, chocolate, citrus fruits, pickled foods such as herrings and even Chinese food. Although there is no doubt that certain foods can trigger attacks of migraine in susceptible individuals, more often than not a consistent link between intake of the suspect food or beverage and the onset of migraine has been so obvious that the person has learnt to avoid them already. A true allergic response to an 'antigen' (in this case a suspect food) is associated with the production of specific 'antibodies' in the body, which can be measured in the blood. Despite intense research, no specific antigen-antibody reaction

has been identified in people with migraine as a result of eating certain foods, so the term food 'sensitivity' or food 'intolerance' has been favoured. It is therefore unlikely that allergy testing is worthwhile in migraine except in a very small minority of cases.

Should I follow a 'Migraine Diet'?

Several research groups have carefully tested controlled elimination diets, with some success. However, the diets are so restrictive that many people cannot maintain them, even within a clinical trial. In one study, 40% of patients had dropped out within the first six weeks and by the end of the study only 10% had improved, with a similar number unchanged or worse.

So, what should I do?

If you do suspect specific foods might be triggers, you need to keep a careful diary of food and migraine. Do not look at the day before a migraine attack when you are considering what might trigger attacks – you need to look at least 48-72 hours before. This is because migraine actually starts around 24-48 hours before the headache comes on. During this time, non-headache 'premonitory' symptoms include a stiff neck (50%), feeling thirsty (26%) and hunger or food craving (18%). Chocolate comes high up on the list of foods craved. So it can be easy to confuse a dietary trigger with a dietary symptom! Whatever the link between food and migraine, too many people strictly avoid suspect foods without first discovering whether or not they contribute to their own headaches. Anyone who thinks that a certain food is precipitating attacks should eliminate that food from their diet for several weeks. If there is no change in the migraine, the food can be reinstated and another suspect food avoided. Stricter elimination diets should only be done under the supervision of a doctor or dietitian. Dietary control can be socially disabling - it is very difficult to avoid the chocolate mousse or French cheeses served with delicious wines at a dinner party. Further, fear of the effects of the food may in itself be sufficient to trigger an attack.

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Make time to eat and drink

Rather than specific foods, the most important dietary triggers are lack of food and insufficient water. Delayed or missed meals often result in a relative drop in blood sugar, triggering migraine.

This is usually the most important trigger in children, particularly when they are going through a growth spurt or involved in strenuous exercise. It explains why many children come home from school with a bad headache - they just have not had enough to eat, or have not eaten frequently enough. But insufficient food may also be an important migraine trigger in adults. Missing breakfast typically triggers attacks late morning; missed lunch may trigger attacks late afternoon. If attacks are present on waking it is worthwhile considering the time you eat your evening meal - which may be quite early. A bowl of cereal last thing at night might be all you need to treat your migraine.

Many people with migraine find that they need to eat frequent snacks every four hours or so during the day to avoid the peaks and troughs in blood sugar.

Similarly, do not underestimate the benefits from drinking plenty of water. Not only can it help headaches, it can reduce fatigue.

What if I need to lose weight?

More recent research has suggested that a high-fat diet is one factor that may affect migraine.

A study undertaken to evaluate dietary fat intake on incidence and severity of migraine headache, was conducted over a three-month period on 54 people with migraine. During the first month, the study subjects ate their usual diet and recorded all food consumption and headaches in a diary. At the end of this month, subjects were asked to limit their fat intake to no more than 20 g/day. During the third month of the study, subjects had reduced their daily fat

intake from an average 65.9 g/day to an average 27.8 g/day. The low-fat diet was associated with significant benefit on headache frequency, severity, duration, and amount of medication taken. This might partly explain other research, which suggests that attacks are more frequent and severe in overweight and obese people with migraine compared to those of normal weight. Body mass index (BMI) uses a mathematical formula that accounts for a person's height and weight. Hence, BMI equals a person's weight in kilograms divided by height in meters squared ($BMI = \text{kg}/\text{m}^2$). The study assessed 30,215 participants who were divided into five categories, based on BMI: underweight (BMI 18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25 to 29.9), obese (BMI 30 to 34.9), and morbidly obese (BMI 35). The frequency of attacks increased with increasing BMI, and were nearly 6 times more frequent in the morbidly obese migraine sufferers compared those of normal weight.

In essence...

... many people with migraine can control their attacks, with minimal food avoidance, by eating regularly in addition to identifying and avoiding non-dietary triggers. Only if these measures are ineffective, is it worthwhile seeking the advice of a qualified allergy specialist. A well-balanced diet is encouraged, with plenty of fluids, and with avoidance of fasting or skipped meals.

Every effort has been taken to ensure that this article is accurate and complete but this cannot be guaranteed. Rapid advances in medicine may cause information contained here to become outdated, invalid or subject to debate. The City of London Migraine Clinic is not responsible for the results of your decisions resulting from the use of this information.

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