

Migraines and food

Migraine is a complex and individual condition with numerous trigger factors which can occur in combinations particular to each person. It is best to carefully monitor what you eat and drink and see if you get a headache. A migraine occurring within three to six hours after having eaten is likely to be due to an offending food.

Research has shown that 30% to 40% of people who eliminated certain foods from their diet reported a considerable benefit.

Foods to avoid

This is not a comprehensive list and there are many other foods which some people may be sensitive to. These foods may not necessarily trigger an attack in a sensitive person every time they are eaten and not everyone experiencing migraines will be sensitive to all or any of these foods

Some people tend to experience food cravings, up to 48 hours before an attack (during the prodrome stage):

- Chocolate
- Cheese and other dairy products
- Citrus fruits and juices
- Coffee and tea (caffeine)*
- Alcohol*
- Pork
- Seafood
- Onions
- Marmite
- Wheat
- Histamine*
- Bananas

*Caffeine has often been recognised as being able to cause headaches, particularly if it is consumed regularly or abruptly withdrawn. Caffeine taken in high doses can cause insomnia, irritability, anxiety and headaches. When you suddenly stop your intake of caffeine you are likely to experience withdrawal symptoms, such as nausea, headache, anxiety, irritability and difficulty concentrating.

*Particularly red wine, which contains sulfites and tannins, can be a potent trigger.

*Histamine is naturally occurring in fermented foods and certain fish. Histamines can provoke migraines by dilating blood vessels.



Elimination Diets

Elimination diets involve removing suspected trigger foods for a period - usually 2-6 weeks and then gradually reintroducing them.

Efficacy: Studies show that personalised elimination diets can reduce the frequency and severity of migraines significantly.

Study Example: A study published in the journal 'Headache' in 2021 highlighted that patients following a targeted elimination diet experienced a 50% reduction in migraine days.

Other factors

Not all migraine is food related. There are other trigger factors including hormones, stress, strong emotions, environmental influences such as loud noise, bright or flickering lights, strong smells, climate changes and extreme tiredness. For most people, there is not just one trigger for their attacks but a combination of factors which individually can be tolerated but, when several occur together, an attack is triggered.

Keep a diary

It can be very useful to keep a migraine diary to help you to identify your personal migraine triggers. If you suspect a certain food is causing your migraine, it may be a good idea to investigate its use in small quantities. Checking food labels can be enlightening and sometimes surprising (see below - food additives).

Food additives and migraine

Whilst there are no definitive studies showing that food additives cause migraine, some people do report sensitivity towards them.

Food additives include:

- **Monosodium glutamate (MSG)**

Often causes a migraine in people who are very sensitive to it.

- **Nitrites**

These are usually added to cured and processed meats, such as hot dogs, bacon and ham which helps to preserve the pink colouring of the products, add flavour and inhibit growth of bacteria.

- **Aspartame**

This is an artificial sweetener used in many drinks and prepared foods. It can often be a trigger for migraines, possibly due to its effect on serotonin levels. It is best to try and avoid it or at least see if it does affect you.

- **Tyramine**

Tyramine is an amino acid which is found in aged cheeses, especially strong cheddars. It can also be found in fermented foods (including alcoholic drinks), meats, breads and even fruits (overly ripe fruits have a high tyramine content). Some believe the migraine and tyramine connection is overstated; however, if it does affect you, it is best to avoid it and better to eat fresh foods.

- **Citric acid**

Citric acid is a natural preservative and is also used to add a sour taste to drinks and foods. Some people have experienced sensitivity towards it.

Food intolerance

Food intolerance can be a migraine trigger for many people. For some, intolerances are easy to recognise. It is important to distinguish a food intolerance from a food allergy. If you have a food allergy, eating even the tiniest amount of the food may trigger a serious allergic reaction. By contrast, if you have a food intolerance, you usually can eat small amounts of the food without a reaction. Food intolerances, unlike food allergies, cause delayed reactions and can significantly contribute to migraines. Understanding these intolerances is crucial for effective migraine management.

We recommend using the FoodPrint IgG test by Cambridge Nutritional Sciences to relate food intolerances to migraines, a summary of which is below:

Personalized Insight: FoodPrint IgG testing identifies specific food intolerances unique to each individual, allowing for tailored dietary changes.

Migraine Management: by pinpointing foods that trigger migraines, patients can adjust their diet to potentially reduce the frequency and severity of migraine attacks.

Comprehensive Analysis: the test analyses a wide range of foods, providing a comprehensive view of potential intolerances that may not be evident through elimination diets alone.

Scientific Credibility: Cambridge Nutritional Sciences employs advanced technology and thorough research, ensuring the reliability and accuracy of their tests.

Inflammatory Responses:

Mechanism: Food intolerances can lead to chronic low-grade inflammation, which may exacerbate migraines.

C-Reactive Protein (CRP): Elevated levels of CRP, an inflammatory marker, have been found in migraine patients with certain food intolerances.

Low blood sugar levels and migraine

We all need a certain amount of sugar in our blood to feed all the cells in our body and provide energy. If we go a long time without any food, our blood sugar level drops and our body responds with a sudden outpouring of adrenaline, which releases sugar stored in the liver to top up blood sugar levels. In susceptible people, this sudden increase in the amount of adrenaline in the blood **can trigger a migraine attack**.

Stabilising blood sugar levels is extremely important. To help maintain your sugar levels, it is best to avoid long periods without food, such as fasting.

It is better to have regular meals with 'slow release' carbohydrates or foods with a **low glycaemic index** (or low GI), which release energy slowly (such as those listed in the green box below):

Foods to avoid (those which have a high glycaemic index (GI):

Sugary foods, chips, sweetened breakfast cereals, white bread, baked potatoes and some fruits e.g. dates and watermelon.

Tips on keeping your blood sugar levels stable:

- Always eat breakfast
- Aim to eat little (but well balanced) and often, rather than one or two large meals a day.
- Mix carbohydrate with protein and/or fat to increase slow release, for example; wholemeal toast and peanut butter is better than white bread and jam.
- Avoid chocolate or biscuits - try a piece of low GI fruit or a handful of nuts and raisins instead (see below).
- Fill yourself up on fibre, like oatmeal and vegetables - these help stabilise blood sugar levels, improve digestion and help to prevent constipation.
- Eat at least an hour and a half before exercising.
- Avoid excessively hot or cold drinks.
- Drink at least 1.5-2 litres of water throughout the day. Dehydration is a migraine trigger.

Good sources of low GI foods

- **Fruits** - grapes, plums, strawberries, oranges, peaches and blueberries
- **Vegetables** - peas and sweetcorn, broccoli and carrots
- **Wholegrain foods** - wheat pasta, brown rice and wholegrain bread
- **Pulses** - kidney beans, chickpeas, lentils and beans
- **Dairy** - milk, yoghurt and custard
- **Snacks** - nuts, hummus and oatmeal crackers



Vitamins, minerals and herbs

Below we have provided information on possible benefits of taking supplements when you suffer from migraines. It is crucial to consult with your healthcare provider before starting any new supplement regimen to ensure it's safe and appropriate for your specific health needs.

Fatty Acids and Omega 3

Healthy fats like Omega 3 have been found to help migraine due to their anti-inflammatory properties.

Fatty acids and Omega 3 can be found in:

- Fish - e.g. salmon, mackerel, trout and herring.
- Seeds and walnuts.

You could also try taking fish oil supplements or flaxseed oil.



Magnesium

Magnesium plays a crucial role in maintaining normal nerve and muscle function. Migraines have been linked to magnesium deficiencies.

Benefits:

Studies suggest that magnesium supplements can help reduce the frequency and severity of migraines, particularly for those who experience migraines with aura.

Supplements:

Magnesium supplements can be effective in migraine prevention, particularly for women who suffer from premenstrual migraines. **Research has found that 360 mg of magnesium per day can help to decrease menstrual migraine.**

Typically, a dose of 400-600 mg per day is recommended, but it is best to verify with a healthcare provider.

To help improve your magnesium intake, it is best to try and cut down on processed food and increase your intake of foods rich in magnesium, such as:

- Spices
- Nuts and grains
- Cereals
- Wheatgerm
- Beans and soy products
- Seafood
- Bananas (warning: bananas can be a major migraine trigger)
- Dark leafy vegetables

Vitamin B2 (Riboflavin)

Riboflavin is essential for energy production and mitochondrial function.

Benefits:

Supplementing with riboflavin has been shown to significantly decrease the frequency of migraines.

Supplements:

Common recommendations range from around 400 mg daily, but always check with a healthcare provider for personalised advice.

The following foods contain riboflavin:

- Lean meats
- Eggs
- Legumes
- Nuts
- Green leafy vegetables
- Dairy products
- Breads and cereals (often fortified with riboflavin).

Note: Riboflavin is destroyed by light so foods containing it should not be stored in exposed glass containers.

Coenzyme Q10 (CoQ10)

CoQ10 is vital for energy production in cells and has antioxidant properties.

Benefits:

Some research indicates that CoQ10 can reduce the frequency of migraines, although more studies are needed.

Supplements:

The typical dose is 100-300 mg per day.

Feverfew

Feverfew is a traditional herbal remedy known for its anti-inflammatory properties.

Benefits:

Feverfew has been used to reduce the frequency and severity of migraine attacks. It is believed to work by inhibiting the release of serotonin and reducing inflammation.

Supplements:

The usual dose is around 50-100 mg per day of dried feverfew leaves.

Butterbur

Butterbur is another herbal remedy used for its anti-inflammatory and muscle relaxant properties.

Benefits:

Some studies have shown that butterbur can prevent migraines, but it should only be used if it's certified to be free of harmful pyrrolizidine alkaloids (PAs).

Dosage:

Generally, 75 mg twice daily, but always consult with a healthcare provider first due to potential liver toxicity.

Gut-Brain Axis

Recent studies have explored the link between the gut-brain axis and migraines, suggesting that gut health may influence the frequency and severity of migraine attacks.

Microbiota Imbalance: Emerging research from 2022 indicates that an imbalance in gut bacteria can influence migraine development through the gut-brain axis.

Leaky Gut Syndrome: This condition, where the intestinal barrier is compromised, can lead to systemic inflammation and has been linked to increased migraine frequency.

Probiotics: Some studies suggest that probiotics can help restore gut health and potentially reduce migraine occurrences.

The gut-brain axis plays a significant role in modulating brain function and pain pathways, which can affect migraines. Modulating gut health through diet, probiotics and possibly prebiotics may offer new avenues for migraine management. More studies are needed to solidify the connection and develop targeted therapies based on microbiome modulation.

If you have questions or are unclear on any of the points, be sure to let us know. You can email us at: enquiries@chiropractic-clinic.com or visit our website www.chiropractic-clinic.com