

Migraine Factsheet



PLANT-BASED
Health Professionals UK

Promoting Sustainable Health and Nutrition

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Migraine

is a complex **neurovascular disease** characterised by **recurrent, one-sided headaches lasting up to three days.**

The **International Classification of Headache Disorders** distinguishes **two** categories of migraine: **with aura** and **without aura.**

Migraine without aura

is defined as **recurrent episodic headaches that are typically unilateral and pulsating in nature.**

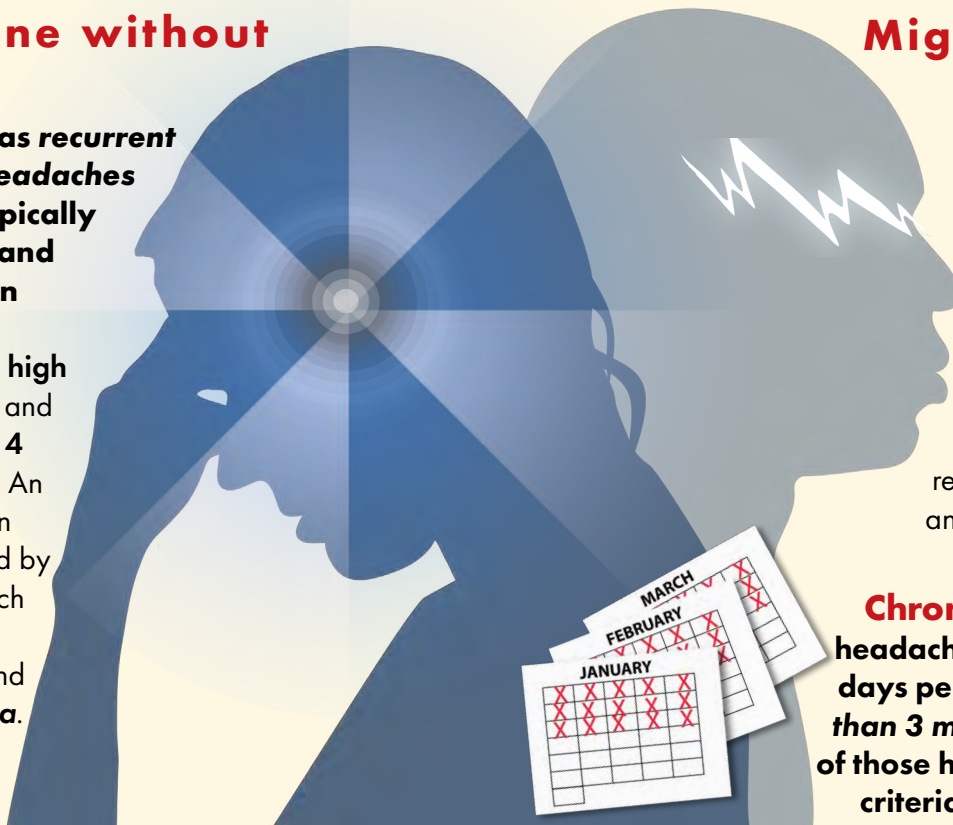
They result in **high pain scores** and last between **4 to 72 hours.** An attack is often accompanied by symptoms such as **nausea, vomiting, and photophobia.**

Migraine with aura

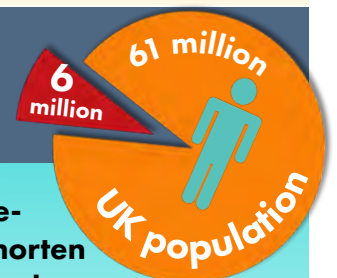
is preceded by a **distinct neurological feature that causes visual, sensory, speech, or motor disturbances.**

These are fully reversible and can last anywhere from minutes up to one hour.

Chronic migraine: headaches on **15 or more days per month for more than 3 months** if **at least 8** of those headaches fulfil the criteria of a migraine.



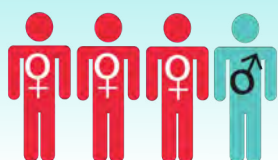
In the UK: **6 million** people suffer from migraine
190,000 people experience an **acute migraine attack every day**



Women **3 times** more affected than men, particularly between the ages of **15 and 49.**



Migraines are not life-threatening and do not shorten people's life expectancies, but they can **significantly affect the quality of people's lives.**



Migraine is one of the **leading causes of disability** in the world, affecting **1 in 7** people globally.

Causes of migraine

The exact cause of migraine is unclear. Possible causes: **familial, abnormal vascular changes in the brain, inflammation, environmental factors.**



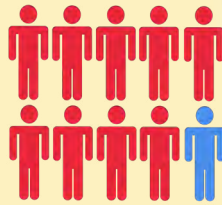
Treatment

Since there is no effective drug treatment, **identifying** and **avoiding triggers** are one of the most recommended strategies for prophylactic migraine management.

In addition, **lifestyle changes** are recommended as an effective way to manage migraines.

Migraine triggers

90% of people with migraine report specific factors triggering an attack; the majority can point to **4 to 9 triggers**.



Those reporting **at least one trigger factor** experience more migraine attacks which last longer and are more intense.

Stress is the most common reported trigger.

Other frequently reported triggers are:

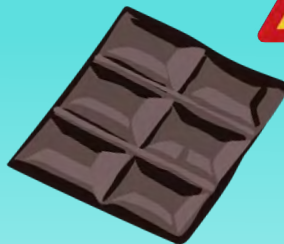
Certain foods, hunger, changes in sleep rhythm, fatigue, rapid changes in weather, extreme weather conditions such as strong winds, high humidity, light, smoke, noise, and strong odours.



Dietary triggers:



Dairy products, especially cultured products like cheese and yogurt



Chocolate



Sugar



Processed and cured meats



Organ meats



Alcohol



Caffeine



Ice cream



Monosodium glutamate (MSG - a food additive found in fast foods and some condiments)



Artificial sweeteners

Lifestyle Management in Migraine

Modifying triggers can significantly *reduce the frequency and intensity* of migraine headaches and **improve the quality of life** in people with migraine.



Diet

There is no single migraine diet, however, the following advice has been shown to **help prevent** migraine.



Avoid alcohol and reduce your coffee consumption.



Avoid foods that you have identified as *triggers*.



Try to eat regular meals.

Drink plenty of water.



Reduce or cut out foods with inflammatory potentials such as animal products, processed foods (even if labelled as vegan) and high fatty meals.

A randomised cross-over study by the Physicians Committee of Responsible Medicine found that a **low-fat plant-based diet** can significantly reduce pain intensity and use of painkillers in those suffering from migraine.

Studies have shown that **fat intakes below 30g per day** (about 20% of your daily calorie intake) will reduce migraine frequency and intensity.

There is good evidence that a diet rich in **omega 3 fatty acids** reduces migraine frequency, so eat foods high in omega 3 fats e.g. nuts especially walnuts; seeds like flax, chia and hemp seeds; green leafy vegetables, or take a daily supplement of algae-based omega 3 supplement 250mg.



Base your meals on **anti-inflammatory** foods such as





Stress Management

There are many evidence-based techniques on how to manage and reduce stress

such as **cognitive behavioural therapy, biofeedback and mindfulness.**

Various virtual tools such as apps like Headspace and Calm can guide you through **relaxation techniques and breathing exercises.**



Journaling



Gentle exercises
(e.g yoga, stretching)

Listening to your favourite music can help you relax.

Choose one that **works best** for you

Exercise

Regular aerobic exercise has shown to be beneficial in migraine prevention.

Find an activity you enjoy.

Your exercise routine should not be an added source of stress.



If new to exercise, **start with walking.** Even 10 minutes will suffice.

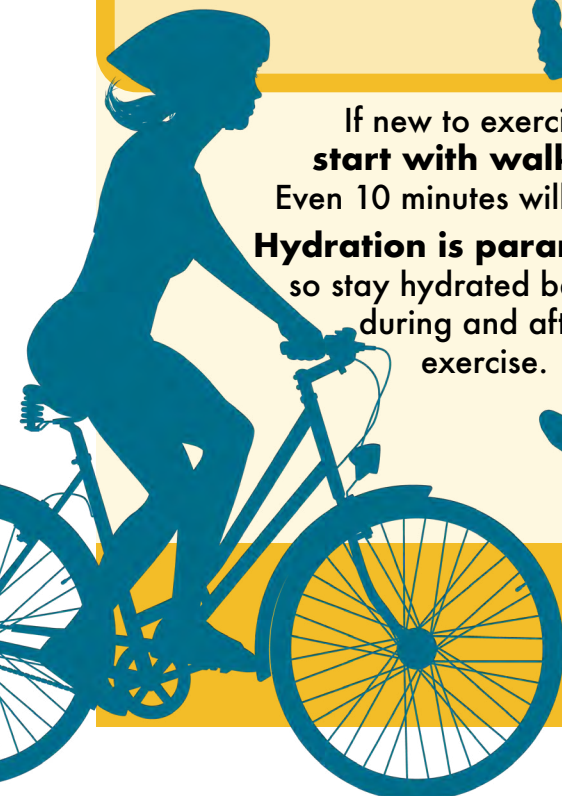
Hydration is paramount, so stay hydrated before, during and after exercise.

Avoid sudden and intense activities

until your body has adapted to your exercise routine.

Make sure to warm up and cool down to prevent exercise headaches.

Start small and gradually increase intensity.



Your ultimate goal is to do **150-300 minutes of aerobic exercise** and **2 days of strength training** a week.



Sleep



Avoid caffeine, alcohol, nicotine, and other chemicals that interfere with sleep at least **4 hours before bedtime.**

No large meals close to bedtime because digestion can disrupt sleep.

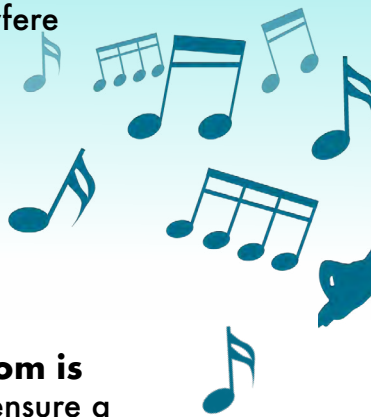


No late-night television and switch off your mobile devices and computer 2 hours before bedtime.

About **30 minutes before bedtime disconnect from the outside world.**



Make sure **the room is dark and cool** to ensure a good night sleep.



Dim the lights, listen to some classical music, meditate, and focus on yourself.

Should you keep a **migraine diary**?

Many clinicians will ask you to keep a headache diary to help you to **identify patterns to your migraine and potential triggers.**

If you choose to do so, make sure to **record everything every day** - your food, activities and headache scores - even on those days you do not have a migraine.

However, **do not force yourself to keep a diary if you find it adds to your stress.**



Resources

Bic Z, et al., The influence of a low-fat diet on incidence and severity of migraine head-aches. J Womens Health Gend Based Med. 1999 Jun;8(5):623-30.

Cavestro C, et al., Novelty in Inflammation and Immunomodulation in Migraine. Curr Pharm Des. 2019;25(27):2919-2936.

Charles A. The pathophysiology of migraine: implications for clinical management. Lancet Neurol. 2018 Feb;17(2):174-182.

Ferrara LA, et al., Low-lipid diet reduces frequency and severity of acute migraine attacks. Nutr Metab Cardiovasc Dis. 2015 Apr;25(4):370-5.

International Headache Society (2018), Available at <https://ichd-3.org/1-migraine/>

Price A, Burls A. Increased water intake to reduce headache: learning from a critical appraisal. J Eval Clin Pract. 2015 Dec;21(6):1212-8.

Ramsden CE, et al., Dietary alteration of n-3 and n-6 fatty acids for headache reduction in adults with migraine: randomized controlled trial. BMJ. 2021 Jun 30;374:n1448.

Simopoulos AP. The importance of the ratio of omega-6/omega-3 essential fatty acids. Biomed Pharmacother. 2002 Oct;56(8):365-79.

The Migraine Trust (2019), Available at <https://migrainetrust.org/>

Zaeem Z, Zhou L, Dilli E. Headaches: a Review of the Role of Dietary Factors. Curr Neurol Neurosci Rep. 2016 Nov;16(11):101.