

# 11 Natural Alternatives Proven To Help Prevent Migraine

When your migraine prescription fails, what can you do about your disabling migraine condition? Here are 11 migraine treatments that will help you prevent more attacks without needing a prescription.

The best thing about these treatments is the side effects are often minimal and most of these can be used to complement your existing prescription(s). Unlike strong medications.

It's important to note that each individual is different, so be sure to speak with your medical professional before making any changes to your migraine treatment regime. Sources are numbered at the end of the article and referenced throughout the article as (1), (2) etc. Here's the list:

## 1) EXERCISE

**Why it works:** science is only scraping the surface on deep benefits of exercise on the body and, in particular, for the brain.

What we do know is that exercise releases endorphins which are chemicals in the brain that act as natural painkillers. These are neurotransmitters and they are surprisingly potent.

It may not be new to you that endorphins are released when exercising. But endorphins are also an endogenous opioid. That means they are a naturally originating opioid that is spread around the brain, as nature intended, after exercise. These opioids make you feel good and reduce the sensation of pain.

Many people with migraine are often prescribed synthetic or manmade opioids such as Morphine and Codeine.

**Results:** From a study of over 46,000 participants, results found that low levels of physical activity were associated with a higher prevalence of migraine headache. There was also a strong correlation between the level of inactivity and migraine frequency.(1)

Another study compared exercise to one of the most commonly used preventative migraine drugs (topiramate). Participants were divided into 3 groups who:

1. Either exercised for 40 mins, 3 times a week. Or who were given
2. Topiramate or
3. Relaxation training

The results found that all 3 treatments were equally effective. Only topiramate caused side effects in 33% of patients. (2) Interestingly exercise and relaxation training were natural alternatives freely available.

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## 2) MEDITATION/ RELAXATION TRAINING

**Why it works:** How is "thinking happy thoughts or behaving like a Buddhist monk going to help migraine?"

For thousands of years meditators have claimed surprising benefits from their practice. Again modern medicine is still playing catchup and new benefits are being revealed all the time from scientists studying meditation.

Migraine is closely linked to the nervous system. The nervous system is a network of cells and fibers in our body which communicate via nerve signals to other parts of the body. Our central nervous system is the part which looks after the brain and spinal cord. (3)

In migraine, it is thought that a disorder in our nervous system causes hypersensitivity to otherwise normal stimuli. (3)

Meditation soothes our nervous system. According to neuroscientists, as you continue to meditate your brain changes physically. Using brain imaging, they've observed undeniable changes in the brain. Studies from Stanford (4) and Harvard (5) showed that meditators had greater control on emotions, lowered stress levels and higher neuron activity in the prefrontal cortex.

This is only the beginning. In addition to migraines and stress, other studies found significant improvements to:

- anxiety (6)
- depression (6)
- focus (7)
- creativity (8)
- relationships (9)

**Results:** A single intervention of meditation treatment delivered a 33% decrease in pain and 43% in emotional tension. (10) Another randomized controlled trial for meditation in migraine found significant improvements in disability and other measures.

In the previously mentioned study from exercise, patients who underwent relaxation training found the result as effective as one of the most commonly prescribed preventative medications - topiramate (2).

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## 3) MAGNESIUM

**Why it works:** Magnesium deficiencies can be caused by a range of factors including:

- low dietary intake
- stress
- alcohol
- caffeine
- genetic absorption & renal excretion
- gastro-intestinal disorders (IBS, colitis, celiac etc)
- chronic illness

You might have already noticed that many of these factors are involved in migraine. It's perhaps not surprising that this may be important in migraine prevention.

The best way to test if magnesium helps you or not is to try it. Dr Mauskop from the New York Headache Centre suggests starting with 400mg of chelated magnesium (diglycinate, aspartate etc.) or magnesium oxide. Once per day. If ineffective then he suggests taking another dose at night time or even taking 3 doses throughout the day. But always with food.

**Results:** Low brain magnesium levels are found in people who are having a migraine. (12)

A separate double blind, placebo controlled study found that those taking a high dose of magnesium each day (600mg of water soluble granular powder) for the study period had a 52% reduction in migraine frequency after 2 months. This was 30% above the placebo group. (13)

## 4) RIBOFLAVIN

**Why it works:** Riboflavin (Vitamin B2) is an essential vitamin involved in many different biological processes and is essential for maintaining good health.

In relation to migraine it is thought that those with migraine have low brain energy levels caused by a deficit in mitochondrial energy metabolism. (14) Those with migraine have shown decreased brain mitochondrial energy reserves between attacks. (14)

Increasing Riboflavin through diet or supplementation can enhance mitochondrial energy efficiency.

**Results:** A randomized control trial of Riboflavin compared 3 months of 400mg a day to a placebo. The results found that the number of people whose migraine frequency reduced by half was 15% in the placebo group and an impressive 59% in the Riboflavin group. (14)

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Another separate study compared Riboflavin to other abortive treatments and found that Riboflavin was effective in migraine prevention with a significant number of patients experiencing a 50% reduction in headache frequency. (15)

## 5) ADDRESSING HEADACHE CAUSING GENETIC MUTATIONS

**Why it works:** A gene called the MTHFR (C677T) has been found to be genetic risk factor for migraine.

Those with migraine are twice as likely to have the homozygous mutation than the general population. Within migraine, the frequency of the genetic mutation for those had migraine with aura was 4x times higher than the general population (40.9% versus 9.6%). (16)

Elevated homocysteine levels were also found to be significant in those who had the mutation. A blood test for the MTHFR genes can tell an individual whether this genetic mutation is present or not.

**Results:** In individuals where the genetic mutation was present daily supplementation for 6 months reduced homocysteine levels by 39%, prevalence of disability fell from 60% to 30% with reduced headache frequency and pain severity. (18)

Daily dosage was:

- 2mg of folic acid
- 25mg Vitamin B6
- 400mcg of Vitamin 12

## 6) ACUPUNCTURE

**Why it works:** The efficacy of acupuncture for migraine has been debated for years but the fact of the matter it, it does help, scientists just aren't sure how.

Perhaps taking 30-60 minutes out to lie down in a quite, calming environment with mild scents and music to relax every inch of your body is a good thing for those with migraine.

The exact science of acupuncture is yet to be proven for migraine, but practitioners claim a wide range of benefits involving thin needles placed at specific body sites. They claim that by targeting these sites they are able to clear energy blockages and encourage the normal flow of Qi (energy) through an individual.

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**Results:** There are at least 22 trials have investigated acupuncture in treating migraine headache. 6 trials have looked at adding acupuncture to an existing treatment regime. The findings showed those who had acupuncture had significantly fewer headaches. (19)

14 trials compared true acupuncture to placebo or fake acupuncture treatments where needles were inserted superficially and did not penetrate the skin or at incorrect points. In these trials both groups had fewer headaches than before treatment, but there was no difference between the effects of these two treatments. Strange but true.

In 4 trials where acupuncture was compared to a proven medicinal treatment, participants receiving the acupuncture treatment reported a noticeable improvement in their condition and fewer side effects. (19)

## 7) ALPHA LIPOIC ACID

**Why it works:** Also known as lipoic acid,  $\alpha$ -lipoic acid or thiotic acid. It is an antioxidant which is thought to prevent certain kinds of cell damage; improve functioning of neurons; help break down carbohydrates and make energy for other organs in the body.

Given its antioxidant role, it may also provide protection for the brain under conditions of damage or injury.

**Results:** A randomized double-blind placebo controlled trial of alpha lipoic acid found that 600mg within-group analyses showed a significant reduction in attack frequency, headache days and headache severity. There was a 50% responder rate for attack frequency. Due to the underpowered study, results were not able to be concluded at an aggregate level for the reduction in migraine. There were no adverse side effects reported in the study. (20)

## 8) BUTTERBUR

**Why it works:** Also know as Petasites Hyridus, Butterbur is a root that is used for treatments. Butterbur is thought to act through calcium channel regulation and inhibit mediators involved in the inflammatory cascade associated with migraine.

Some preparations of Butterbur contain chemicals called pyrrolizidine alkaloids (PAs) which can damage the liver and be carcinogenic so consumers are advised to only use butterbur products which are independently certified and labeled "PA-free".

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**Results:** Several studies have found butterbur to be an effective migraine treatment. One of the more recent found that 75mg twice daily as superior to placebo in a randomized trial of 245 participants.(21)

Another multicenter prospective open label study of butterbur in 109 children and adolescents with migraine reported 77% of all patients experienced a reduction in migraine frequency of at least 50%. (22) In both studies butterbur was well tolerated with no serious side effects.

## 9) BOSWELLIA SERRATA

**How it works:** Boswellia is a type of tree which is used in Indian Frankincense. The resin from this tree has anti-inflammatory benefits which have been used for centuries to help with pain conditions such as headache, cluster headaches, asthma, menstrual cramps and arthritis.

Boswellia may be a good alternative for those who were looking for Butterbur but cannot find a high quality PA-free product (see Butterbur above). Unlike Butterbur there are no toxic ingredients and it is safe to consume in any form.

This may also be a viable option for those who cannot tolerate NSAIDs such as ibuprofen as Boswellia shares similar anti-inflammatory properties.

**Results:** There are not many scientific articles on Boswellia serrata for migraine treatment as it hasn't been traditionally used for this purpose. One study did find long term effectiveness with 4 chronic cluster headache patients who failed to respond to at least 3 types of preventative medications used for cluster headache (eg. verapamil, topiramate and lithium). Sustained improvement was found in all 4 patients who took 350-700mg of Boswellia serrata 3 times per day. (23)

## 10) FEVERFEW

**How it works:** Feverfew is a leaf that has been used for centuries in Europe to treat headaches, arthritis and fever. The beneficial properties for migraine are it's restriction of serotonin binding and mast-cell stabilization (which inhibits histamine release) as well as it's anti-inflammatory, analgesic properties.

The exact mode of action for Feverfew is still unknown but evidence is mounting in support of Feverfew.

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**Results:** A Cochrane systematic review of 5 placebo controlled, randomized, double-blind trials concluded that there was insufficient evidence to determine whether feverfew was superior to placebo. A closer look at these studies reveals that results were mixed and that inconsistent levels of dosage, extracts and format may have contributed to a lack of clear conclusions. (24)

Since then, a randomized, double-blind, multicenter, placebo controlled study found that feverfew did effectively reduce migraine frequency over a 4 month period. Dose was 6.25 mg, 3 times daily. (25) The recommended dosage used was 125mg -250mg per day of powder, standardized to contain a minimum partenolide content of 0.2% or 400ug. (26)

## 11) BIOFEEDBACK

**Why it works:** Biofeedback is an established non medicinal technique commonly used to treat migraine and tension type headaches. It works by attaching several monitoring devices to the body to measure heart rate, skin temperature, blood pressure, breathing, brain waves and muscle tension.

The patient is able to see these measurements live and works with a specialist who teaches the patient how to change the body's functions to deliver a desired physical outcome through self control techniques.

It is thought by having a greater control over their bodily responses, patients learn to better manage migraine.

**Results:** a meta analysis of research found over 55 high quality studies for biofeedback and migraine including randomized controlled trials as well as pre-post trials.

Researchers concluded from this meta analysis that Biofeedback "significantly and substantially reduces the pain and psychological symptoms of highly chronic migraine patients within 11 treatment sessions". They went further to recommend biofeedback as "an evidence based behavioral treatment for the prevention of migraine". (27)

## NEXT STEPS...

These 11 treatments are options you should be know about if your condition is not improving.

In fact, regardless of your situation, you should be considering these options. Even if your medicinal treatments are working, often these natural alternatives can help improve your results even further.



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There are several powerful and effective options listed above. Some of which are free or inexpensive. Unlike many medicines, you rarely see significant side effects from most of these natural alternatives.

The challenge now is for you to actually implement these approaches.

People generally want the easiest option.

Many who read this will simply opt for the next medicinal treatment and the side effects that go along with it if it means they can stay up late, eat or drink what they want and avoid exercising.

Not only is that terrible for your migraine condition, but it's also a bad for your overall health and life expectancy.

Meditation, exercise and magnesium all have success rates well over 50%. When they are successful it cuts your migraine frequency in half and together it's possible to experience reductions of 80% or more.

Good luck!





## Appendix: References

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