

DIETARY SUPPLEMENTS SPECIFICALLY FOR HEADACHES: A CLINICIAN'S GUIDE

There are a number of supplements that show promise for the treatment of migraine.^{1,2} To learn more about **omega-3 fatty acids** and **magnesium**, which are two of them, see the “Dietary Supplements for Pain” on the page prior to this one. Others, more specifically for the treatment of headaches, include:

Vitamin B2 (Riboflavin)

B2 seems to influence mitochondrial function, which may be linked to migraine pathophysiology.³ It is an important contributor to the oxidative energy metabolism pathways. B2 has been found to decrease the frequency of migraines, 15% for placebo and 59% for riboflavin with number-needed-to-treat of 2.3.⁴ Riboflavin also enhances the migraine prevention effects of beta-blockers.⁵ A recent review concluded it had favorable effects for adults and children, but it noted that more research was needed before recommendations could be made about its use as an adjunctive migraine therapy.⁶

The dose is 400 mg a day, which is a much higher dose than found in most multivitamins or B-complex formulas. It is water soluble, so excess B2 is simple excreted through the urine.

Feverfew

Feverfew (*Tanacetum parthenium*) is an herb that has been used for centuries for migraine prevention, and it has shown promise in a number of studies.⁷⁻¹⁰ It has also been found to be ineffective in other studies, which raises questions around manufacturing practices and concentration of compounds in a given product. Feverfew's mechanism of action is unknown. It may influence platelet aggregation, release of serotonin, or formation of inflammatory eicosanoids.

The part of the plant used is the leaf, which is dried and encapsulated. The dose is 25 mg twice daily. Feverfew should be tapered rather than stopped abruptly, because rebound headaches can occur. It can prolong INR, so avoid with anticoagulants. It tends to decrease migraine severity, as well as the intensity of associated symptoms like photophobia and phonophobia.

Coenzyme Q-10

Like riboflavin, coenzyme Q-10 (CoQ10) is thought to boost energy production via the electron transport chain. It has been found to decrease migraine frequency by half in about 60% of the people who take it.¹¹ After three months of 150 mg/day of CoQ10 each morning, the average number of days people had headaches dropped from seven days to three days per month.

CoQ10 is well tolerated, with few side effects. Doses over 300 mg/daily can cause GI symptoms. It can positively affect hypertension as well, but does not tend to cause hypotension.

Butterbur

Butterbur (*Petasites hybridus*) reduced headache frequency by 48% at a dose of 75 mg twice daily over four months.^{12,13} It is thought to work by preventing release of inflammatory leukotrienes. It also works as antihistamine and is helpful for allergic symptoms.

Butterbur is not associated with severe adverse effects.¹⁴

Peppermint Oil

One small study of 35 people with migraines studied the effect of peppermint oil, which was applied to the forehead and temples, with a repeat application 10-15 minutes later.¹⁵ Two hours after application, all nausea and vomiting, and phono- and photophobia symptoms improved.

Prescribing Tips – Headache Supplements

- Clinical success with combination of the supplements listed here has proven remarkable.
- It is reasonable to start with one supplement at a time. Watch tolerability for a week, and then another can be added.
- One simple approach to titration is to start riboflavin. Add magnesium one week later, and if needed, CoQ10 the week after that.
- CoQ10 is expensive, and patients may be tempted to buy just 30mg capsules, which are not as likely to be helpful.

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