

Nutrition for Migraine

It is always best, if you can, to get nutrients through the food you eat. However, modern diets often fall short of recommended intakes of key nutrients and, when tested, many people have been found to be deficient. Other supplemental compounds have been found to be beneficial but are not readily available from food sources.

This article explains the key nutrients and supplements for **migraine**, including when and how to supplement with them.

Nutrients

Feverfew

Feverfew is an herb with anti-inflammatory properties. Feverfew appears to be strongly effective in reducing migraines in sufferers with high frequency migraines possibly accompanied by auras. Feverfew is not as effective, although still somewhat effective, in persons with less frequent migraines.

Feverfew is safe to supplement, but topical application may result in an allergic reaction. If feverfew supplementation results in reddening or scaly skin, stop supplementation. Pregnant women should not supplement feverfew.

Riboflavin (Vitamin B2)

Riboflavin is important for energy production and normal cell function and growth. Riboflavin supplementation appears to be quite effective in reducing migraine frequency based on preliminary research. The Quality Standards Subcommittee of the American Academy of Neurology and the American Headache Society concluded that riboflavin is probably effective for preventing migraine headaches and recommended offering it for this purpose.

Groups that are at risk for Riboflavin inadequacy, and would therefore most likely benefit from riboflavin supplementation, include adolescent and young adult women (particularly in the UK where riboflavin is not fortified in food to as high a level as in the US and Canada), vegetarians and vegans, and the elderly.

The use of some medications can also result in decreased levels of riboflavin. These include antibiotics, anti-convulsants and psychotherapeutic drugs.

CoQ10

Coenzyme Q10 (COQ10) is a molecule produced in the body. It aids mitochondria during energy production and is a part of the endogenous antioxidant system.

A number of clinic studies in show a small but significant improvement in frequency of migraines episodes and migraine symptoms.

No serious side effects of CoQ10 have been reported (mild side effects such as insomnia or digestive upsets may occur.) However, CoQ10 may interact with warfarin, insulin and some types of cancer treatment.

Magnesium

Magnesium is a key nutrient for healing & repair. Deficiency in magnesium leads to disturbed healing and can cause numbness, tingling as well as increased inflammation, potentially leading to headache, migraine and fibromyalgia.

In one clinical study, migraine severity but not frequency, was reduced with 600mg elemental magnesium supplementation in persons with migraines without auras.

The intake of magnesium in people eating a western-style diet is consistently shown to be lower than recommended. Deficiency is more likely in those with chronic disease as low magnesium state is associated with several chronic diseases including diabetes, hypertension, coronary heart disease, and osteoporosis. The use of some medications can also result in decreased levels of magnesium. These include antacids, antibiotics, anti-hypertensives (for high blood pressure), Digoxin (heart medication), oral contraceptives and HRT). The likelihood that you are deficient in magnesium increases if you suffer with more than one sign of deficiency (e.g. constipation, headache / migraine, muscle tension / cramping, numbness / tingling, or poor sleep.)

Magnesium is usually safe, but it may interfere with the absorption of some pharmaceuticals, notably bisphosphonates (used for osteoporosis), calcium channel blockers (for high blood pressure) and some antibiotics. If you take any medication, talk to your doctor before you are supplementing magnesium.

Because magnesium is 'bulky' most multivitamins only contain a small amount. It is therefore usually better to supplement magnesium separately. Chelated forms like magnesium malate or glycinate are better absorbed.

Omega 3

Fatty fish (e.g. salmon, mackerel, anchovies, sardines and herring) are the primary source of healthy, “anti-inflammatory” omega-3 fats. These should be balanced with omega-6 fatty acid (found in processed food and vegetable oils intake) in approximately a 2:1 ratio. Most Western diets however are highly skewed in favour of omega-6 fatty acid over omega-3, sometimes in orders of 20:1! This imbalance is considered very “pro-inflammatory” and there is general agreement that individuals should consume more omega-3 and less omega-6 fatty acid to promote a healthy inflammatory response.

A meta-analysis of randomized controlled trials looking at the effectiveness of omega-3 fatty acids on the frequency, severity, and duration of migraine suggests that omega-3 intake leads to a significant reduction in the duration of migraine.

Supplementing Guide

Option 1

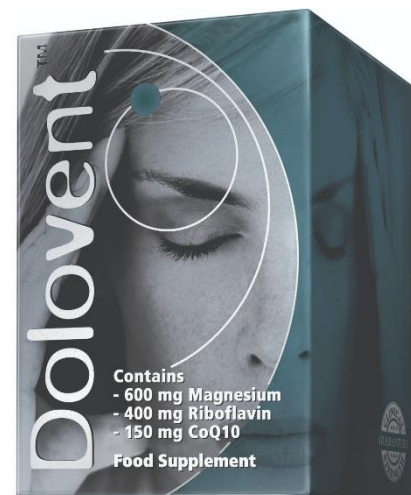
Supplement with Dolovent Migraine Management Capsules.

Includes:

- 600mg of magnesium.
- 400mg of vitamin B2 (riboflavin).
- 150mg of coenzyme Q10.

Pros – Cheaper and more convenient than supplementing separately.

Cons – Does not contain Feverfew or Omega-3.



Option 2

Supplement separately with:

1. Feverfew

Take 100-300 mg of a feverfew supplement containing 0.2%-0.4% parthenolide, once a day.

2. Riboflavin (Vitamin B2)

Take a Riboflavin supplement (or a Vitamin B complex) containing 25-400mg Riboflavin daily with food.

3. CoQ10

Take 100mg-200mg CoQ10 (in either the ubiquinone or ubiquinol forms), once daily with food.

4. Magnesium

If...

- your intake of green leafy vegetables, nuts and seeds is limited, or
- you suffer with any of the signs of deficiency (i.e. headache / migraine, muscle tension / cramping, numbness / tingling, osteoporosis or high blood pressure, poor sleep), or
- you suffer with diabetes, high blood pressure, heart disease, osteoporosis, or
- you are taking antacids, anti-hypertensives (for high blood pressure), Digoxin (heart medication), oral contraceptives or HRT,

Supplement with 200-400mg magnesium. Chelated forms like magnesium malate or glycinate are better absorbed.

5. Omega -3

If you are not eating 2-3 servings of oily fish (e.g. salmon, mackerel, anchovies, sardines or herring) per week supplement with a good quality fish or cod liver oil. We recommend 'Rosita Cod Liver Oil' which is a great source of omega-3 fats as well as vitamins A and D.

Supplement either option for 3 months and assess any changes in migraine frequency or severity.

Amrita Nutrition

We are delighted to partner with Amrita Nutrition to provide our patients access to a full range of practitioner-grade supplements with **10% off** all orders. To activate your discount simply register with [Amrita Nutrition](#) using invite code – YCMZQD.



References

Feverfew

Diener, H., Pfaffenrath, V., Schnitker, J., Friede, M., & Zepelin, H. H. V. (2005). Efficacy and safety of 6.25 mg tid feverfew CO₂-extract (MIG-99) in migraine prevention—a randomized, double-blind, multicentre, placebo-controlled study. *Cephalalgia*, *25*(11), 1031-1041.

Johnson, E. S., Kadam, N. P., Hylands, D. M., & Hylands, P. J. (1985). Efficacy of feverfew as prophylactic treatment of migraine. *Br Med J (Clin Res Ed)*, *291*(6495), 569-573.

Pfaffenrath, V., Diener, H. C., Fischer, M., Friede, M., & Henneicke-von Zepelin, H. H. (2002). The efficacy and safety of *Tanacetum parthenium* (feverfew) in migraine prophylaxis—a double-blind, multicentre, randomized placebo-controlled dose–response study. *Cephalalgia*, *22*(7), 523-532.

Murphy, J. J., Heptinstall, S., & Mitchell, J. R. A. (1988). Randomised double-blind placebo-controlled trial of feverfew in migraine prevention. *The Lancet*, *332*(8604), 189-192.

Riboflavin (Vitamin B2)

Condo, M., Posar, A., Arbizzani, A., & Parmeggiani, A. (2009). Riboflavin prophylaxis in pediatric and adolescent migraine. *The journal of headache and pain*, *10*(5), 361.

Maizels, M., Blumenfeld, A., & Burchette, R. (2004). A combination of riboflavin, magnesium, and feverfew for migraine prophylaxis: a randomized trial. *Headache: The Journal of Head and Face Pain*, *44*(9), 885-890.

MacLennan, S. C., Wade, F. M., Forrest, K. M., Ratanayake, P. D., Fagan, E., & Antony, J. (2008). High-Dose riboflavin for migraine prophylaxis in children: a double-blind, randomized, placebo-controlled trial. *Journal of child neurology*, *23*(11), 1300-1304.

Di Lorenzo, C., Pierelli, F., Coppola, G., Grieco, G. S., Rengo, C., Ciccolella, M., ... & Schoenen, J. (2009). Mitochondrial DNA haplogroups influence the therapeutic response to riboflavin in migraineurs. *Neurology*, *72*(18), 1588-1594.

Schoenen, J., Jacquy, J., & Lenaerts, M. (1998). Effectiveness of high-dose riboflavin in migraine prophylaxis A randomized controlled trial. *Neurology*, *50*(2), 466-470.

Bruijn, J., Duivenvoorden, H., Passchier, J., Locher, H., Dijkstra, N., & Arts, W. F. (2010). Medium-dose riboflavin as a prophylactic agent in children with migraine: a preliminary placebo-controlled, randomised, double-blind, cross-over trial. *Cephalalgia*, *30*(12), 1426-1434.

Boehnke, C., Reuter, U., Flach, U., Schuh-Hofer, S., Einhäupl, K. M., & Arnold, G. (2004). High-dose riboflavin treatment is efficacious in migraine prophylaxis: an open study in a tertiary care centre. *European Journal of Neurology*, *11*(7), 475-477.

CoQ10

Slater, S. K., Nelson, T. D., Kabbouche, M. A., LeCates, S. L., Horn, P., Segers, A., ... & Hershey, A. D. (2011). A randomized, double-blinded, placebo-controlled, crossover, add-on study of CoEnzyme Q10 in the prevention of pediatric and adolescent migraine. *Cephalalgia*, *31*(8), 897-905.

Sândor, P. S., Di Clemente, L., Coppola, G., Saenger, U., Fumal, A., Magis, D., ... & Schoenen, J. (2005). Efficacy of coenzyme Q10 in migraine prophylaxis: a randomized controlled trial. *Neurology*, *64*(4), 713-715.

Dahri, M., Tarighat-Esfanjani, A., Asghari-Jafarabadi, M., & Hashemilar, M. (2019). Oral coenzyme Q10 supplementation in patients with migraine: Effects on clinical features and inflammatory markers. *Nutritional neuroscience*, *22*(9), 607-615.

Shoeibi, A., Olfati, N., Sabi, M. S., Salehi, M., Mali, S., & Oryani, M. A. (2017). Effectiveness of coenzyme Q10 in prophylactic treatment of migraine headache: an open-label, add-on, controlled trial. *Acta Neurologica Belgica*, *117*(1), 103-109.

Parohan, M., Sarraf, P., Javanbakht, M. H., Foroushani, A. R., Ranji-Burachaloo, S., & Djalali, M. (2019). The synergistic effects of nano-curcumin and coenzyme Q10 supplementation in migraine prophylaxis: A randomized, placebo-controlled, double-blind trial. *Nutritional neuroscience*, 1-10.

Dahri, M., Hashemilar, M., Asghari-Jafarabadi, M., & Tarighat-Esfanjani, A. (2017). Efficacy of coenzyme Q10 for the prevention of migraine in women: A randomized, double-blind, placebo-controlled study. *European Journal of Integrative Medicine*, *16*, 8-14.

Magnesium

Köseoglu, E., Talaslıoğlu, A., Gönül, A. S., & Kula, M. (2008). The effects of magnesium prophylaxis in migraine without aura. *Magnesium research*, *21*(2), 101-108.

Omega 3

Maghsoumi-Norouzabad, L., Mansoori, A., Abed, R., & Shishehbor, F. (2018). Effects of omega-3 fatty acids on the frequency, severity, and duration of migraine attacks: A systematic review and meta-analysis of randomized controlled trials. *Nutritional neuroscience*, *21*(9), 614-623.