



Co-enzyme Q10



Co-enzyme Q10 is also known as ubiquinone and ubidecaren-one. Co-enzyme Q10 is a vitamin like substance, present in all human cells and involved in the production of the body's own energy inside mitochondria, the "powerhouses" of our cells. It can be obtained from the diet; meat and fatty fish products are the most concentrated sources. There is some evidence that co-enzyme Q10 deficiency may be important in migraine. One rigorous research study has suggested that taking high-doses of co-enzyme Q10 supplements may be useful in preventing frequent headaches and / or migraine in adults, but another failed to show a benefit for children or adolescents with migraine.



Research

A single, small but rigorous research study suggested that co-enzyme Q10 may be effective at preventing migraine in adults over a 3-month period, with no serious side effects.^[1]

In the study, people with migraine were required to take 100mg of co-enzyme Q10 or the dummy tablets (placebos) three times a day for a period of three months - the participants did not know which tablet they were taking ('double blind').

By the third month of treatment people taking co-enzyme Q10 had a significant reduction in the number of migraine episodes they had including the number of days with headache and days with nausea, while the placebo did not. Nearly half of those taking coenzyme Q10 had their number of days with headache cut by half, compared with about one in 7 of those taking placebo.

The results suggest that for every three adults taking this dose of co-enzyme Q10, one would get their number of days with headache halved.

Another group of researchers measured coenzyme Q10 levels in the blood of 1550 children and adolescents with migraine and found about one-third to have low levels.^[2]

The same group of researchers gave 122 children and adolescents with migraine 100mg of coenzyme Q10 per day or dummy tablets (placebos) for about four months each^[3], but no difference was found between the two in reducing the severity, frequency or duration of migraine episodes when added to standard hospital outpatient care over a 3 to 4 month period.

FAQs

Can I take co-enzyme Q10 with other medicines?

Most herbs and supplements have not been thoroughly tested for interactions with other herbs, supplements, drugs or foods. You should talk to your doctor before taking co-enzyme Q10 if you are taking:

- warfarin
- thyroxine
- tricyclic anti-depressants, such as amitriptyline, nortriptyline, imipramine
- diabetes medications
- statins, such as atorvastatin and simvastatin
- beta-blockers, such as atenolol
- diuretics, 'water tablets', such as bendroflumethiazide and furosemide

Who cannot take co-enzyme Q10?

You should talk to your doctor before taking the co-enzyme Q10 if:

- you suffer from diabetes
- you have low blood pressure
- you have high blood pressure

What is the dose of co-enzyme Q10?

The manufacturer's recommended dose varies with the brand of the co-enzyme Q10. Doses used in research were either 150mg daily or 300mg daily. In these studies, treatment was continued for three months.

How much does co-enzyme Q10 cost?

Co-enzyme Q10 isn't available on the NHS but can be purchased in health food stores. Costs vary from £30 - £70 for a 30 day supply depending on where you buy them and at what dose. Most commercially available coenzyme Q10 supplements contain 30 or 60mg; relatively few contain 100mg.



Does co-enzyme Q10 have side effects?

There are very few serious reported side effects of co-enzyme Q10. Side effects are typically mild and brief, stopping without any treatment needed.

Reactions may include:

- nausea, vomiting, stomach upset, heartburn
- diarrhoea, loss of appetite,
- skin itching, rash
- insomnia, headache, dizziness, irritability
- increased light sensitivity of the eyes
- fatigue and flu-like symptoms.



Pregnancy and breast feeding:

Co-enzyme Q10 is not recommended if you are planning a pregnancy, during pregnancy or whilst breast feeding.

For further information, advice on migraine management and for updates on the latest migraine research, please contact Migraine Action by calling **08456 011 033**, emailing info@migraine.org.uk, or visiting the charity's website at www.migraine.org.uk. All of our information resources and more are only made possible through donations and by people becoming members of Migraine Action. Visit www.migraine.org.uk/donate to support one of our projects or visit www.migraine.org.uk/join to become a member.

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