

Omega-3 & Omega-6 fats

Essential fats

It's essential that our diets include alpha-linolenic acid (ALA) and linoleic acid (LA). This is because our bodies cannot make them. LA is an omega-6 fat, and is used by our bodies to build other omega-6 fats. ALA is an omega-3 fat, and is used by our bodies to build other omega-3 fats. These different types of fat affect our immune system, brain, nerves and eyes. Both ALA and LA can be obtained from natural sources in a vegan diet.

Sources of essential fats

If you are eating a varied and balanced vegan diet, it is likely that you are consuming good sources of LA on a regular basis. These include hemp seeds, pumpkin seeds, sunflower seeds, walnuts and soya spread.

Eating enough omega-3 fat daily may require more planning. Good sources of ALA include chia seeds, ground linseed, hemp seeds and walnuts. You can also consider using vegetable (rapeseed) oil as your main cooking oil. To meet the ALA recommendations of the Food and Agriculture Organization of the United Nations (FAO)¹ and European Food Safety Authority (EFSA)², you would need to eat about a tablespoon of chia seeds or ground linseed, two tablespoons of hemp seeds or six walnut halves daily.

Balancing omega-3 and omega-6 fats

In addition to recommended intakes for the essential fats, some health authorities around the world have proposed recommended intakes of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), which are long chain omega-3 fats. Vegans consume almost no EPA and DHA from natural sources, but dietary ALA is converted into EPA and DHA. Many factors affect how much EPA and DHA we make. For instance, eating a lot of LA can reduce the amount of ALA that is converted into EPA and DHA. The following tips may help your body to make EPA and DHA³:

- Use vegetable (rapeseed) oil instead of oils containing a lot of LA, such as sunflower, corn or sesame oils
- Take care with the serving sizes of sunflower and pumpkin seeds

What about omega-3 fat supplements?

The FAO and EFSA suggest a long-chain omega-3 fat (EPA and DHA) intake of 250 milligrams per day for adults². It is possible to supplement a vegan diet with EPA and DHA from microalgae. Supplementation may be a particularly important consideration for infants and those who are pregnant or breastfeeding, due to the role of omega-3 fat in brain health. However, we need more research into how supplementation affects the health of vegans.

Another option is to increase your intake of ALA, which may boost the amount of omega-3 fat in your blood. Some experts suggest that vegans should eat double the recommended amount of ALA³. For instance, you could include both a tablespoon of ground linseed and six walnuts halves in your daily diet.

Summary

- Make sure that your daily diet includes good sources of ALA, such as chia seeds, ground linseed, hemp seeds and walnuts
- Consider using vegetable (rapeseed) oil as your main cooking oil
- Supplementation with long chain omega-3 fats from microalgae may be a particularly important consideration for infants and those who are pregnant or breastfeeding, due to the role of omega-3 fats in brain health (please discuss the use of supplements with a health professional)

References

1. FAO (2008) *Fats and fatty acids in human nutrition* available from: <http://foris.fao.org/preview/25553-0ece4cb94ac52f9a25af77ca5cfba7a8c.pdf> (viewed 02-AUG-2016)
2. EFSA (2010) *Scientific Opinion on Dietary Reference Values for fats, including saturated fatty acids, polyunsaturated fatty acids, monounsaturated fatty acids, trans fatty acids, and cholesterol* available from: http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1461.pdf (viewed 02-AUG-2016)
3. DAVIS, B AND MELINA, V (2014) *Becoming Vegan: Comprehensive Edition*, Summertown: Book Publishing Company