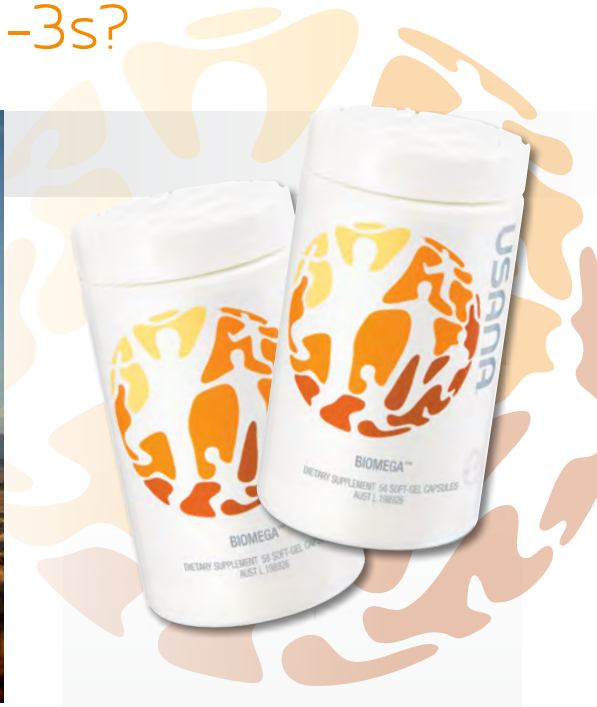
BIOMEGA™

USANA

Are you getting enough omega-3s?



A healthy body needs a mix of nutrients including proteins, carbohydrates and fats – yes fats! Fats are a major macronutrient and they provide a concentrated source of energy plus, they help the body to absorb nutrients such as fat-soluble vitamins and some antioxidants. The trouble is that most of us consume too much fat in general. Also, the vast majority don't get enough of one fat in particular – the omega-3s. Are you getting your fats right?

Fats are grouped according to their chemical makeup and each type of fat affects the body differently. Most of us need to cut down on our total fat intake and especially avoid foods that are high in saturates.

More about omega-6 fats

Omega-6 (and omega-3) fats play a crucial role in heart and brain function and in normal growth and development.

Vegetable oils such as sunflower, safflower, and corn oil, meat, eggs and dairy are major contributors of omega-6s. Most of us get plenty of omega-6s but not enough omega-3s. Even so replacing saturated fats with polyunsaturated fatty acids (PUFAs) is a heart healthy move. One study showed that swapping saturates with PUFAs can cut heart disease risk by nearly a quarter!

More about omega-3 fats

Omega-3 fats contain two key ingredients; long chain fatty acids called eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Vital building blocks for the production of cell membranes, EPA and DHA are needed to produce hormones, to protect the immune system, for healthy cell growth and much more…

1. **Brain and nervous system health.** Much of your brain tissue is made from omega-3 fats so for healthy brain development and function, long chain omega-3 fatty acids (specifically DHA) are a must throughout life.

2. **Anti-inflammatory action.** Omega-3 fats have anti-inflammatory effects. And, because inflammation is behind many chronic (long-term) conditions such as heart disease and joint inflammation, raising your intake of omega-3s may help reduce the risk of these, plus conditions such as osteoarthritis and rheumatoid arthritis.

Saturated fats

Saturated fats tend to be solid at room temperature and come mostly from animal foods – the visible fat on meat and the fat in full-fat dairy products such as cheese and cream are examples. Too much saturated fat can raise blood cholesterol, clog the arteries and trigger heart disease.

Unsaturated fats

These can be either monounsaturated or polyunsaturated.

Monounsaturated fats tend to be liquid at room temperature. These types of fats are an important part of the heart-healthy Mediterranean diet. Olive oil, avocadoes and nuts are rich in monounsaturates.

Polyunsaturated fats are also liquid at room temperature. They can be divided into omega-6 and omega-3 fats or fatty acids; both of these are called essential fatty acids (or EFAs) or polyunsaturated fatty acids (PUFA). They are essential because your body can't make them so you have to get them from your diet.

3. **Heart health.** Getting enough omega-3s may help to lower a type of fat called triglycerides as well as total cholesterol (both can increase your risk of heart and blood vessel conditions). Omega-3s may also help to increase HDL-cholesterol levels (the healthy type of cholesterol because it helps to eliminate cholesterol from the body).

4. **Eye health.** According to the Linus Pauling Institute, omega-3s may protect against age-related macular degeneration, the most common cause of blindness in older people.

5. **Pregnancy and breastfeeding.** Long-chain omega-3s can have a positive effect on visual and cognitive (brain) development in the growing baby.

6. **Prostate health.** A recent study has suggested a link between consumption of DHA and total marine fatty acid intakes with a lower risk of death from prostate conditions.

7. **Cell ageing.** Other research suggests that omega-3s can help the cells resist ageing. Scientists measured blood levels of omega-3 oils from fish (DHA and EPA) and then isolated white blood cells to measure the markers that signal ageing. Their findings, say the researchers, 'raise the possibility that omega-3 fatty acids may protect against cellular ageing'.

Finding nature's antifreeze

Omega-3 fats don't solidify even in very cold temperatures. This is important for fish living in cold ocean waters – without this kind of natural anti-freeze, the fish would literally freeze! In your body, this property helps blood vessels to remain flexible.

The richest sources of polyunsaturated essential fats include cold water fish like salmon, mackerel, trout and fresh tuna.

Some white fish and shellfish contain long-chain omega-3s, but not as much as oily fish. The main shellfish sources of long-chain omega-3s are mussels, oysters, squid and crab.

Fish oil is another good source of essential omega-3 fats.

Could you be short on omega-3s?

Early humans were hunter-gatherers who ate a diet that contained roughly a 1:1 ratio of omega-6 to omega-3 fats. Today, the typical ratio is around 15:1 a vastly lowered intake and ratio of omega-3 fats. In Japan where fish is a staple food, the ratio is 4:1 and the population is considered to be one of the healthiest worldwide.

One reason that we could be falling short of omega-3s is that the modern day diet doesn't offer as many sources of these fats compared with times gone by. Because marine animals are the richest source of long chain omega-3s, you need to actively seek out fish and seafood and eat it regularly. Yet we have many more opportunities to consume saturates and omega-6 fats because we tend to eat more animal products and manufactured foods and more vegetable oils.

Also, because omega-6 fats and omega-3s are similar in makeup, when you eat more omega-6 fats, they compete against omega-3 fats for the same enzymes (substances that speed chemical reactions). So, the more omega-6 that you consume, the more enzymes will be used up leaving fewer enzymes to convert omega-3 fats into anti-inflammatory chemicals needed to keep the inflammatory process in check. When the ratio is greatly out of balance, high levels of omega-6 replace and even reduce omega-3 fats.

If fish is the best source of omega-3s, how did inland early man survive?

The first humans were hunter gatherers. Unlike most of us today, they didn't just eat the muscle meats of a hunted animal – they also ate omega-3 rich organ meats like the brain and bone marrow. Today, game i.e. wild-caught animal meat still contains more omega-3s than grain-fed, farmed livestock. Studies also suggest that the high levels of omega-6 fats many of us consume may reduce the absorption of omega-3s, especially DHA.

Getting the balance right

Some experts say that consuming too much omega-6 and so little omega-3 fats can trigger inflammation which may then lead to heart disease and other conditions. Others suggest that omega-6 doesn't have this effect. The majority agree, though, that in the average western diet, you're likely to get so many omega-6s that reducing your intake may bring health benefits.

Cutting your intake of omega-6s and increasing your intake of omega-3s can help you to get the balance right.

The Heart Foundation (Aus) recommends an intake of 500mg/day EPA and DHA. Around 1000mg of omega-3 (marine source) daily is recommended if you have heart disease. Studies in the UK suggest that a massive nine out of ten British people fall short of this amount and the figure is likely to be similar here in Australia and New Zealand.

What about fish oil supplements?

Fish oil (derived from the flesh of cold-water fish, such as salmon, mackerel, herring, sardines and anchovies) is a naturally powerful anti-inflammatory. Supplementing your diet is useful for general health and in the treatment of a range of conditions.

For example:

Heart health – fish oil supplements may help to improve blood flow thus helping to maintain healthy heart circulation and cardiovascular health.

Joint health – fish oil can help decrease joint inflammation associated with arthritis. One study showed that supplementation could reduce requirement for anti-inflammatory medication in patients with rheumatoid arthritis.

Behavioural problems – fish oil supplements and DHA in particular may help to improve behavioural problems in children. These include short attention span and restlessness. DHA is especially important in helping to regulate cognitive performance and may even help boost children's school abilities by enhancing learning.

Healthy pregnancy and healthy baby – getting enough omega-3s is important for the healthy development of a baby's brain, nervous system and sight. The human brain has a growth spurt during the last trimester of pregnancy and in the months after birth. This is when the DHA in the brain triples so getting enough is essential.

Not all fish oil supplements are created equal

Dr Alex Richardson from the UK charity Food and Behaviour Research is one of the world's leading researchers into omega-3s. She has voiced her concerns about the poor quality of many fish oil supplements saying: 'Not all kinds of omega-3s have the same health benefits.'

One of the main problems with some supplements she says is that products can contain little, if any of the important forms of omega-3s for human health, EPA and DHA. Look for a supplement that contains 1000mg omega-3s.

Ways to get the balance right

Eat more fish. Go for two fish dishes a week – a serve is around 170-200g (raw fish weight) or 110-140g of canned or cooked salmon. Good sources of omega-3s include salmon, herring, sardines, fresh tuna, snapper and scallops.

Eat more vegetarian sources of omega-3s. These include walnuts, flaxseeds (freshly ground), soybeans and tofu and leafy vegetables such as kale. These contain a precursor chemical, a short chain omega-3 called alpha-linolenic acid called (ALA) which the body can use to form the long-chain fatty acids EPA and DHA. But the conversion process isn't very efficient. According to one review, between eight and 20 per cent of ALA is converted to EPA in humans and between 0.5 to nine per cent of ALA is converted to DHA. Levels of the enzyme needed to convert ALA to EPA and DHA decline with age.

Switch oil. Cook and stir-fry with just a little canola oil which contains ALA. Or replace butter, vegetable and sunflower oils with olive oil, macadamia or avocado which contain heart-healthy monounsaturates.

Sprinkle on seeds. Try chia seeds – these were an important staple of the ancient Aztecs and Mayans, chia seeds also contain bone-building minerals including calcium, phosphorus and magnesium.

Try tofu. Add tofu to stir-fries or stir soya beans in to casseroles and curries.

Snack smart. Try delicious walnuts which also contain antioxidants including ellagic acid to support a healthy immune system.

Cut down on processed foods – manufacturers often use omega-6 rich vegetable oils.

Pesticides and purity

BiOmega™ is mercury-tested and USANA uses a double molecular distillation process that ensures the highest possible purity, unsurpassed in the industry. This revolutionary process removes mercury, polychlorinated biphenyls (PCBs), pesticides and other heavy metals. Pollutants are removed without damaging the delicate omega-3 fats.

BiOmega can be used long-term to supplement your daily diet and provide long-lasting health benefits.

BiOmega is fortified with vitamin D; it provides 200 IU per daily recommended dosage. Vitamin D is essential for healthy bones and immune function. Around one in four adults in Australia and New Zealand is short on vitamin D.

BiOmega:

- Contains 1000mg cold-water fish oil rich in the important omega-3 fatty acids EPA and DHA
- Each capsule contains EPA 320mg and DHA 230mg
- Provides a healthy balance of omega-3s
- Easily absorbed by the body
- Offers exceptional purity
- Helps to maintain a healthy nervous system
- Supports cardiovascular and joint health
- Important structural component of the brain and eyes

Taking BiOmega

Try a small amount to begin with and build up to the recommended amount.

Take with food to avoid a fishy aftertaste or digestive problems. Large doses of fish oil (above the recommended daily amount) if taken all at once may have a laxative effect, so spread the doses out over the day to improve absorption.

References

American Heart Association (2009, February 2). Omega-6 Fatty Acids: Make Them Part of Heart-healthy Eating, New Recommendations Say. ScienceDaily. Accessed on 17 August 2012. Available from: http://www.sciencedaily.com/releases/2009/01/090126173725.htm

Muldoon MF, Ryan CM, Sheu L, Yao JK, Conklin SM, Manuck SB. SourceCenter for Clinical Pharmacology, University of Pittsburgh, Pittsburgh, PA 15260, USA. mfm10@pitt. eduSerum phospholipid docosahexaenonic acid is associated with cognitive functioning during middle adulthood. J Nutr. 2010 Apr;140(4):848-53. Epub 2010 Feb 24. Accessed on 17 August 2012. Available from: http://www.ncbi.nlm.nih.gov/pubmed/20181791

Oregon State University. Linus Pauling Institute. Micronutrient Information Center. Essential Fatty Acids. Accessed on 17 August 2012. Available from: http://lpi.oregonstate.edu/infocenter/othernuts/omega3fa/

Epstein M, Kasperzyk L, Mucci LA, et al. Dietary Fatty Acid Intake and Prostate Cancer Survival in Örebro County, Sweden. American Journal of Epidemiology. Published online July 10, 2012. Accessed 17 August 2012. Available from: http://aje.oxfordjournals.org/content/early/2012/07/10/aje.kwr520.abstract

Farzaneh-Far R, Lin J, Epel ES et al. Association of Marine Omega-3 Fatty Acid Levels With Telomeric Aging in Patients With Coronary Heart Disease. JAMA 2010;303(3):250-257. Accessed on 17 August 2012. Available from: http://jama.jamanetwork.com/article.aspx?articleid=185234

Evolutionary aspects of diet, the omega-6/omega-3 ratio and genetic variation: nutritional implications for chronic diseases Biomed Pharmacother. 2006 Nov;60(9):502-7. Epub 2006 Aug 28. Accessed 17 August 2012. Available from: http://jama.jamanetwork.com/article.aspx?articleid=185234 http://www.ncbi.nlm.nih.gov/pubmed/17045449

Diabetes Forecast. The Healthy Living magazine. American Diabetes Association. The A-to-Z of Omega-3. Accessed 17 August 2012. Available from: http://forecast.diabetes.org/magazine/food-thought/z-omega-3

Nutraingredients. Omega-3: ALA intakes enough for EPA/DHA levels for non-fish eaters? Stephen Daniells. Produced on 8 October 2010. Accessed on 24 August 2012. Available from: http://www.nutraingredients-usa.com/Research/Omega-3-ALA-intakes-enough-for-EPA-DPA-levels-for-non-fish-eaters

Seafood Services Australia. Benefits of Seafood for Specific Health Conditions - based on the latest scientific evidence. Accessed 17 August 2012. Available from: http://www.seafood.net.au/page/?pid=356

Innis SM. Perinatal biochemistry and physiology of long-chain polyunsaturated fatty acids. J Pediatrics 2003; 143:S1-S8 Accessed 17 August 2012. Available from: http://www.ncbi.nlm.nih.gov/pubmed/14597908

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