

## Omega-3 fats and your heart

The role of fats in our diet is always a contentious issue, with some fats being harmful and others being beneficial to our health. Any fat taken in large quantities will result in weight gain and could eventually lead to obesity. A topic that is often talked about in relation to nutrition and heart disease is omega-3 fats: but what exactly are they? Omega-3 fats are a particular type of polyunsaturated fat found in both plant and marine foods. Some omega-3 fatty acids are essential fats, which means that your body cannot manufacture them, so must be obtained from your diet.

### Benefits of omega-3 fats

Research studies have shown that omega-3 fats are particularly heart healthy as they may help

- lower the risk of cardiovascular disease
- prevent coronary artery disease
- reduce triglyceride levels (a type of fat in the blood)
- prevent blood clotting
- lower the risk of sudden death and arrhythmia (abnormal heart rhythm)
- prevent high blood pressure

Omega-3 fats are also important for the development of the eyes and brain of babies, as well as being beneficial in a wide range of conditions including rheumatoid arthritis, depression, Alzheimer's, chronic fatigue syndrome and behavioural conditions like ADHD.

### Where do the benefits come from?

The benefits are mainly thought to come from the omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). These fatty acids can be made in your body from the essential parent fatty acid, alpha linolenic acid (ALA), but this is a slow process and may be inefficient in some people.

### Why are omega-3 fats important in the diet?

A balance between the omega-3 and omega-6 fatty acids in the diet is important for optimal health. If we don't eat correctly, deficiencies or imbalances in these fatty acids may develop. As the typical South African consumes far more omega-6 fats (e.g. sunflower oil) and not enough of the omega-3 type, the intake of sufficient omega-3 fats needs to be encouraged. Depletion of omega-3 fatty acids may have serious consequences for immune function and lead to the development of chronic conditions including cardiovascular disease.

### Which foods contain omega-3 fats?

Flaxseed is the richest source of ALA, while other sources include canola and soyabean oils, walnuts, red and black currant seeds. The conversion of these omega-3-rich plant sources to EPA and DHA in humans, however, may not be optimal. Excellent sources of preformed EPA and DHA omega-3 fats are fish oil and fatty fish (e.g. sardines, salmon, mackerel, pilchards, herring snoek, galjoen and fresh tuna). For optimal health, the Heart and Stroke Foundation SA recommends that most people eat fatty fish at least twice a week (about a 100g portion per serving).

### Tips to help you increase your intake of omega 3 fats

- Choose both plant and marine sources of omega-3 food as part of a healthy eating pattern.
- Include canola oil for cooking.
- Make your own salad dressings or mayonnaise using canola or soyabean oil.
- Fish is very versatile – the best way to cook it and retain the omega benefits is to steam or microwave until just cooked. Otherwise enjoy it pan-fried, baked or on the braai.
  - eat fish whole with lemon, herbs and salad
  - add fish to casseroles, pasta or curry
  - enjoy tuna or salmon as sushi
- Choose canned fish such as tuna, salmon, sardines and pilchards in spring water. Have it with water crackers as a snack or in a whole wheat sandwich or salad at lunch.

**What about supplements?**

Increasing omega-3 fatty acid intake through foods is preferable. If you are a vegetarian, you can get your omega-3's from walnuts, flaxseed oil or canola oil (just monitor your weight). If you don't enjoy fish, you could consider taking a fish oil supplement under the care of a healthcare professional. There are currently no SA recommendations for supplement use, but the American Heart Association guidelines are 1g EPA & DHA per day if there is documented coronary heart disease or 2 - 4g EPA & DHA per day in people with high triglycerides. If necessary ask your doctor or dietician to recommend a good supplement.

**Conclusions**

Omega-3 fats are good for your heart, so should be included as part of a healthy diet. Fatty fish is rich in omega-3's and we recommend eating it at least twice a week for those with existing heart disease or for those at risk of cardiovascular disease. Also include plant sources such as flaxseeds and nuts, especially walnuts as well as canola oil.

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