

Polyunsaturated Fatty Acids

Dietary fat can influence overall health: not only the total amount of fat eaten, but also the types of fats and oils consumed.

In our series of articles on 'fats' we will outline the facts about fats and detail the current UK intake and consensus recommendations to help you understand these compounds. An article will be devoted to each of the three main types of fats.

The fats and oils in our foods are largely composed of triacylglycerols which are formed from glycerol and fatty acids. It is the fatty acid components of these compounds that effect the physiological changes within the body which can impact upon long term health.

There are three types of fatty acids commonly found in our foods: saturated fatty acids (SFAs), polyunsaturated fatty acids (PUFAs) and monounsaturated fatty acids (MUFAs).

Fats with a high proportion of polyunsaturated fatty acids (PUFAs) are liquid at room temperature and even when refrigerated. Dietary sources of polyunsaturated fatty acids include: oily fish, flax/flaxseed oil and other nuts and seeds and their oils.

Do you know?

Polyunsaturated fatty acids are beneficial in terms of heart health as they help to reduce LDL cholesterol. However, they also reduce HDL cholesterol slightly so it is advisable for people who eat a lot of polyunsaturated fatty acids to consider substituting some monounsaturated sources into the diet

What the experts say

The Department of Health recommends that not more than 6.5% of food energy from polyunsaturated fatty acids.

It is worth bearing in mind that this recommendation was set alongside that for overall fat intake (33% food energy) and with an expectation that the UK public would continue to include saturated fats in the diet.

For an individual who consumes very little SFAs, PUFAs could reasonably (and beneficially) provide more than the above recommendation of 6.5% of food energy.

The current UK average daily intake of polyunsaturated fatty acids is 5.3% of food energy for women and 5.4% for men.

Essential fatty acids

Dietary PUFAs are a source of the essential fatty acids (EFAs): these fatty acids must be obtained in the diet as the body is unable to synthesise them. There are two EFAs: linoleic acid and alpha linolenic acid: omega 6 and 3 fatty acids respectively. Of key importance is the ratio of these essential fatty acids in the diet.

What the experts say

Harvard School of Public Health recognise that omega-3 fatty acids are associated with many health benefits, including protection against heart disease and possibly stroke.

New studies are identifying potential benefits for a wide range of conditions including cancer, inflammatory bowel disease, and other autoimmune diseases such as lupus and rheumatoid arthritis.

Do you know?

The Department of Health recommends that the ratio of omega 6 to omega 3 fatty acids should be 5:1.

The current UK intake is closer to 8:1.

Most people would benefit from including more sources of omega 3 fatty acids in their diets

Sources of omega 6:

- sunflower oil
- corn oil
- nuts
- seeds
- cakes
- biscuits

Sources of omega 3:

- oily fish
- flax seeds and their oil
- hemp seeds and their oil
- walnuts

However, as with all aspects of diet, focusing on one specific element can be both misleading and may even progress to faddy eating and further imbalances in the diet. Thus an individual's consumption of polyunsaturated fatty acids should be viewed alongside their overall fat intake and, indeed, their entire diet.

Keeping sight of the overall picture is the art of successful nutritional communications.