

Fats

Fats are an important part of the diet; they provide the body with energy and with some important vitamins (for example, vitamins A and D). They also provide essential fats, which the body is unable to make for itself. However, eating too much fat, or the wrong balance of fats can be unhealthy. This Food Fact Sheet will describe the different types of fats and their effects in the body.

Fats are important in the diet

They provide energy

Fats provide 9 calories per gram (kcal/g). They are an energy dense nutrient and compared to other nutrients they are higher in energy (called calories), e.g. protein and carbohydrate provide 4 kcal/g.

They carry fat soluble vitamins

Fats carry fat soluble vitamins (vitamins A, D, E and K) and help the body to use them.

They provide essential fatty acids

The body cannot make essential fatty acids and needs a supply from the diet.

Types of fatty acids

There are two main groups of fats – saturated fats and unsaturated fats. Unsaturated fats can be either polyunsaturated or monounsaturated fats. Whilst most fats contain a mixture of these, **the dominant type is considered to be the type to characterise the fat**. For instance, more than half the fat in butter is saturated, and one quarter monounsaturated, so we describe butter as a saturated fat.

Saturated fats are mainly found in animal products such as fatty meats and meat products, butter, ghee and lard, and dairy products including cheese and cream. Products that contain these fats such as cakes, pastries and biscuits are also sources of saturates.



Some vegetable fats such as cocoa butter, palm oil and coconut oil also contain saturated fats. In general, saturated fats are considered to be less healthy because they can raise blood cholesterol levels and increase the risk of heart disease.

Unsaturated fats are found generally in plant foods such as seeds, nuts, olives and avocados. They can be either polyunsaturated, (e.g. sunflower, soya, corn, and sesame oils) or monounsaturated (e.g. olive and rapeseed oils). There is good evidence to suggest that swapping saturated fats for unsaturated fats can help to lower cholesterol. Unsaturated fats are not associated with raising blood cholesterol, and some may help lower some cholesterol types.

Omega-3 fats are a type of polyunsaturated fat, and are often called 'essential' fatty acids as the body cannot make enough. The best sources are oily fish such as salmon, mackerel, herring, sardines, and pilchards. Other sources include nuts and seeds e.g. walnuts and pumpkin seeds; vegetable oils e.g. rapeseed and linseed; soya and soya products e.g. beans, milk and tofu; and green leafy vegetables as well as enriched foods including some eggs, milk and yogurts.

ALA (alpha linoleic acid), EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) are the main long-chain omega 3 fatty acids. European experts have agreed that ALA, found in plant oils such as rape, linseed and walnut, can help maintain normal cholesterol levels in the body. EPA and DHA, commonly found in fish oils, are involved in the normal function of the heart, and DHA is involved in the healthy development of the brain and eyes in unborn children and in breastfed infants.

Trans fats are naturally present at low levels in some dairy foods and meats, but are also found in processed & hardened vegetable oils. They can be found in 'partially hydrogenated vegetable fats/oil' but many manufacturers now avoid using hydrogenated fats or have reduced the amount of trans fats in their products to very low levels.

Fats and health

We need some fat in our diet - both quantity and quality are important. Around a third of our energy should come from fat, the majority of which should be unsaturated. Typically, many of us meet the recommendation for total fat intake, but intakes of saturated fats remain too high.

High intakes of saturated fat are associated with higher blood cholesterol levels. Reducing intakes of saturated fat and replacing with unsaturated fats may help to maintain normal blood cholesterol levels. Many people do not have enough omega 3 fatty acids, and should try to eat more foods that contain these fats, particularly oily fish.

How much?

Daily reference intakes (adult 19-64)

Total fat 70g
Saturates 20g

(These figures are based on a typical adult female)

High intakes of fat are associated with weight gain, which can increase the likelihood of developing problems like Type 2 diabetes, joint problems, and some cancers. Too much saturated fat is associated with higher blood cholesterol levels, which may increase the risk of heart problems.

Look at the label

All packaged food products have to provide nutrition information on the label. The Nutrition Panel on the back or side of food packs can be used to tell us the amount of fat and saturates in 100g of a food and per portion, some labels also tell you the amount of mono and/or polyunsaturated fat present.

Most products summarise the key nutrition information on the front of packs too, and on some products this is colour coded to help us judge whether the amount of fat in a food is a lot or not. Nutrition information helps us review a specific product, or compare two or more products to help our choice.

Traffic light labelling for fat and saturates for 100g food

| Text | LOW | MEDIUM | HIGH | |
|-------------|-------------|-----------------------|--------------|----------------|
| Colour code | Green | Amber | Red | |
| | | | >25% of RIs | >30% of RIs |
| Fat | ≤ 3.0g/100g | > 3.0g to ≤ | > 17.5g/100g | > 21g/portion |
| Saturates | ≤ 1.5g/100g | > 1.5g to ≤ 5.0g/100g | > 5.0g/100g | > 6.0g/portion |

Red shows that the fat levels are higher in a product. It does not mean that we shouldn't eat it, but we should keep an eye on how much and how often. Green means the food is low in that nutrient. Our diet is likely to be made up of a variety of foods with different colour codes, but we should aim to eat more food with green and amber colour codes than red.

Some foods have additional information on packs such as claims to be 'low in fat' or 'low in saturated fat'. There are specific criteria which must be met to make these claims.

- **'low in fat'** - 3g of fat or less per 100g, or 1.5g of fat per 100ml for liquids (1.8g of fat per 100ml for semi-skimmed milk).
- **'fat-free'** - 0.5g of fat or less per 100g or 100ml
- **'low in saturated fat'** - 1.5g of saturates or less per 100g or 0.75g per 100ml for liquids.
- **'saturated fat-free'** - 0.1g of saturates per 100g or 100ml.

Summary

Fats occur naturally and in many processed foods. Fats can affect your health depending on how much and which type you eat. The amount of fats we eat is important and should be around a third of our daily energy. The type of fat is key too, in simple terms we should reduce our intakes of saturated fats and replace with unsaturated fats including omega-3 fats. Reading food labels will help you to make healthier choices and to get the balance of fats right in your diet.

Further information: Food Fact Sheets on other topics including Trans Fats, Labelling and Omega-3 are available at www.bda.uk.com/foodfacts

Useful links:
www.nhs.uk/Livewell/Goodfood/Pages/Fat.aspx

