FAT

European Snacks Association

Background

Fat is an essential part of everyone's diet[1].

A certain amount of fat is necessary to ensure an adequate intake of essential fatty acids and fat-soluble nutrients, as well as energy. Fat is involved in many vital processes in the body, for example by maintaining healthy skin and promoting healthy cell function.

It is a myth that all types of fat found in food are bad for your health. Scientists now understand that it is *not* the total amount of fat in the diet that has the greatest impact on health but the type of fat that is most important. As a result, government agencies and health organisations around the world have revised their dietary advice to consumers, emphasising that reducing the amount of saturated fat in their diets should be their primary objective.

What is the difference between saturated and unsaturated fat?

Saturated fats are those fats with no unsaturated bonds in the fatty acid chain. In the diet they come primarily from animal sources but are present in all fats. They are present in high amounts in common foodstuffs such as butter, cheese and meat products. Saturated fat in the diet increases the risk of high blood cholesterol levels, which in turn are linked with increased risk of heart disease.

Unsaturated fats have an unsaturated double bond and are called monounsaturates when there is one, and polyunsaturates when there are two or more unsaturated double bonds. Monounsaturates are present in most fats, either animal or plant origin, but at much higher levels in the latter. Most polyunsaturated fats come from plants such as sunflower, rapeseed, nut or corn and are liquid at room temperature.

What are trans fatty acids (TFAs)?

Trans fatty acids (TFAs) can form when unsaturated oils are hardened (hydrogenated) by saturating some of the unsaturated fatty acids. This hardens the fat and makes it suitable for margarines or cooking/baking fats. This process produces some monounsaturates with a different configuration and these are termed 'trans' fatty acids. It is generally recognised that TFAs can have a more adverse effect on blood cholesterol than saturated fats. High levels of blood cholesterol can increase the risk of heart disease. The advice to consumers is therefore to try to reduce their intake of TFAs.

On 24 April 2019, the Commission adopted a Commission Regulation amending Annex III to Regulation (EC) No 1925/2006 of the European Parliament and of the Council as regards trans-fat, other than trans-fat naturally occurring in fat of animal origin.

The Regulation sets a maximum limit for trans-fat of 2 grams per 100 grams of fat, other than trans-fat naturally occurring in fat of animal origin, in food which is intended for the final consumer and food intended for supply to retail.

[1] https://www.who.int/nutrition/publications/nutrientrequirements/fatsandfattyacids_humannutrition/en/

Fats and food

Fat contributes to texture, flavour and aroma and so enhances the palatability of food. Potato crisps and most savoury snacks are cooked with vegetable oils. Depending upon the cooking process and raw materials used, savoury snack products range in fat content from around 2% - 40%. Vegetable oils contain significant levels of vitamin E, a natural antioxidant that protects the body's cells from oxidative damage and may decrease the risk for heart disease and stroke. Vegetable oils do not contain cholesterol.

Even in the UK, which is one of the largest per capita consumers of savoury snacks in Europe, savoury snacks contribute less than 3% to the average adult's dietary intake of fat and less than 2% of their calorie intake.[2]

Fats and the diet

Fat in our body and in our food is composed of fatty acids. Some fatty acids cannot be made in the body – they are called 'essential' fatty acids and must be obtained from food. Consequently, fat is not only a desirable part of the diet but an essential one.

Fats and cholesterol have a number of important functions in the body:

- Fats provide a concentrated source of energy
- Fats supply fat-soluble vitamins A, D, E and K and help their absorption by the body
- Fats are components of cell membrane structures and helps maintain healthy skin
- They serve for the lubrication of body surfaces and in the formation of certain hormones

FOOD SOURCES RICH IN THE VARIOUS TYPES OF FATTY ACIDS	
Type of fat	**Sources**
Saturated	Butter, cheese, meat, meat products (sausages, hamburgers), full-fat milk and yoghurt, pies, pastries, lard, dripping, some hard margarines and baking fats, coconut and palm oil.
Monounsaturated	Olives, rapeseed, nuts (pistachio, almonds, hazelnuts, macadamia, cashew, pecan), peanuts, avocados, and their oils.
Polyunsaturated	Omega-3 polyunsaturated: Salmon, mackerel, herring, trout (particularly rich in the long chain omega-3 fatty acids EPA or eicosapentaenoic acid and DHA or docosahexaenoic acid). Walnuts, rapeseed, soybean flax seed, and their oils (particularly rich in alpha linolenic acid). Omega-6 polyunsaturated: Sunflower seeds, wheat germ, sesame, walnuts, soybean, corn and their oils. Certain margarines (read the label).
Trans fatty acids	Present in some baking fats (e.g. partially hydrogenated vegetable oils) the use of which have been largely discontinued by the European food industry. Trans fats are also known to occur naturally at very low levels within dairy products, fatty beef and meat from sheep.

[2] National Diet and Nutrition Survey (NDNS) Rolling programme. Years 1-9 data combined (2008/9 - 2016/17), Public Health England, 23 January 2019. https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9