

butter & spreads

THE FACTS

There has been a lot of confusion over recent years over butter, spreads and margarine. This factsheet is designed to try and make the facts clearer. Both butter and spreads have their benefits and it is important that the public are equipped with the correct information to be able to make informed dietary choices.



BUTTER is a soft, yellow-hued, edible emulsion of butterfat, water and sometimes salt. Butter is essentially the fat of milk. Butter is typically 81% fat, 65% of which is saturated and five per cent of which is trans-fatty acids (TFAs). It also contains vitamins A, D and E. The word 'butter' is derived from the Greek term beutron meaning cow's cheese. References to butter date back as early as the ninth century B.C. Because the cow is regarded as sacred in Hindu religion, butter has long played an important role in Indian cuisine. In the southern regions of Europe some people believed that butter caused leprosy.

MARGARINE was the first alternative to butter. Butter was expensive for those who did not live off the land, so in the 19th century Louis Napoleon III, the emperor of France, offered a reward to anyone who could produce an acceptable alternative. A French chemist named Mege-Mouriez won the 1869 competition for the product he named margarine after its primary ingredient, margaric acid. This substance had only recently been discovered in 1813 by Michael Eugene Chevreul and derived its name from the Greek term for pearls, margarite, because of the milky drops that Chevreul noticed in his discovery. Today there are no branded margarines on sale in the UK.

SPREADS Since the 1970s and even more so in the last few years, the types of butter and margarine available to buy and eat have been changing considerably. This has been in response to the evolving wants and needs of the public. As a result, new products have emerged called 'spreads'. Spreads are sold in tubs and can be used straight from the fridge.

Now, there is a wide range of spreads, to suit every taste. What all of them have in common is that they contain vegetable oils, such as sunflower, olive or rapeseed oils. Each spread may contain different

individual oils or blends of oil; some also contain buttermilk, butter or other dairy ingredients for a buttery flavour. Spreads are often used instead of butter and many people prefer them because they are lower in total fat and saturated fat. They also contain a range of vitamins and essential fatty acids, which are vital for the healthy functioning of the body.

No brands of spread on sale in the UK contain hydrogenated oils any more and all vegetable oil based spreads are virtually free of trans-fatty acids. The amount of saturated fat in spreads has consistently been falling and now, even at the highest end of the scale, content is at least 25% less than that of butter.



MAKING butter spreads

There are many similarities in the way that vegetable oil spreads and butter are made.

MAKING BUTTER

1 Collecting the raw ingredients

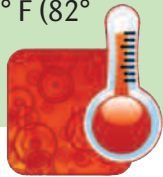


Whole cow's milk brought into factory and filtered. The milk is spun at very fast speed in a centrifuge, which makes the cream rise to the top of the liquid.



2 Pasteurisation

The cream is then fed into large stainless steel vats and pasteurised by heating it to 180° F (82° C) for less than a minute. This kills any bacteria.



3 Turning the raw ingredients into butter



The cream is then chilled and held in vats for several hours before being fed to continuous agitator 'churns' which beat the cream causing granules of butter to form.

These granules are squeezed together releasing some buttermilk and salt may be added before a final beating under a vacuum to achieve the smooth, aeration free texture required.

It is then ready to be portioned and wrapped, ready for transport to wholesalers.



MAKING VEGETABLE OIL SPREAD

1 Collecting the raw ingredients

First, the natural seeds, such as sunflower seeds or corn, are crushed to extract the pure oil. The oil is 'washed' by mixing it with hot water, separating it and drying it under a vacuum. This removes any impurities from the oil and leaves it clean and fresh-tasting.

Different types of oils have different melting characteristics. Some are solid at room temperature, others liquid.

Depending on the type of spread, a mixture of oils is selected and blended together so that all the oils are in a liquid state.

An emulsifier is added. This will avoid the liquid ingredients separating later when the water is added. The emulsifiers used always come from a vegetable oil, such as lecithin which comes from soybean.

Then water, whey and/or milk proteins, vitamins and salt are usually added and all the ingredients are stirred at about 50°C.



2 Pasteurisation

The mixture is then heated to a very high temperature 180° F (82° C) for less than a minute to make sure that no bacteria can survive.



3 Turning the raw ingredients into spread

Finally, the mixture is cooled and packed into tubs/wrappers. It is during this cooling that the perfect spreading consistency forms.

