FATTY FACTS

Summary

We need a little bit of fat as part of a healthy diet but some fats are better for us than others. Fat is used for energy and helps our brain to work properly. It is found naturally in animal products such as lamb and butter but it is also added to many processed foods such as potato chips. Unsaturated fats are helpful to the body but we only need small amounts of them. We mainly get these fats from plants and fish. Trans fats and saturated fats are the unhealthy fats which have been linked to heart disease. If people have too much saturated or trans fat in their bodies it can build up and block their blood vessels, which causes heart trouble.

What are they?

Fats and oils belong to a larger group of substances called **lipids**. We call fats that are liquid at room temperature “oils”. Fat is a source of energy and essential fatty acids. Some foods have almost no fat whilst others have plenty of fat.

What’s the difference between the main types of fat?

Saturated fatty acids (SFAs)

Saturated fats are considered to be the unhealthy fats. Eating too much of these has been shown to link to high cholesterol levels and risk of heart disease. Saturated fats are found in meat and other animal products and in many takeaway and processed foods.

Unsaturated fatty acids (UFAs)

Unsaturated fats are sometimes called the healthy fats and in small amounts they are helpful to the body. There are two types of unsaturated fats, polyunsaturated fatty acids (PUFA) and monounsaturated fatty acids (MUFA). Omega-3 and omega-6 fatty acids are types of PUFA that we get mainly from plants or fish. They include two essential fatty acids (EFAs) that we can’t live without or make ourselves and must get from our food.

Trans fats (TFAs)

Trans fats are produced during some manufacturing processes and have been found to be more harmful than saturated fat to heart health. For this reason, trans fats should be avoided in the diet and replaced with mono or polyunsaturated fats where possible. Natural TFAs are present (about 2% to 9% total fat) in beef, mutton and lamb and dairy foods.

Why do these differences matter?

If we have lots of SFAs in our bodies, the ones with melting points around our body temperature can start to build up and solidify (set), attract “bad” (LDL) cholesterol and block our blood vessels. This can cause heart trouble. Man-made TFAs cause similar problems and are now banned in some countries, like the USA. Fish and plants operating at lower temperatures that could risk SFA blockages tend to use fewer fats and/or more UFAs.

Why do we need fat?

Fats are a part of every cell in our body and the building blocks for many hormones, including steroids and sex hormones. We need them for our brains to work properly and when we are injured or have bacteria or poisons in our body tissue as fat helps to combat infections. Eating fat guarantees a source of our two Essential Fatty Acids, the fat-soluble vitamins A, D, E and K, and helps us absorb some vitamins like Vitamin D.

Fat also provides energy. It releases over twice the energy of proteins and carbohydrates (37 kJ versus 17 kJ per gram) when burned, so is great for active bodies. It is vital for maintaining healthy skin and hair.

Which foods contain which fats?

Saturated fats are common in animal foods like fatty meats and full fat dairy foods like butters, cheese, cream, yoghurts; and cocoa butter, palm oil, & coconut products.
Hydrogenated, partially hydrogenated and man-made trans fats are found in processed foods like hard margarines, shortening, cakes, crisps, crackers, biscuits, processed meats like salami and corned beef; dairy foods, beef and lamb have natural trans fats.
Monounsaturated fats are in good amounts in many nuts and their oils (including cashews, macadamias and peanuts), avocado and its oils, and lean meat.
Polyunsaturated (including omega-3 and -6) fat sources include common vegetable oils (canola, corn, sunflower, soybean) nuts, seeds, fish and some margarines. Oily fish like salmon, tuna, mackerel and sardines, seafood like mussels, flax oil and walnuts are good for omega-3s. Sunflower, soybean, corn, sesame and walnuts are good sources of omega-6s.

How does the fat content of foods compare?

It can be more important to think about the type of fat we're getting than the overall total. Using oil or fat for cooking or in dressings adds fat, so it's also worth thinking about how we prepare our food. And we sometimes have to balance different factors: steamed salmon may not officially count as low fat, but it contains about half the SFAs of fried fish, and provides useful omega-3 EFAs, vitamin D and protein, so is good to eat sometimes.

Food	Total fat (g per 100 g or 100 mL)	Saturated fat (SFA g per 100 g or 100 mL)	Unsaturated fat (g per 100 g or 100 mL) MUFA: PUFA ratio
Avocado oil	100	11.6	**70.6** : 13.5
Canola oil	99.9	7.2	**60 : 26.1**
Coconut oil	99.7	90.9	4.4 : 0.8
Olive oil	99.6	16.6	**65.3** : 11.8
Palm oil	99	44.7	**36.6** : 9.1
Butter	82.1	53.1	20 : 3
Avocado oil margarine (monounsaturated)	57.1	14.1	**27.8** : 12.4
Typical polyunsaturated margarine	48.6	11.2	13.6 : **20.5**
Steamed king salmon fillet	25.9	4.8	**11.9 : 4.8**
Battered and deep fried takeaway fish	20.3	9.9	**7.9** : 0.7
Tinned corn beef	12.6	5.3	5.4 : 0.4
Fried beef fillet steak	***9.3***	3.7	2.7 : 0.4
Grilled chicken breast	***4.6***	***1.5***	2.3 : 0.5
Coconut cream	26	16.4	1.9 : 0.4
Egg - boiled	**9.5**	**2.6**	4: 0.9
Cream - full fat	40	24.9	9.9 : 1.3
Tinned kidney beans in brine	***1***	***0.1***	0.1 : 0.5
Boiled white wheat flour pasta	***0.8***	***0.2***	0.1 : 0.5
Cheddar	35.6	22.7	6.7 : 1.6
Blue top standard 3.3% fat milk	3.1	***1.9***	0.8 : 0.1
Trim milk (0.5% fat) – yellow top	***0.3***	***0.1***	0.1 : trace
Macadamia nut -raw	73.7	11	**58.2** : 1.3
Walnut - raw	68.8	4.9	9 : **50**
Peanut (dry roast)	49.7	6.9	**24.6 : 15.7**
Potato crisps	29.9	10.2	**14.4** : 3.1
Avocado flesh	22.7	3.3	**14.9** : 3.1
Burger King fries	17.2	8.4	7.2 : 0.8
Boiled potato	***0.1***	***trace***	trace

Source: The Concise New Zealand Food Tables, 12th edition 2016 (2017), Food Composition Database and food labels. g = gram; MUFA = monounsaturated fatty acid; PUFA = polyunsaturated fatty acid.
Highlighted values denote a good source of a MUFA/PUFA; ***Blue*** = Low levels of total fat or SFA.

The NZ Ministry of Health suggests total fat should make up 20%-35% of our daily energy intake (and SFAs and TFAS no more than 10%). The World Health Organization recommends TFAs should make up less than 1% of our total energy. Manufacturers use a DI (daily intake) value of 70 g fat (which is 30% of an adult's 8700 kJ energy intake) to calculate %DI values on packaging.

What information is there about fats on food packets?

In NZ a food label can only legally claim it's "low-fat" if it contains less than 1.5 g total fat/100 mL liquid or 3 g total fat/100 g. Nutrition Information Panels (NIPS) in NZ must list total and saturated fat levels but do not have to give TFA , PUFA, MUFA, omega or EFA levels unless the manufacturer wants to or is making health or nutrition claims. Foods with less than 10 g fat/100 g (or 2 g/100 g for dairy) are usually considered low fat. If you check out Harold's Food Analyser you'll find that most fruit, breakfast cereals, grain foods, legumes and veggies meet these levels and some meats and dairy - but hardly any snacks.

What can we do?

Watching the level of SFAs and TFAs in our foods is a good start as these are the fats most likely to cause us harm. The Ministry of Health reckons that SFAs provide 14% to 15% percent of energy in the diets of NZ children and young people- more than the 10% recommended - but our TFA levels are below the 1% recommended levels, at around 0.6%.

To reduce how much fat - particularly SFAs and TFAs we eat - we can:

- Use less fat and replace foods or oils rich in SFAs with ones rich in PUFAs and MUFAs.
- Cut down on the amount of heavily processed foods we eat.
- Try leaner meats or fish, and low fat or lower fat dairy options.
- Think about how the total amount of energy in all the food we eat each day balances out against the energy we use - the excess is mostly stored in fatty tissue in our bodies.

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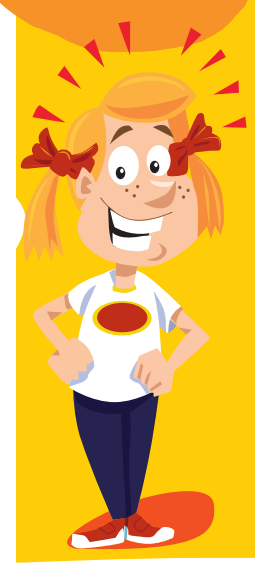

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