



Remote
Health

Course materials

Fats

and their importance for your health



Contents

- **Saturated and unsaturated fatty acids**
with consumption recommendation
- **Omega-3 fatty acids**
and their importance for your diet
- **Trans fats**
and what makes them so harmful
- **Cooking preparation recommendation**
How to use oils properly
- **Exchange ideas**
How to replace unhealthy fats

Saturated and unsaturated fatty acids ¹

with consumption recommendation



Saturated fatty acids are considered unhealthy because they are hard to metabolise by the body and, if consumed in excess, they can raise cholesterol levels, increasing the risk of cardiovascular disease and diabetes.

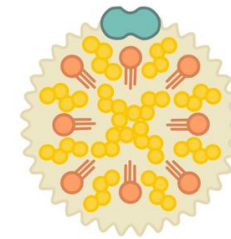


Saturated fatty acids are found in dairy products (raw milk, yoghurt, cheese, etc.), meat and eggs, etc.



However, there is not only the downside of saturated fatty acids. They also perform imperative functions in the body:

For instance, they act as messengers for the nervous system and the so-called LDL cholesterol transports fats from the liver to other human organs, where they are needed.



Cholesterol is also indispensable for the production of vitamin D in the body.

Overall, saturated fatty acids are supposed to be consumed in moderation, especially because they can be produced in the body itself and thus no deficiency can occur.

So vegans usually do not have to worry about their fat supply.



When it comes to unsaturated fatty acids, a general distinction is made between monounsaturated and polyunsaturated fatty acids, which experts classify as healthy.



Monounsaturated fatty acids are crucial for vitamin absorption in the body and can even lower cholesterol levels.

They are normally found in nuts, avocados and vegetable oils such as olive oil, which contain omega-9 fatty acids.



Polyunsaturated fatty acids have important functions including regulating blood pressure and are also essential to healthy cell walls and the brain.

A distinction is made between omega-3 fatty acids (mackerel, linseed oil) and omega-6 fatty acids (sunflower oil, dairy products, meat).





Unlike monounsaturated fatty acids, polyunsaturated fatty acids are vital, i.e. they cannot be produced by the organism itself and people have to take them in through their diet.

Although both monosaturates and polysaturates are healthy, they are extremely high in calories and should not be overconsumed, as excess calories will lead to weight gain despite the quality of the fatty acids.



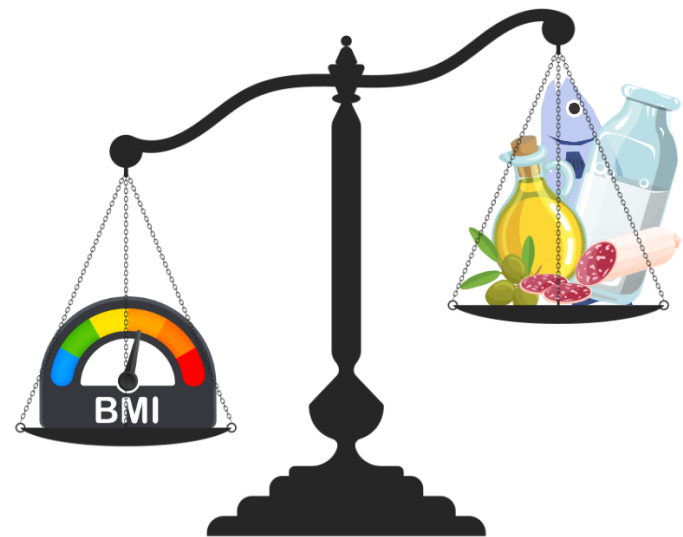
Consumption recommendation

The ratio of saturated to unsaturated fatty acids ought to be around 1:2, with slightly more monounsaturated than polyunsaturated fatty acids.

The recommended intake is given as 1 gram of fat per 1 kg of body weight. This would mean that a person weighing 55 kg is supposed to consume around 55 g of fat in his diet.

However, it should be noted that this estimation assumes that the person's Body Mass Index (BMI) is within the healthy range and that his weight is therefore normal.

Someone who weighs 100 kg should not eat 100 g of fat a day, but at most 80 g, for this is the upper limit.



Omega-3 fatty acids ¹

and their importance for your diet



Omega-3 fatty acids are vital because they can keep cells stable, improve memory, strengthen the immune system and help against inflammation.



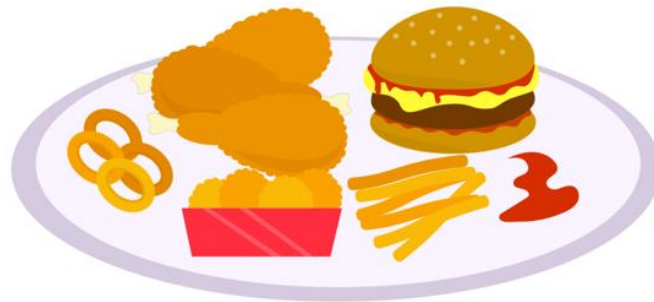
They generally consist of three components: eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and alpha-linolenic acid (α -linolenic acid, ALA for short).

EPA and DHA are regularly found in oily fish and certain algae, whereas ALA is contained in linseed or rapeseed oil, flaxseed and walnuts.



Trans fats ¹

and what makes them so harmful



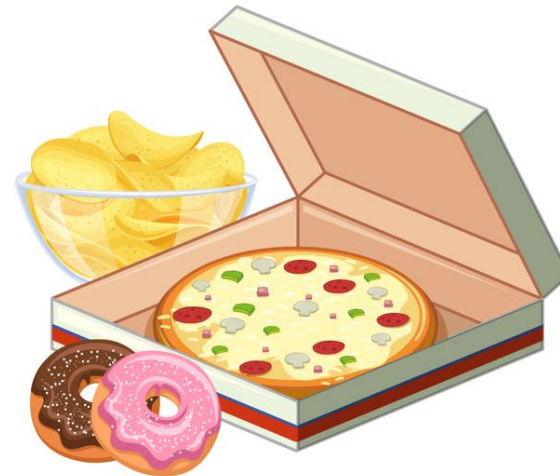
Trans fats have an adverse effect on blood metabolism, give rise to cardiovascular disease and increase cholesterol levels.



Trans fats are formed through intense heating of unsaturated fatty acids, which explains why unsaturated oils should generally never be heated too high when cooking, especially if they are in their native form.



Due to massive industrial production of crisps, sweets and ready-made products, trans fats are unfortunately not uncommon. That is exactly why this type of diet should be avoided as far as possible.



Cooking preparation recommendation ¹

How to use oils correctly



The processing of oils determines which type of cooking they are suitable for:

Refined oils are more heat-resistant and therefore more suitable for cooking.



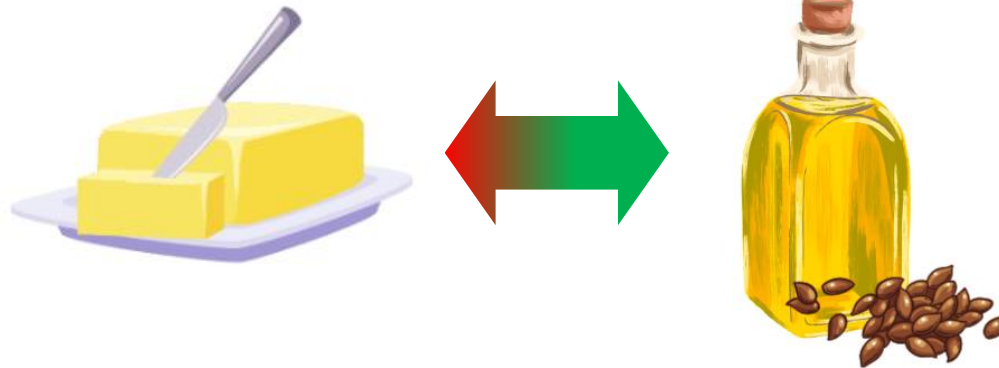
Cold-pressed (virgin) oils, which contain more vitamins, are more aromatic and better suitable for salads.



Overheating virgin oils would cause them to lose all vitamins and produce trans fats.

Exchange ideas ²

How to replace unhealthy fats



The following examples are considered **healthy fats** and contain so-called **essential fatty acids** (i.e. polyunsaturated fatty acids that must be obtained through diet, because the body can't produce them):

- Unrefined, organic linseed oil
- Linseed
- Walnuts
- Wheat germ
- Soybeans
- Coldwater fish such as trout, mackerel, carp, herring, salmon or tuna
- Sesame, safflower and sunflower oil
- Dairy products with reduced fat rate

The following examples are considered **unhealthy fats** because they contain **saturated fatty acids or trans fats** which cannot be well processed by the body:

- High-fat dairy products (including full-cream milk, cheese, cream, quark, creamed butter)
- Red meat (e.g. pork, beef, lamb or veal)
- Sausage (e.g. liver sausage, tea sausage, cervelat sausage or black pudding as well as salami or cabanossi)
- Ready-made products such as biscuits, potato chips and frozen fries, croissants, donuts, microwave popcorn
- Industrial ready meals in cans or bags
- Sugary soft drinks like lemonade
- Solid shortening (such as margarine)

Sources:

1. AOK Redaktion. (2021, 21. May). Gute Fette, schlechte Fette: was unterscheidet sie? AOK – Die Gesundheitskasse. <https://www.aok.de/pk/magazin/ernaehrung/gesunde-ernaehrung/gute-fette-schlechte-fette/>
2. M. (2019, 31. January). Ernährungstipps: Gute und schlechte Fette. vital.de. <https://www.vital.de/gesunde-ernaehrung/ernaehrungstipps/ernaehrungstipps-gute-und-schlechte-fette-65.html>



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