

Not all fats are created equal

Fats are one of the most valuable foods in our diet. Along with carbohydrates, fats have undergone a major change since the introduction of industrialized food processing.

Fats serve four purposes in the diet

1. They provide the most amount of energy (yes more than carbohydrate) and contain important nutrients such as essential fatty acids, vitamins and sterols.
2. Fats are required to make hormones, prostaglandins (anti-inflammatory)
3. They make food taste better.
4. Fats created satiety. By having fat in your diet messengers are sent throughout your body telling you that you are no longer hungry.

You may have heard of the terms saturated, mono-unsaturated, poly-unsaturated fats and trans fats.

These terms indicate how stable they are. Saturated are the most stable and poly are the most unstable. If a fat is unstable it has the chance to go rancid easily and this is not good for your body. When a fat goes rancid it produces harmful free radicals which means toxins, pollutants and other harmful environmental chemicals can attach to these poly-unsaturated fats and travel around your body making you feel sick or impair your ability to repair and heal.

Trans fats are the most toxic unsaturated fats, they are high in deep fried foods, chips, donuts, snack food, margarine, cooking oils (except olive oil) and take away food. Yes a lot of the foods we love to eat. My motto is to keep the balance in your diet and limit your intake of these nasty fats and include the 'good' fats.

All fats and oils are made up of a combination of fatty acids. None is completely saturated or unsaturated – not even lard – as you may have thought. In the upcoming charts, we have laid out the most common fats' and oils' fatty-acid concentrations, as well as the highest temperature we suggest you cook them at.





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SATURATED, MONOSATURATED AND POLYUNSATURATED FATTY ACIDS

Polyunsaturated fatty acids (PUFAs) including omega 6 fatty acids (06) and omega 3 fatty acids (03), are delicate and easily oxidized by light, air or heat. Oxidized fatty acids are what make an oil or fat rancid. Saturated fatty acids (SFAs) and monounsaturated fatty acids (MUFAs) are less susceptible to being oxidized and can stand up to more cooking heat than PUFAs can.

OMEGA 6 AND OMEGA 3

While both 03s and 06s (remember, those are both PUFAs) are necessary nutrients for human health, 03s are anti-inflammatory, but 06s are inflammatory and can contribute to everything from heart disease to joint pain to skin problems. The key is to balance them. A good ratio of 06:03 is 1:1-4:1. The typical Western diet has devolved to around 20:1-40:1, hence our inflated incidence of chronic inflammatory diseases like diabetes, heart disease, cancers, digestive disorders, etc. It is interesting to note the differences in not only the amounts of 06 and 03 in all the oils in the charts below, but also the 06:03 ratios. You find much higher amounts of 06 and generally higher 06:03 ratios in the non-paleo oils than the paleo ones.

SATURATED FATTY ACIDS

Some believe saturated fat are bad, this is not entirely true. Lard, fatty meat, coconut oil and saturated fat in general have been blamed for heart disease. Heart disease and obesity are only increasing in the Western world, and it is not because we are all eating too much saturated fat: it is because of inflammation caused by Western foods, including corn oil, safflower oil and others on that list.

COOKING TEMPERATURES

Notice the cooking heat for all these oils and fats. (By the way, we did not include the cooking temperatures on the non-paleo oils because you will not be cooking with them.) Some of the paleo oils should never be cooked with at all because they are so high in PUFAs and are easily oxidized. That is why some of the are marked "None" in the cooking temperature column and should just be used as salad dressings, etc. In general, use tallow, lard or coconut oil for cooking and extra virgin olive oil for lower-heat cooking. Also, for all those high-PUFA paleo oils, make sure you keep them in a cool, dark place and discard them six months after opening them.



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LARD

Where do you get lard, and what on earth is that stuff? Lard is just clarified or rendered pig fat. You can save your previous bacon drippings in a glass jar and cook with that or you can find a local source for pasture-raised animal fat (Dubbos Daily Scoop and Dubbo Health Food).

TALLOW

Tallow is rendered fat from meat other than port, often beef. You can make your own by buying some high-quality (no pesticides, preferably grass fed). You can also buy grass-fed tallow online or at your local Health Food store. Most tallow you can buy in the store is hydrogenated, so you will want to stay away from that. And unless tallow or lard comes from a grass-fed source, you will want to avoid it, since its fatty-acid composition will not be totally favourable.

NON-PALEO OILS

The following is a list of oils you should avoid. They contain more PUFAs, especially omega 6's and fewer SFAs and MUFAs than the paleo oils in general. They are also usually highly processed, heated and chemically treated because they come from seeds that are difficult to extract oil from. That means that by the time the oil is packaged, it is at least partially oxidized or rancid. Restaurants usually use these oils, and they often use the lowest grade of them to boot. That means they have probably been chemically refined at high temperatures, hydrogenated and chemically deodorized or some combination of those. Also, many of these oils come from genetically modified (GM) crops, which are suspected to be seriously detrimental to our health.



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ACCEPTABLE PALEO OILS AND FATS							
Oil or Fat	SFA%	MUFA%	PUFA%	O6%	O3%	O6:O3	Cook Temp (Highest)
Avocado oil	12	70	13	12	1	12:1	None
Butter*	51	21	3	2	.5	4:1	Med
Coconut oil	92	6	2	2	0	n/a**	Med High
Cod liver oil	23	47	23	4	19	.2:1	None
Flax oil	9	20	66	13	53	.2:1	None
Ghee	65	32	2	2	0	n/a**	High
Hazelnut oil	7	78	10	10	0	n/a**	Med
Lard	40	45	11	10	0	n/a**	Med High
Macadamia oil	13	84	4	2	2	1:1	Med
Extra Virgin olive oil	14	73	11	11	0	n/a**	Med
Palm oil (unrefined)	50	39	9	9	1	9:1	Med
Tallow	50	42	4	4	0	n/a	High
Walnut oil	9	23	63	53	10	5.3:1	None



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OILS AND FATS TO AVOID						
Oil or Fat	SFA%	MUFA%	PUFA%	O6%	O3%	O6:O3
Canola oil*	7	63	28	19	9	2:1
Corn oil	13	28	55	54	1	54:1
Cottonseed oil	26	18	52	51.5	0.5	103:1
Margarine**	15	39	24	22	2	11:1
Peanut oil	17	46	32	32	0	n/a
Safflower oil	8	14	75	74.5	0.5	150:1
Soybean oil	15	23	57	50	7	7:1
Sunflower oil	10	20	66	65.5	0.5	131:1
*Canola's fatty acid composition is not that bad, but there are other problems with it: it is often highly processed and it contains erucic acid, which has been found to have an allergenic effect on people.** Margarine is made up of 15% trans fats, which are associated with heart disease.						

Fat Servings

Serving Size varies per food – see list for details.

Child: 1-3 servings or more

Adult: 2-3 serves a day

Serving size = 13-15g fat

Choose from the following:

- Olive oil or other oil (1 Tablespoon)
- Coconut oil (1 Tablespoon)
- Ghee (1 Tablespoon)
- Lard (1 Tablespoon)
- Nuts/seeds (25gms/ ¼ cup)
- Chia seeds (1/4 cup/25g)
- Avocado (1/2 of fruit)
- Full-fat milk (1/2 cup)
- Full cream Yogurt (1/2 cup)