

The importance of fat

The Monounsaturated Fats

Biochemically speaking, these fatty acids sport a single double bond in their fatty acid chain. The more double bonds a fatty acid boasts, the more “fluid” it is. They are generally liquid at room temperature.

Monounsaturated fats are found in numerous oils; including olive oil

The Polyunsaturated Fats

Polyunsaturated fats have more than one double bond in their fatty acid chain. They tend to be liquid even when refrigerated. Their problem is they also tend to go rancid easily, particularly when heated. It sounds nasty and you should see it, free radical damage galore. When we heat them, and we often do, they often become oxidized. When doing that we've opened ourselves up to all kinds of free radicals everywhere from cell membrane damage, to wrinkles, to arterial plaque buildup. Polyunsaturated fats are found in grain products, soybeans, peanuts and fish oil.

Enter Essential Fatty Acids

Omega-6. It's important. Omega-6 fatty acids, found in corn and other grains as well grain-fed livestock, play a crucial role in dermal integrity and renal function among other things. But if left unchecked, they run amok, and spur inflammation. **Ratio matters!** What keeps these guys in check? Omega-3s. Ignored for decades by the medical establishment, they're finally garnering respect.

Omega-3s are found primarily in fish, algae, flax and nuts. You also find good portions of them in eggs from chickens that are fed fish or flax meal. ALA (think flax) as well as EPA and DHA (think fish oil).

Omega-3s aid circulation by naturally thinning the blood, fight systemic inflammation, support brain function and ease symptoms of depression, anxiety and even ADHD. Now back to the ratio matter.

Estimates vary, but experts generally characterize **Western diets as anywhere between 10-30 parts omega-6 to 1 part omega-3 (10-30:1). What ratio should we be getting? What did our primal ancestors likely eat? Try 1:1.** Although many in the establishment will try to tell you that 4:1 is good enough.

Grain-fed meats are much higher in omega-6 fatty acids and lower in omega-3 than grass-fed meats, but not everyone has access to grass-fed meats. The best way to combat the plethora of omega-6 is to watch your ratios and to consume more omega-3s. The sky high ratio of typical Western diets sets us up for inflammation, high blood pressure, blood clots, depressed immune function and sub-optimal brain development and neurological function.

And so we return to the question of all those “healthy” monounsaturated and polyunsaturated fats. There's more to the question. The omega ratio of “monounsaturated” soybean oil is 7:1. Not too bad, but not great. Corn oil is 46:1. **Now that's ludicrous!**

So, what about the other oils? What about olive oil? The ratio for olive oil is 3:1, which isn't great in and of itself. But there's yet another wrinkle. Olive oil is 75% monounsaturated and 14% saturated, which

means that only 11% of it has the polyunsaturated ratio to begin with. In these relatively small amounts, ratio isn't as much of a concern, particularly when the oil contains so many other good compounds like polyphenols that fight inflammation damage caused, in part, by the problematic ratio. Corn oil, on the other hand, contains only about 25% monounsaturated fat (and 13% saturated). The ratio matters big time here.

The Saturated Fats

Before we move on, we can't forget the chemistry note. Saturated fats have all available carbon bonds paired with hydrogen atoms. I know, not the most interesting, but the important part here is that they're highly stable. They don't have the same tendency toward rancidness as polyunsaturated fats, even if heated. This is a good thing.

I, like many others, have been bold enough to recommend saturated fats found in animal products and some tropical oils as part of a healthy diet and I'll say it again. **Saturated fats serve critical roles in the human body.** They make up 1/2 of cell membrane structure. They enhance calcium absorption and immune function. They aid in the body's synthesis of the essential fatty acids and provide a rich source of fat soluble vitamins. Last but not least, they provide cholesterol. Yes, the human body makes its own anyway, but it all balances out. Naturally occurring substances.

Do we even really have to cover Trans fats or Interesterified Fats? Just know that they are bad!

My suggestion: if hydrogenated is mentioned anywhere on the label, run like mad.