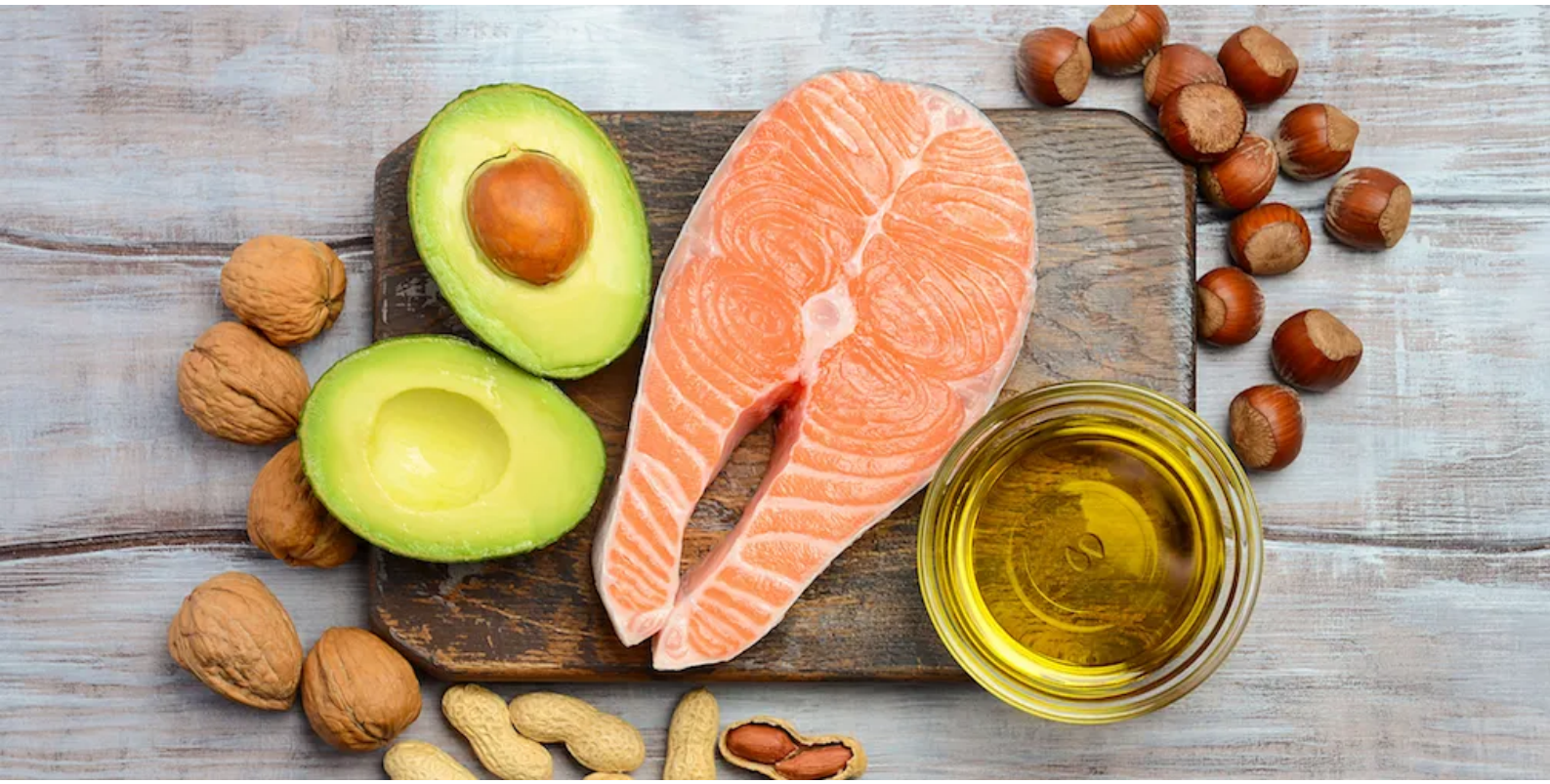
UNDERSTANDING FATS

What are they and how can they improve or regress our health



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There is a good chance that your first instinct when you see the topic of fats is that they are bad for us. You have been told that they cause heart disease by clogging your arteries and you should be trying to eat as little of them as possible. If this is your gut reaction I implore you to keep reading with an open mind!

What are fats?

Fats, like protein, are an essential nutrient in our diet. We have discussed how protein is the basic building block of our body's structure and function, however, fat is protein's partner in crime.

Fat molecules are long strands of carbon and hydrogen with different bonding that classifies them as monounsaturated, polyunsaturated, saturated, and transfats. These molecules serve as the walls to our cells as well as the building blocks for our hormones. If you think of each of your cells as a house, the fat makes up the entire perimeter. It acts as a barrier that can decide what to and what not to let in or out.

Are fats harmful to our health?

Fat has been demonized in the past 50 years, however, we do need it as a part of our diet. Fat is an essential nutrient and makes up roughly 60% of the human brain mass. One study states that:

"fatty acids are among the most crucial molecules that determine your brain's integrity and ability to perform. Essential fatty acids (EFAs) are required for maintenance of optimal health but they can not synthesized by the body and must be obtained from dietary sources".

Humans also have tens of thousands of miles of nervous tissue in our body that is covered in fat (75-80%) as well as every cell membrane in our body (~50%).

It is also noteworthy to mention that our brain and nervous system rely heavily on fatty acids as their main source of fuel to the mitochondria. Mitochondria are the energy producers of our cells. We also know that the brain consumes ~20% of our caloric intake. Mitochondria dysfunction is present in many lifestyle-related diseases and neurological conditions. This means that often these patients are not metabolically healthy (they no longer have the ability to utilize fatty acids for fuel as well and rely more on glucose) which leads them to an inability to fuel their nervous tissue properly, thereby, inevitably leading to the destruction of their NS.

Fats are an essential nutrient and have an important role in our biology. If they are this important and most of the EFAs cannot be made in the body where do we get it from? What type should we be getting?

Healthy Fats and Unhealthy Fats

Fats in our diet come from animals or plants. Let's think about our ancestors and how they would have consumed fats. They would have only consumed fats in their natural state (i.e from an animal or within the foods they were consuming).

The recommendation of fat consumption is often to avoid animal fats and fats with higher saturated fat content and to focus more on unsaturated fats from plant sources. The recommended fats are often in the category of processed seed oils.

Processed seed oils are canola, corn, cottonseed, soy, sunflower, safflower, grapeseed, and rice-bran. These are the main ones, however, I believe there is a concern for overconsumption of other seed oils as well given the processes to derive them from their natural form. (1).

To obtain these oils the plants they are derived from are processed and heated to a temperature that turns them into the oil. They are not naturally an oil. This makes the molecules unstable and rancid. Being unstable means that when they are consumed and used to build our cell walls they will be less resilient. For example, the walls of our arteries can break when stressed. The rancid aspect of these oils relates to the increase in inflammation we see throughout our body with increased seed oil consumption.

Due to the process of obtaining these oils, they become highly unstable and inflammatory. This contributes to metabolic dysfunction and helps initiate or further disease processes.

Remember how we discussed the large amount of fat that comprises our cell walls, nervous system, brain, and hormones? If we are consuming these types of fats we are building our house with brittle twigs that will eventually collapse when a storm comes (i.e. viruses, parasites, bacteria, and lifestyle-related diseases.)

We are well aware at this point that excess sugar is detrimental to most Americans' health but would you be surprised if I told you that this is less of a concern (less doesn't mean it's not a concern) to me than the exclusion of processed seed oils?

My rule of thumb is that if you can't take the plant or animal with your hands and extract the fat or make oil from them for consumption, then should you be consuming it at all?

The next time you are at a grocery store take a look at some of the common things you are consuming. I can almost guarantee you that if you look at the ingredient list there is some form of vegetable oil listed. They are in everything...

In the past 100 years, our seed oil consumption has increased from 0 to ~25% and our saturated fat consumption has decreased due to governmental recommendations. Has our health increased or decreased? I'll let you think about that one...

Healthy Fats (Not all-inclusive):

- Animal Fats (Grassfed Butter, Tallow, Ghee, dairy, etc)
- Plant Fats (Coconut oil, avocado oil, olive oil, nuts & seeds)

Side note do not cook high heat with olive oil. Olive oil has a low smoke point and can become rancid with high heat cooking. Choose Avocado oil instead.

Unhealthy Fats:

- Corn, Canola, Soybean, cottonseed, sunflower, safflower, grapeseed, rice bran, rapeseed, ANYTHING that you cannot take the plant and make the oil with your hands and a filter.

How much fat should we be consuming?

The RDA for fat intake is 20-35% of total calories or 44-77g for 2000 calories/day. Remember that this is the baseline amount to stay alive.

A more optimal fat intake, in my opinion, is 40-50% of total calories at 2000cal/day 100-120g/day. This is dependent of course on goals and carbohydrate intake given that as fats go up carbs should go down and vice versa (which we will discuss in a later article).

Take-home messages:

Fats are healthy and essential if we choose the right sources

Fats should comprise 40-50% of our total caloric intake

Animal fats (specifically saturated) are essential to our health

Avoidance of Processed Vegetable/Seed Oils

THANK YOU FOR READING!

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