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Simplifying Fats and Oils

Do you find it overwhelming sometimes to make sense of the dos and don'ts of what fats you should be eating and how often? Are you confused about what types of oils are healthy and what oils should be used for certain types of cooking? If you answered yes to either of these questions or just want more information about this important macronutrient, this handout is for you!

Fats: The Basics

Fats are an essential macronutrient for our body. We use fats in all the membranes of our cells and for multiple other functions such as energy storage, providing cushion and insulation to our organs, and cell signaling. Many of our hormones, especially sex hormones, are made from fat. Fat in our diet is also important to effectively absorb fat-soluble vitamins (Vitamin A, Vitamin D, Vitamin E, and Vitamin K). Fats are divided into groups based on their individual structure. It is important to know the difference between types of fats because different types can have a drastically different effect on our bodies. Studies have shown that "low fat" and "fat free" foods are not healthy as we are not consuming the fat that is required for our body to function on a daily basis. Full fat, eaten in a thoughtful and mindful way, is a much better option for optimal health. Here is a breakdown of the types of fats and examples of each:

Overall goal: Choose fats that contain Omega-3 and Omega-9 fatty acids over foods that contain Omega-6 fatty acids. Most processed foods contain Omega-6 fatty acids in the form of canola, corn, safflower, and sunflower oils (all pro-inflammatory and should be minimized whenever possible-see below for healthy options) and, therefore, are high in most individual's diets. Emphasizing Omega-3 and Omega-9 fatty acids will help to reduce the overall amount of Omega-6 fatty acids consumed, which helps to lower systemic inflammation and improve lipid profiles. The optimal ratio of Omega-6 to Omega-3/Omega-9 should be 4:1. Many American's have a ratio closer to 16:1 or higher, increasing systemic inflammation which is a precursor to chronic disease and poor health.

Saturated Fat: You should obtain <10% of total calories from saturated fat daily. Saturated fats are mainly obtained from animal fats and are usually solid at room temperature. Healthy examples include butter, ghee, and coconut oil.

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Fats: The Basics (continued)

Trans-Fat: You should NEVER consume trans-fats. Trans Fats are found in both animal and plants in small amounts and in higher amounts in some processed foods. These fats that have been industrially altered through a process called hydrogenation to make the oil more shelf stable and changes the oil from liquid to solid form. Examples include margarine and shortening. **TRANS FATS SHOULD BE 100% AVOIDED!**

Monounsaturated Fat (MUFAs): You should liberally consume Omega-9 fatty acids contained in MUFAs. These fats are from both animal and plant sources and are liquid at room temperature. It is believed that Omega-9 fatty acids help to reduce systemic inflammation and improve lipid profiles. This can be beneficial to overall health when preferentially consumed over other types of fats. Examples of healthy MUFAs include olive, walnut, and avocado oils.

Polyunsaturated Fat (PUFAs): You should liberally consume Omega-3 fatty acids contained in PUFAs and minimize Omega-6 fatty acids. (See Overall goal above for additional information on unhealthy PUFAs.) These fats are from both animal and plant sources and are liquid at room temperature. Omega-3 fatty acids are present in salmon, flax seeds, chia seeds, tuna, and other sources. Supplements of Fish Oil, including EPA and DHA, are Omega-3 fatty acids. Omega-6 fatty acids are found in high amounts in most vegetable oils including cottonseed, peanut, and vegetable oils.

Oils: How to Choose What to Use?

1. Pick a fat that is minimally processed. Tag words to indicate this are “cold-pressed”, “expeller pressed”, “extra virgin” and “virgin”. “Virgin” oils are made using physical or mechanical processes that do not raise the oil above 29°C and do not involve mixing in solvents or other oils. “Extra virgin” meets the same standards as “virgin” and denotes this oil is from the first press of the source of the oil and is the highest quality oil.

2. Choose an oil with an appropriate smoke point for what you are using it for. See the information below to determine which oils are best for which methods of cooking (or using raw).

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Smoke Points

Smoke points of oils are exactly what they seem to be-the temperature at which an oil, when heated, starts smoking. Once an oil has reached its unique smoke point, the oil starts to break down and is no longer good to consume. This table below references oils this author believes are the healthiest and their classification, best use in food preparation, and unique smoke point.

Type of Oil	Uses in Foods	Classification of Oil	Smoke Point °F
Extra Virgin Olive Oil (EVOO)	Best used raw in salads and dips	Monounsaturated	375 °F
Coconut Oil	Baking and low temp cooking	Saturated	350 °F
Butter	Baking and low temp cooking	Saturated	350 °F
Ghee (smoke point increases the more purely refined)	Baking and low temp cooking	Saturated	375-485 °F
Sesame Oil	Salads and medium temp cooking	Polyunsaturated	410 °F
Virgin Olive Oil	Salads, dips and low to medium temp cooking	Monounsaturated	420 °F
Almond Oil	Sauces and low to medium temp cooking	Monounsaturated	420 °F
Avocado Oil	Stir frying, roasting, frying, and higher temp cooking	Monounsaturated	520 °F