

## Understanding Fats and Oils: A Comprehensive Guide

Welcome to our comprehensive handout on fats and oils! This guide aims to provide you with valuable insights into the different types of fats and oils available, their sources, and how to make informed decisions about incorporating them into your diet.

Fats and oils are essential macronutrients that play crucial roles in maintaining good health. Fats and oils have an impact on our full body systems, as outlined below. It's why one of our core principles for eating for health includes the **Fat/Fiber/Protein** mantra, and the reminder to consume all three factors with each meal or snack.

But not all fats are created equal. Understanding the differences between various types of fats helps us choose based on quality and benefit and then we can further refine those choices to meet individualized needs.

In this handout, we'll explore the health benefits of fats and oils, look at the most beneficial food and culinary sources, and answer some frequently asked questions that arise regarding the consumption of fats and oils.

*Please note that we explore fats in more detail in the Fat or Fiction module within the Full Body Systems Cardio Intensive.*



## THE HEALTH BENEFITS OF FATS AND OILS

Fats are not only a valuable source of energy but also play a fundamental role in supporting various aspects of our overall health and healing. From hormone regulation to brain function, fats are essential for the proper functioning of our full body systems. Here's how fats contribute to good health in different ways:

- **Hormone regulation:** Fats are vital components in the production and regulation of hormones in the body. Hormones are chemical messengers that control numerous physiological processes, including metabolism, growth, and reproductive functions. Fats, especially cholesterol, serve as the building blocks for hormones like estrogen, testosterone, and cortisol. Ensuring an adequate intake of healthy fats helps maintain proper hormone balance.
- **Brain function and nervous system:** The brain is composed of about 60% fat, with a significant portion being omega-3 and omega-6 fatty acids. These essential fats are critical for brain development and function throughout all stages of life. Omega-3 fatty acids, in particular, are associated with improved cognitive function, memory, and mood regulation. Consuming a diet rich in omega-3 fats can support brain health and reduce the risk of neurodegenerative diseases.
- **Cell structure and membrane integrity:** Fats are essential components of cell membranes, the outer layer of cells that control what enters and exits them. Cell membrane integrity is crucial for maintaining the cell's stability and facilitating various cellular processes. A diet with a healthy balance of fats ensures strong and flexible cell membranes, contributing to overall cell health.
- **Nutrient absorption:** Some vitamins, such as A, D, E, and K, are fat-soluble, meaning they require fats for absorption. Healthy fats, especially when consumed with nutrient-rich foods, enhance the body's ability to absorb and utilize these essential vitamins, supporting proper growth, immune function, and bone health.
- **Inflammation and immune system:** Omega-3 fatty acids, found in fatty fish, flaxseeds, and walnuts, have anti-inflammatory properties. A balanced intake of omega-3 and omega-6 fats helps regulate the body's inflammatory responses. Chronic inflammation is linked to various health conditions, including heart disease, arthritis, and certain cancers. By promoting a healthy inflammatory balance, fats can contribute to a stronger immune system and improved overall health.
- **Skin and hair health:** Fats play a role in maintaining healthy skin and hair. Omega-3 and omega-6 fatty acids help support skin barrier function, keeping it moisturized and protecting it from external stressors. Additionally, fats are necessary for the absorption of fat-soluble vitamins that contribute to skin health.



## BEST SOURCES OF FATS AND OILS

- **Extra virgin olive oil and olives:** Olive oil, especially extra virgin olive oil, is rich in monounsaturated fats and is commonly used in Mediterranean diets. Olives are also a good source of healthy fats.
- **Unrefined avocado oil:** Avocado oil is extracted from the flesh of avocados and is a great source of healthy monounsaturated fats.
- **Virgin coconut oil:** Virgin coconut oil is derived from the meat of fresh coconuts. The oil is extracted through a process that involves pressing the coconut meat, separating the oil from the water and solids. It's a great source of medium-chain triglycerides (MCTs) with myriad potential health benefits.  
*Note that virgin coconut oil is different from refined coconut oil, as it is made from fresh coconuts without undergoing chemical refining or bleaching.*
- **Nut & seed oil:** Various nuts such as almonds, walnuts, and macadamia nuts can be used to extract oils that are high in monounsaturated and polyunsaturated fats.  
*Note: Nut and seed oils such as flax, hemp, sesame and walnut oils should not be used over heat.*
- **Tallow:** Tallow is a type of animal fat that comes from beef or mutton and is often used in traditional cuisines. It's rich in saturated fats and has been used historically in cooking and skincare products. While it contains a higher proportion of saturated fats, it also contains small amounts of monounsaturated and polyunsaturated fats.
- **Cacao butter:** Cacao butter is a natural fat extracted from cacao beans, used in chocolate production and cooking. It offers a balanced mix of saturated and monounsaturated fats and contains antioxidants.
- **Nut & seed butters:** Nut butters like almond butter and sesame butter are made from ground nuts and contain healthy fats.
- **Grass-fed butter/Ghee:** Butter and ghee (clarified butter) are derived from milk and are a source of saturated fats.  
*Note that ghee does not contain milk proteins. You can read more about ghee [here](#).*
- **High fat dairy:** Dairy products like full-fat yogurt, cheese, and cream contain health supportive saturated fats, as long as dairy is tolerated.
- **Egg yolks:** Egg yolks are a source of healthy fats, vitamins, and minerals.
- **Fattier cuts of animal protein:** Fattier cuts of meat like salmon, mackerel, and beef can be sources of healthy fats.

**Choose organic, grass-fed, wild-caught when possible:** Opting for organic, grass-fed, and wild-caught options can provide higher quality fats and oils while minimizing potential exposure to harmful chemicals or additives.



## FAT AND OIL FREQUENTLY ASKED QUESTIONS

### **Q: Is fat safe for the liver?**

**A:** Yes, healthy fats are generally safe for the liver when consumed in moderation. In fact, certain fats like omega-3 fatty acids may support liver health. For those with issues related to fat digestion, fat intolerance, or gallbladder challenges, modifications and support for fat digestion may be necessary, but fats should not be avoided.

### **Q: Do fats need to be avoided with high cholesterol?**

**A:** The relationship between dietary fats and cholesterol levels is complex. While saturated and trans fats can potentially raise LDL cholesterol (the “bad” cholesterol), and contribute to high triglycerides, not all fats have this effect. Unsaturated fats, especially monounsaturated and polyunsaturated fats, can have a neutral or positive impact on cholesterol levels. *(To be explored further in the Fat or Fiction module inside of Full Body Systems Cardio Intensive.)*

### **Q: Are animal proteins unhealthy?**

**A:** Consuming animal proteins can be a part of a balanced diet. However, excessive consumption of processed meats and very high amounts of factory farmed red meats may increase the risk of certain diseases, including cancer. The consideration of meat quality and the fats that are on that meat is key.

### **Q: Is avocado oil safe?**

**A:** Yes, avocado oil is safe and can be a healthy choice due to its high monounsaturated fat content. Unrefined avocado oil is best.

### **Q: What are seed oils? Are they unhealthy?**

**A:** Seed oils, such as soybean oil, corn oil, and sunflower oil, are extracted from seeds. While they may have a high omega-6 fatty acid content, excessive consumption of omega-6 fatty acids relative to omega-3 fatty acids can be problematic. A balanced intake of omega-3 and omega-6 fatty acids is recommended. *(To be explored further in the Fat or Fiction module inside of Full Body Systems Cardio Intensive.)*

### **Q: Should one avoid omega 6's?**

**A:** Omega-6 fatty acids are essential for the body, but an excessive intake relative to omega-3 fatty acids may lead to inflammation. It's important to maintain a balanced ratio of omega-6 to omega-3 fats in the diet. In addition, certain omega-6 oils such as evening primrose oil and borage oil can be anti-inflammatory and highly beneficial for certain individuals.



## FATS AND OILS

### DEFINITIONS

#### **Cold Pressed:**

Extracted without using heat.

#### **Expeller Pressed:**

Extracted using a screw-type machine that presses the oil out. Can be done slowly, with very little heat, or can be done quickly with lots of friction and high temperatures.

#### **Extra Virgin:**

The first cold pressing which contains the best tasting and most healthful oils. Must contain less than 1 percent acids. By definition, this is cold-pressed and first pressed, so don't need to see these terms on the label. Must say 100% extra virgin, or may be a blend.

#### **Virgin:**

The first cold pressing, but can contain a little more acids than the extra-virgin (1-3 percent).

#### **High Oleic:**

Seeds that have been genetically manipulated to decrease the amount of essential fatty acids so that they have a longer shelf life.

#### **Unrefined Oils:**

Are left in their state after pressing – no filtering. These oils tend to be more flavorful and richer in nutrients, however they have a very low smoke point.

#### **Refined:**

Oils have their impurities filtered out, to increase stability and allow for higher temperature cooking. The processing can use toxic solvents, caustic soda, bleaches and phosphoric acid.

#### **Smoke Point:**

Stage at which a heated oil begins to smoke, just before it bursts into flames.

### BUYING OIL

Oil should smell and taste like the food it came from. It should be stored in glass and should have a date of manufacture/best used by date.

Ideally pressing temperature is less than 115 degrees and pressed in absence of light and oxygen (omegaflo process). Store in refrigerator.



## COOKING WITH OIL

### HIGH HEAT

Heat oil until aromatic, then quickly add food. If heated until ripples form, oil is too hot and close to smoke point. Let cool, wipe out and start again. Another option is to cook with a small amount of water in the pan and then at the end of cooking, add the oil. This way the oil is not in contact with heat for very long and yet you can keep the flavor of the food.

**Coconut oil:** Contains mostly saturated fat and therefore highly stable at high temperatures. Lower in calories than most fats and oils because of high amount of medium-chain fatty acids that don't get stored as fat but rather burned as energy.

**Butter:** An animal fat, which is mostly saturated. Contains whey and casein; buy only organic, ideally grass-fed, raw is best.

**Ghee (clarified butter):** Pure butterfat made from removing milk solids and water from butter (low heat and cheese cloth filter). Great for cooking since it is pure fat, with the milk proteins removed.

**Avocado oil:** High in monounsaturated fatty acids with a higher smoke point. Neutral flavor makes it good for sautéing, roasting, searing, and vinaigrettes.

### MODERATE HEAT (LIGHT SAUTE)

**Olive oil:** Quite stable. Store in a tightly closed container, ideally colored glass, in a cool cupboard for up to a year.

**Sesame oil (unrefined):** Also very stable because it contains a high amount of natural antioxidant. Toasted is made from toasted seeds and is dark in color with a strong aroma. This oil can burn so use as a seasoning agent or garnish.

**Canola/grape seed oil:** This oil is controversial because of its processing. Some people say that it needs to be avoided altogether because it is such a hard seed that getting the oil out requires a lot of processing. Also contains 10 percent omega-3 oils, which makes it very fragile. Others say it is OK for baking at low temperatures. Others say that in spite of omega-3 oils, it is able to withstand higher heat.

### COLD USE/RAW (NO COOKING)

**Almond Oil**  
**Apricot kernel Oil**  
**Flax Seed Oil**

**Hazelnut Oil**  
**Hemp Seed Oil**  
**Pumpkin Seed Oil**

**Sunflower Seed Oil**  
**Walnut Oil**



## EMBRACING A BALANCED APPROACH TO FATS AND OILS

In conclusion, fats and oils are an essential part of a balanced diet, providing us with vital nutrients and energy for overall health and healing. Incorporating a variety of healthy fats, such as those found in the sources listed above can offer a myriad of benefits for heart health, brain function, hormone regulation, and more.

While fats play a crucial role in maintaining good health, it's essential to recognize that individual differences exist. Some individuals may have specific health conditions, such as gallbladder issues, which can impact their ability to digest fats effectively. In such cases, personalized modifications and guidance can help navigate the dietary landscape. Remember, each person's dietary needs are unique, and careful assessments help us to create personalized and sustainable recommendations for the consumption of fats and oils.

