

All You Need to Know About Oils and Cooking

With the plethora of different cooking oils available on the market it can be confusing to know which oil to use for what purpose. For example, which oils are best for high heat cooking? Which ones are best to use in marinades, sauces and dressings? Which oils should I avoid heating? I have to admit that before I started studying nutrition I was completely unaware of the fact that some oils shouldn't be used for cooking and that using and storing oils incorrectly can actually be harmful to your health.

Not to worry, I'll break down what types of oils are best for which application.

So here's all you need to know about oils and cooking.

The two most important considerations for oils are stability, which relates to shelf life and storage, and smoke point, which refers to the temperature when the fat starts to break down, thus changing the chemical composition of the oil and releasing harmful free radicals.

As detailed in my article "[Eat your Fats](#)", you know that fats and oils are broken down into 3 main categories – *Saturated*, *Unsaturated* (which is further broken down into monounsaturated fats and polyunsaturated fats), and *Trans* fats (I'm not even going to discuss trans-fat oils in this article as they are unhealthy and should not be consumed).

Generally speaking, the stability of the oil relates to the degree of saturation. Typically, the more saturated the oil, the more stable it is. The more stable the oil the longer the shelf life and usually there is less care required in storage in comparison to the more delicate oils (e.g. it doesn't have to be refrigerated, stored in dark containers, etc.) – there are always some exceptions though.

Unsaturated oils are generally more delicate than saturated oils and can be damaged by heat, light, and oxygen causing them to go rancid. Oils that go rancid may appear darker in colour and have a different odor or taste slightly off. Don't consume rancid oils! They contain health damaging free radicals and chemicals such as aldehydes and peroxides. To help reduce the likelihood of an oil going rancid, I recommend that you purchase your unsaturated oils in smaller quantities (unless you plan to use them fairly quickly) and look for ones bottled in dark containers to protect them from light. Proper storage for these oils is also important. They should

be stored in a cool, dry, dark place and the particularly delicate polyunsaturated oils like hemp seed oil, fish oils and flaxseed oil should be stored in the fridge and consumed quickly.

In addition to ensuring proper storage, it is also important to understand the smoke point of the oil as the smoke point dictates the most appropriate use for the oil. Oils that have a higher smoke point, like avocado oil, are more resistant to heat and suitable for high heat cooking like baking, grilling and stir frying. Heating oils to past their smoke point (when you start to see the oil smoke) is unhealthy and should be avoided. Some very delicate polyunsaturated oils such as flaxseed oil, pumpkin seed oil and hemp oil should not be heated at all or you will damage them. These are the type of oils you would want to use in dressings or as a finishing oil.

One interesting fact to note is that refining an oil increases its smoke point. Therefore, refined olive oil, for example, has a higher smoke point (230°C) than extra virgin or virgin olive oil (175°C – 205°C). While refined oils may have a higher smoke point than unrefined oils, I typically try to avoid refined oils as the process of refining involves chemical processes which remove many of the natural nutrients. Lastly, never reuse your oil for cooking as the smoke point is reduced each time it is reused. This last point makes me wonder if restaurants, particularly fast food chains, actually change their oil after they have used it. Fortunately I'm not a big fan of fast food!

So now that you have the basics, let's get to the specifics. Below I detail which specific oils are best for which application.

The oils most appropriate for **HIGH HEAT COOKING** such as grilling, baking or stir fry include:

1) Avocado Oil

This oil is a monounsaturated fat with a very high smoke point of over 290°C and it's full of heart health fats and vitamins D and E to boot! Given its high smoke point, you can use it for virtually anything. It also makes a nice tasting oil for a dressing too.

2) Ghee



Ghee is clarified butter commonly used in Indian dishes. It is a saturated fat and is highly stable with a long shelf life and a high smoke point. Don't be afraid of the fact that it's a saturated fat. Saturated fats are not bad for you provided they are consumed in the right proportion (refer to my article [“Eat your Fats”](#)).

3) Camelina Oil



This is an all-time favorite for me. It is somewhat of a “miracle” oil because it’s actually apolyunsaturated oil which is high in Omega 3 fatty acids that you can cook with at high heat (smoke point of 245°C) without degrading it. I know, this statement seems like a complete contradiction to what I said above with some of the polyunsaturated oils being unsuitable for cooking (honestly I’ve learned nothing is black and white when it comes to health and nutrition). So why is Camelina oil different? The difference with Camelina oil is that it has a very high vitamin E content which protects the oil from oxidation. The brand I use is called Three Farmers. I like that it’s locally produced in Canada and extracted from the seed without the use of chemicals.

4) Peanut Oil (unrefined)

This oil is a monounsaturated fat that has a smoke point of 225°C. It has a nutty flavour so it is suitable for use in Asian dishes. Use this oil sparingly as it is high in Omega 6 fatty acids, which in and of itself aren’t bad for you, rather we tend to over consume Omega 6 fats in the typical “Western” diet.

Note: there are several other oils that are suitable for high heat cooking such as canola oil and safflower oil as well as other refined oils, however, I didn’t list them here because some of them are sourced from genetically modified crops, such as corn and canola oil (here in North America where GMO is allowed), they are highly refined reducing its nutritional properties and subjecting it to a chemical process, or they have been reported to produce harmful free radicals when exposed to heat such as safflower oil (yes even though it has a high smoke point).

In addition to the oils stated above, the following oils are suitable for MEDIUM TO LOW HEAT cooking such as sautéing and baking:

1) Coconut Oil

Coconut oil is a saturated fat with a long shelf life. It has a lot of great health benefits and a smoke point of 175°C. If you are not familiar with coconut oil, be sure to check out my article “The Benefits of Coconut Oil”.

2) Olive Oil

This oil needs no introduction. It is commonly used in many countries around the world and comes in a variety of different grades. The most popular olive oils are the virgin olive oils which means that the oil was extracted from the olive using only mechanical processes. Extra virgin olive oil, has a smoke point of about 175°C. The smoke points for virgin olive oil and refined olive oil are slightly higher. Olive oil is suitable for low to medium heat cooking such as sautéing. It's also wonderful to enjoy on a salad as you can really appreciate the flavour. Because of the natural antioxidants it contains, it does not readily become rancid under long term storage. Nevertheless, I wouldn't recommend keeping olive oil for more than 12 months as the smoke point does reduce over time. Remember to purchase it in a dark bottle to further protect it.

3) Sesame Oil (unrefined)



A monounsaturated fat that is fairly stable. The unrefined variety has a smoke point of 175°C. This oil imparts a rich nutty flavour to foods. It's great in Asian dishes.

Lastly, these oils should NEVER BE SUBJECTED TO HEAT of any kind and are best used for dressings and finishing oils:

1) Hemp Seed Oil



I love the taste of hemp seed oil. It is a highly unsaturated fat and therefore needs to be stored in the fridge and protected from heat and light. This oil makes an awesome salad dressing mixed with apple cider vinegar, garlic and Dijon mustard. Yummy!

2) Flaxseed Oil

Flaxseed oil is full of heart healthy Omega 3 fatty acids and has a great nutty flavour. It is a polyunsaturated fat with a very low smoke point. This oil should never be heated. Save it for dressings and dips and be sure to store it in your fridge and don't store it for long periods of time. Flaxseed oil is also known as linseed oil.

3) Pumpkin Seed Oil

Pumpkin seed oil has a low smoke point of 100°C. If you have never used pumpkin seed oil before, it has an intense green colour, is thick and has a stronger taste and aroma. It basically

tastes like concentrated pumpkin seeds. Like all the oils in this category, it is best kept for drizzling over vegetables.

So as you can see oils are not created equally. You want to be sure that the next time you select an oil to cook with that you are using an oil that is appropriate for the temperature at which you are cooking. Also remember, if at any time, regardless of what oil you are using, you see smoke coming from your cooking vessel you should dispose of the oil and start again.

Before I conclude, I want to thank my cousin Giselle for providing the inspiration for this article. Thanks G!