

# Cooking Oils

Oils are an important part of every diet, and there are many types available. Let's see how some of them are made.

## A. Olive oil

There are six main steps to making olive oil.

### 1. Harvest

Olives are harvested between August and December. Green olives are harvested early in the season, and black olives later in the season.



### 2. Process

The olives are separated from leaves and branches, washed, and crushed by millstones or hammermills.

### 3. Malaxation

After the olives have been milled into a thick paste, water is added and the mixture is churned slowly.

### 4. Separation

After churning, the mixture is pressed or spun in a centrifuge. Both methods result in the separation of olive oil from the water and pulp.

### 5. Refine

The highest-quality olive oil produced from green olives harvested at their best time does not need refining. This unrefined product is called "virgin" or "extra virgin" olive oil. Lower-quality oil (harvested later) is refined using heat or chemicals. This process removes undesired flavours and the product is called "light" or "pure" olive oil.

### 6. Bottle

As soon as it's extracted, olive oil is quickly stored in stainless steel containers or poured directly into dark bottles to protect the oil from heat, oxygen, and light, which can degrade the quality of the oil.

Source: <https://freshestoliveoil.com/blogs/learn/how-is-olive-oil-made>

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## B. Avocado oil

When the fruit is ripe, it is harvested, washed, de-pitted and de-skinned.

Then the fruits are forced through a press.

A centrifuge process then forces oil and water from the pulp. Since the oil is less dense than the water, it floats on the water and is removed from strategically-placed holes in the centrifuge.

Avocado oil is thick and green.



Source: <https://californiaavocado.com/avocado101/how-avocado-oil-is-made/>

## C. Coconut oil

Firstly, the coconut is cracked open, and the white layer is removed (known as the “kernel”).

The kernel is then heated and dried, and it becomes what we call “copra”.

The copra is then passed through a press which forces the oil to leave the copra.

Finally, the oil is filtered. This produces “refined” coconut oil.

“Refined” coconut oil uses the heated and dried kernel (copra), while “unrefined” coconut oil uses fresh coconut kernel for extraction.

Because of this, unrefined oil has a much stronger coconut flavour, which is important when you decide which oil to use in recipes. Unrefined coconut oil is considered “raw” oil, because the extraction process doesn’t use heat.

Refined coconut oil can deal with higher temperatures before it starts to smoke. This makes it better for frying.



**Refined oil**



**Unrefined oil**

Source: <https://www.chowhound.com/food-news/214730/how-coconut-oil-is-made/>

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## D. Grapeseed oil

When grapes are pressed into juice to make wine, their seeds are either discarded, or processed into grapeseed oil. There are two ways of doing this:

1. The more efficient (and predominant) method uses a chemical solvent to get the most out of the seed’s meagre oil supply.
2. The other method, known as “cold pressing”, involves mechanically squeezing the oil out of the seeds. This produces a more expensive, and some say, a better-quality product, since there is no solvent residue.



Source: <https://www.masterclass.com/articles/what-is-grapeseed-oil-learn-how-to-cook-with-oil-made-from-grape-seeds#how-is-grapeseed-oil-made>

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## E. Sunflower oil

Similar to grapeseed oil, sunflower oil can be extracted using chemical solvents or cold pressing.



## F. Corn oil

In order to understand how corn oil is extracted, it helps to first understand how corn is processed, either to make food or ethanol. Corn is processed by “wet milling” to make food or “dry milling” to make ethanol.



### 1. Wet Milling

Wet milling is used to make food ingredients: sweeteners, starch, corn oil, and so on. It’s called “wet milling” because the corn is pre-soaked to soften the kernel. It’s then passed through a series of mills and centrifuges. These separate the germ, starch, fiber, and gluten proteins. These are then separately processed to create various food additives and other products:

- The fiber is pressed and dried to become animal feed;
- Some of the starch becomes cornstarch for baking, or is refined into sugar;
- Solvents are used to extract the corn oil;
- ... and so on.

The corn oil that comes out of the wet-milling process is called “crude corn oil” (CCO).

Wet milling is a very versatile process - it can be adjusted to produce many different co-products in different proportions. But it is also expensive and relatively slow.

### 2. Dry Milling

Dry milling is principally used to make ethanol, and also animal feed, and sometimes corn oil. Corn oil processed this way is called “distiller’s corn oil” (DCO), or “technical corn oil” (TCO).

In contrast to wet milling, dry milling starts with grinding the entire corn grain to a fine flour. This is then mixed with water and other ingredients to break it into starches and sugars. These are then fermented to create ethanol, which is then purified via distillation and dehydration. The remains are spun through a series of centrifuges to extract corn oil, and the remaining pulp is mixed with wastewater from previous steps, and then dried to become animal feed.

Dry milling is a more limited process, since it has only a few possible products, primarily animal feed, and ethanol. However, it is an extremely efficient process, producing large volumes of ethanol and animal feed.

Source: <https://www.trucent.com/how-is-corn-oil-extracted/>

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## Which are the best oils for cooking and/or nutrition?

Suggested article: <https://www.medicalnewstoday.com/articles/324844#vegetable-oil>