

OILS & FATS GUIDE

Oils and fats belong to the lipid family. Cooking oils are typically liquid at room temperature except for some oils that contain saturated fats, such as coconut and palm oils, that are solid at room temperature.

What is the role of fat in dough?

- ① Creates extensibility to the dough, creating a product with more volume. This happens because the fat creates a thin layer of fat substance between the molecules of the starches and proteins connecting all the dough components.
- ② Increases shelf life of a baked product.
- ③ Increases the nutritional value.
- ④ Helps the quality and moisture of a re-heated product.
- ⑤ Slow yeast activity.

Fats isolate yeast cells making water not available for the yeast to feed on. When making dough with fats, you will need to increase the amount of yeast you are using compared to a recipe without fats. That's why it's always good practice to add fats to the dough at the end of the mixing process.

The following table shows plant based and animal based oils and fats.

Plant Based Oils

- Olive
- Palm
- Soybean
- Canola
- Corn
- Peanut
- Vegetable Oils



Animal Based Oils

- Butter
- Lard (pork)
- Tallow (beef)
- Chicken Fat (schmalz)
- Cod Liver Oil
- Ghee (butterfat)
- Fish Oils



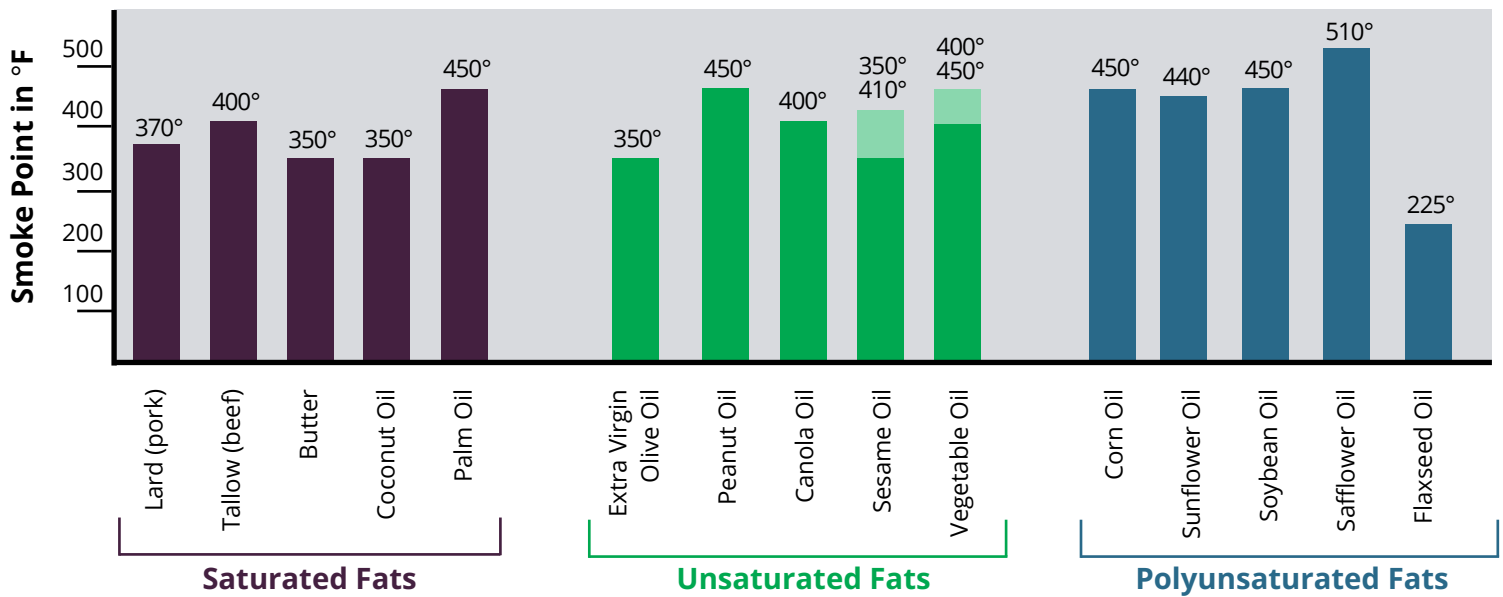
Fats can be saturated, non-saturated and polyunsaturated.

Unsaturated fats are healthier than saturated fats because they help lower cholesterol and improve heart health, whereas saturated fats can increase cholesterol. Polysaturated fats are fats that have more than one unsaturated carbon bond in the molecule.

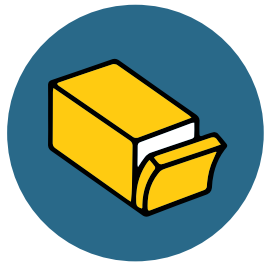
Both saturated and unsaturated fats can be part of a healthy diet, but it is important to consume them in moderation.

The table on the next page shows different saturated, unsaturated and polyunsaturated oils and fats. The table also shows the smoke point (s.p.). The smoke point is the temperature when the oils start smoking when subject to heating. Knowing the smoke point is important when choosing an oil or fat for a specific application as you want to avoid consuming the oil at its smoke point. When oil begins to smoke, it will impart a burnt, bitter flavor.

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We will focus on a few key fats and oils and help you know what the best application for each is:



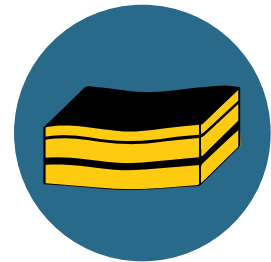
Butter

Best used in croissants, puff pastries, cookies, cakes and breads as butter will impart a flakiness.



Olive Oil

Extracted from the fruit of the olive tree, olive oil is best for pizza and bread dough making. It will impart good color and flavor and will improve the texture and color of the finished product.



Lard

Also known as pork fat, lard is best used in frying applications, doughs or pie crusts because it creates a flakiness and has a high smoke point. Lard provides flavor, tenderizes and adds color.



Canola Oil

Obtained from the brassica napus and brassica rapa seeds. Best used in cakes, breads, cookies and muffins. This oil is considered one of the best vegetable oils due to its nutritional value. Canola oil is used as a moistener and tenderizer.



Soybean Oil

Extracted from soybeans, has a clean natural taste and enhances natural flavors. Mixes well with other fats and oils and it also works well as emulsifying agent.