

strike oil!

OK, so you probably don't stop to consider your cooking oil very often. But there's a surprising amount to learn about this liquid gold. BY VIRGINIA WILLIS

Olive oil jars left behind by the ancient Greeks are testament to our centuries-old use of cooking oil. Along with salt and pepper, oil remains one of the most important and versatile tools in your kitchen.

It keeps food from sticking to pans, adds flavor and moisture, and conducts the heat that turns a humble stick of potato into a glorious french fry. Like butter and other fats, cooking oil also acts as a powerful solvent, unleashing fat-soluble nutrients and flavor compounds in everything from tomatoes and onions to spices and herbs. It's why so many recipes begin with heating garlic in oil rather than, say, simmering it in water.

The ancient Greeks didn't tap many cooking oils. (Let's see: olive oil, olive oil, or—ooh, this is exciting!—how about olive oil?) But you certainly can. From canola to safflower to grapeseed to walnut, each oil has its own unique flavor (or lack thereof), aroma, and optimal cooking temperature. Choosing the right kind for the task at hand can save you money, boost your health, and improve your cooking.

What's this? Pumpkin seed oil suspended in corn oil—it looks like a homemade Lava Lamp!

WHERE TO store YOUR OIL

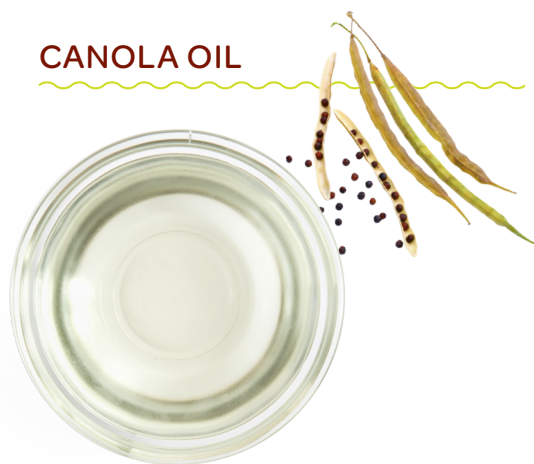
Though it's tempting to store cooking oils in clear bottles above or near your stove, that's really not the best plan. Heat and light can damage oils, so you want to keep them in the cupboard in the coolest part of your kitchen or even in your refrigerator to avoid spoilage.

Now, if you cook a lot and you've just got to have a bottle near the stove, make it a dark container (think green glass or stainless steel) and a small one that you will empty quickly. And store it to the side of the stove rather than above it because, of course, heat rises.

Unrefined oils—especially those made from nuts—can go rancid in a hurry, so buy them in small quantities and keep them in the fridge. When oil goes bad, you'll know it: It smells sour, tastes bitter, and, unfortunately, can't be saved. Toss it out.

Some oils become cloudy or even solidify when refrigerated. That doesn't affect their quality at all. Give them a few minutes at room temperature, and things will be back to normal.

CANOLA OIL



Canola oil comes from the seeds of the canola plant—a genetic variation of rapeseed, a member of the same plant family that includes cabbage, mustard, and broccoli. (Rapeseed oil has long been used as an industrial oil; canola was developed in Canada using traditional plant-breeding methods to make the rapeseed less acidic and more edible. The word “canola” is an amalgamation of “Canadian oil, low acid.”) Almost clear in color, neutral in taste, and with a high smoke point, canola oil is a good all-purpose oil—excellent for sautéing, deep-frying, and baking as well as using raw in salad dressings and mayonnaise. Most canola in the United States is genetically engineered and chemically extracted, so if that's a concern for you, you may want to spend a little more on organic, expeller-pressed canola oil, which is mechanically extracted from non-GMO seeds.

CORN OIL

Corn oil is extracted from the germ of corn kernels. Refined corn oil, widely available in grocery stores, is pale gold in color and works well as an all-purpose cooking oil. It has a high smoke point and is inexpensive. It can be used for frying, baking, and roasting—and, since it is fairly flavorless, it's also good for making dishes in which you want the flavor of the food, rather than the oil, to shine. Unrefined corn oil, which is much rarer in stores, is dark gold in color and has a rich corn taste. It's best in no-heat applications such as salad dressings and recipes that benefit from a strong corn flavor.



GRAPESEED OIL

It's made from—you guessed it!—the crushed seeds of grapes. Nearly clear or pale green in color, grapeseed oil is a favorite in professional kitchens because it has both a high smoke point and a light, neutral flavor. Research also suggests that grapeseed oil, like the grapes it comes from, contains powerful antioxidants that help protect against molecules called free radicals that are implicated in heart disease, cancer, and other ailments. Grapeseed oil, especially the expeller-pressed kind, can be a bit more costly than other oils. It takes a lot of those little seeds, after all, to make it!



OLIVE OIL

A cornerstone of Mediterranean cooking long recognized as heart-healthy, olive oil is available in seemingly endless varieties. The flavor and aroma of each depends largely upon the olives from which it was pressed. Just as there are different kinds of grapes for wine, there are different kinds of olives grown all over the world. An oil pressed from Spanish Arbequina olives will taste different than one from Italian Coratina olives. Which kind you prefer is a matter of personal taste and what you're cooking: Bold ingredients like red meats, tomatoes, and hearty grains can handle more intense flavors; delicate foods like seafood and vegetables are often better served with a more subtle, fruity oil. It's smart to have at least two types on hand: one “extra virgin” for salads and finishing touches, and one “pure” or regular for cooking. Extra virgin olive oil, which is typically more expensive, has a low smoke point and a robust flavor that's lost with



high-heat sautéing or frying. Extra virgin olive oil prices vary considerably, so it's smart to sample a little before you buy a lot of any one kind. Pure olive oil—slightly more refined, slightly less expensive, and with a higher smoke point—is better for sautéing and medium-heat cooking.

PEANUT & OTHER NUTTY OILS

If you've had a deep-fried turkey at Thanksgiving, it was probably fried in refined peanut oil. A favorite in Southern cooking, it has a high smoke point and is perfect for deep-frying—one reason you'll often find it in 1- to 5-gallon jugs at big-box stores or near the outdoor deep-fryers in hardware stores. Smaller bottles are available as well and are great for sautés and stir-fries. The vast majority of peanut oil used by U.S. cooks is heavily processed and highly refined. That's why, surprisingly, most peanut oil is actually allergen-free. The purification, deodorization, and bleaching of the refining process remove components in the oil that can trigger reactions in people with peanut allergies. Other nutty oils, such as hazelnut, macadamia, pistachio, pumpkin seed, and walnut oil, are more commonly sold in their unrefined states and so



are more likely to exhibit the characteristic flavor and aroma of their base nut or seed. (Unrefined peanut oil is sold as well. When you open the bottle, it smells like peanut butter!) These unrefined oils can be expensive and are not ideal for heated preparations, as they generally have low smoke points and lose their distinctive flavors fairly quickly when cooked. But they're delicious as finishing drizzles, in dressings, and in salads. They also can be added to more all-purpose cooking oils to add nutty flavor.

SAFFLOWER & SUNFLOWER-SEED OILS



Safflower oil and its cousin, sunflower-seed oil, are used in cuisines all over the world. Derived from related flowers, they contain high amounts of vitamin E and are very versatile. Safflower oil is especially good for cold salads because it doesn't solidify when refrigerated and chilled. Both can be used in cold dressings and mayonnaise as well as in high-heat cooking and sautéing. Nearly clear in color, they're also neutral enough for baking. These oils are low in saturated fat and are generally more expensive than generic “vegetable” oil but less expensive than extra virgin olive oil.



what kinds of fats are you COOKING WITH?

Fat makes food taste good, and our bodies are hard-wired to like it. But most of us eat too much fat—and too much of the least healthy types. It helps to know which is which.

Unsaturated fats—found mainly in fish, nuts, and seeds, and in oils made from vegetables, nuts, and seeds—may help lower your cholesterol level when you use them in place of saturated and trans fats. They're the ones you want to eat most.

Saturated fats are found mainly in ingredients that come from animals but also in tropical ingredients such as coconut, coconut oil, palm oil, palm kernel oil, and cocoa butter. Too much saturated fat is believed to raise cholesterol, so it's best eaten in moderation.

Trans fats or trans fatty acids are found mainly in solid-at-room-temperature, hydrogenated oils such as margarine and shortening, and processed foods. Many experts consider these the worst fats because they not only elevate the “bad” kind of cholesterol (LDL) but also lower the “good” kind (HDL). Some meats and dairy products also contain trans fats, but some science indicates that such naturally occurring trans fats aren't as harmful as those in processed foods.

a few words about
SOLID FATS

Cooking oils are fats that are liquid at room temperature. But there are also many solid fats that liquefy when heated. In general, solid fats contain more saturated fat and trans fat than oils do. Key types used in cooking are:

Animal Fats
Fats that come from animals tend to be rich, savory, and...meaty! **Lard** and **bacon drippings** are fat rendered from pork. **Schmaltz** is rendered fat from chicken. **Duck fat** is, well, duck fat. **Suet** is fat from beef or mutton, and once it is rendered it's called **tallow**. (Rendering is a process of cooking that melts the fat and makes it fairly shelf-stable.) Lard was the premier fat of days gone by, and biscuits and pie crusts made with lard are old-fashioned Southern classics. Potatoes fried in duck fat are simply otherworldly. And the secret to many a Jewish grandmother's light-as-air matzo balls is schmaltz. Key uses include frying and sautéing.



Butter
Classic French cooking treats butter—the good stuff that separates from the liquid and solidifies when you churn cream—as a food group. It lends a smooth and creamy taste to foods and is silky on the tongue. And wonderful things happen when the milk solids in butter begin to brown.

Butter can be used in medium-temperature sautéing, sauce making, and, perhaps most famously, in baking. **Clarified butter**, also known as **ghee**, is butter that has been heated and had the milk solids removed. That gives it a higher smoke point, which means you can cook it at a higher temperature than regular butter without burning it.

Coconut Oil
It's super high in saturated fat and was once considered a big health no-no, but now it's making a comeback. Proponents of coconut oil praise it as a skin moisturizer, a dietary supplement, and a cooking oil. Since coconut oil is a solid fat at room temperature, it can be substituted for butter in more durable and dense baked goods like muffins, banana bread, and cookies. (Cakes can be tricky.) It retains a light coconut taste, so it should be either used in savory recipes that benefit from that unique flavor or cut with less-strongly flavored fats.

Margarine and Shortening
Old-timey recipes will call for **oleo** (short for oleomargarine, as **margarine** was once called). Margarine is a butter substitute made from vegetable oils or animal fats (such as beef tallow) mixed with water, emulsifiers, flavoring, coloring, and other ingredients to make it more solid and butter-like with less saturated fat (and a lower cost) than cream-based butter. **Shortening** is a lard substitute. Originally, the term was used to refer to the lard, butter, or other solid fat you'd use in a dough

or cake mixture to make the mixture "short"—with a high proportion of fat to flour, as in shortbread. Shortening has now come to mean a shelf-stable, solid-at-room-temperature product made from vegetable and fruit oils, sometimes colored and flavored—and ultimately not all that different from margarine.



SESAME OIL

Dark or toasted sesame oil, which varies from pale golden to rich brown in color, is made from toasted sesame seeds and has a pronounced roasted, nutty flavor. It is unrefined, and toasting the seeds lowers the smoke point. That means it's best used for seasoning rather than for cooking, and a little goes a long way. Light sesame oil ("light" refers to the color, not the calorie or fat content) is made with untoasted seeds and may be refined or unrefined. It is sold in health food or Middle Eastern stores. It's more suitable for cooking than dark sesame oil.

SOYBEAN/VEGETABLE OIL



My grandmother used to have a small bottle of "salad oil" in her cupboard. You don't see that term thrown around much these days. Instead, we have "vegetable oil," which is similarly vague and equally as prevalent on recipe ingredient lists. It's a bit tricky because it's a catchall term meaning any of the vegetable-derived oils (from corn and canola to soybean)—but oil that's actually labeled "vegetable oil" typically is inexpensive, highly refined soybean oil, sometimes with a few other plant-based oils blended in. Major advantages: It's widely available, fairly neutral in taste and in color, and less expensive than most other oils. You can use it in baking and cake recipes and as a general cooking oil.

Why Smoke Points Matter

A cooking oil's smoke point is just what it sounds like: **the temperature at which the oil will start to smoke**—just before it completely degrades and catches fire! When oil gets too hot, bad things happen. It loses its nutritive value. It turns dark in color, starts to smell like bug spray, and tastes pretty bad, too. If you see wisps of smoke coming from the oil in your skillet, it's time to take it off the heat, toss it out, and start with fresh oil. And it's always wise to choose an oil with a smoke point high enough for the heat level you're using. Smoke points vary by oil type and often by manufacturer, but they're not always listed on the bottle. The chart at right offers a rough guide. **Bottom line:** The higher the smoke point, the better the oil is for frying and high-heat cooking. The lower the smoke point, the less refined the oil is, the more delicate its flavors are, and the better suited it is for low- and no-heat uses—as a drizzle on bruschetta, say, or the base of a vinaigrette.

OIL TYPE	SMOKE POINT (approximate)	CULINARY USES	GOOD FOR
CANOLA SOYBEAN/ VEGETABLE, REFINED PEANUT, REFINED CORN, AND SAFFLOWER GRAPESEED AND REFINED SESAME SUNFLOWER-SEED	460°F 450°F 445°F 410°F	Frying, roasting, grilling, sautéing, all-purpose cooking	High heat
PURE OLIVE AND UNREFINED CORN	320°F to 410°F	General cooking, light sautéing	Medium heat
EXTRA VIRGIN OLIVE; UNREFINED PEANUT, PUMPKIN SEED, SESAME, AND WALNUT	Ranges widely (200°F to 365°F or more)	Drizzles, dressings, sauces, combining with other oils	Low or no heat



Oil Terms Demystified

To understand the labels you see on cooking oils, it helps to know how the oil gets out of olives, seeds, nuts, and vegetables and into those bottles. Common extraction methods include pressing the oil-rich ingredient between two hard surfaces; heating a previously pressed ingredient and squeezing it some more; passing the ingredient through a spiral press that forces the oil out; or grinding the ingredient and applying a chemical solvent to separate the oil from the ground-up bits. Oils may be further refined by heating, filtering, bleaching, and deacidifying.

COLD-PRESSED means the oil was extracted from its base ingredient (olives, usually) without externally supplied heat. Almost all early pressings are cold-pressed. **FIRST-PRESSED** suggests the oil comes from the initial squeeze. **EXTRA VIRGIN**, a phrase applied most often to olive oil, means both cold- and first-pressed. Though the term undoubtedly has been applied to some less-than-virgin oils, it's supposed to mean that the oil comes from virgin olives—pressed (without heat) for the very first time. Extra virgin olive oil may be cloudy or have a green hue due to tiny olive particles that are released

along with the oil in the initial pressing. Those particles carry intense flavor, but they also can burn, one reason extra virgin olive oils (EVOOs) and other minimally processed oils often have a low smoke point. **PURE** refers to olive oil that's made after the first pressing. Olives are expensive, after all, so the mash left over from the cold pressing is heated and then pressed some more to extract more oil. It's slightly more refined, so there are fewer particles in the oil, and it has a slightly higher smoke point. **LIGHT** usually refers to pure olive oil that has been refined

further, not to be lower in calories, but to be lighter in color, aroma, and flavor, and better for high-heat cooking. **EXPELLER-PRESSED** refers to oil that's been extracted (usually from seeds) by the extreme pressure, friction, and heat created when they are passed through a spiral press known as an expeller. This method is a mechanical alternative and often a precursor to **CHEMICAL EXTRACTION** with hexane or other solvents, the process that's used for many less-expensive oils. Expeller-pressed oils are typically labeled as such and are more expensive.

Chemically extracted oils usually are not labeled as such, and they tend to be less expensive. Oils on store shelves run the gamut from **UNREFINED** to **REFINED**. Cold-pressed and expeller-pressed are the least refined of all oils; they're loaded with tiny particles that result in a lower smoke point as well as intense flavor. Such unrefined oils usually are best for low- or no-heat cooking. Refining oil is the process of filtering out those tiny particles. It results in a higher smoke point as well as some loss of flavor. Refined oils keep longer and are better for high-heat cooking.