

Cast Iron Seasoning

(The following information was taken from Wikipedia.org
[http://en.wikipedia.org/wiki/Seasoning_%28cast_iron%29])



Cast iron skillets, before seasoning (left) and after several years of use (right).

Seasoning is a process by which a layer of animal fat or vegetable oil is applied and cooked onto cast iron or carbon steel cookware. The seasoning layer protects the cookware from rusting, provides a non-stick surface for cooking, and prevents food from interacting with the iron of the pan. Almost all cast iron cookware is seasoned. Well-seasoned cast iron cookware will have a very smooth black surface.

Fats and oils typically used for seasoning include lard, hydrogenated cooking oils such as Crisco, and palm or coconut oil (in general, oils that are high in saturated fats, and therefore typically solid at room temperature).

Oils that are polyunsaturated (and therefore typically liquid at room temperature) will get rancid much more quickly, and are usually not recommended. Liquid oils may become gummy over time, and extremely difficult to remove. Food cooked on gummy oil may also have an unpleasant taste.

Cleaning before seasoning

If it is not pre-seasoned, new cast iron is often shipped with a coating to prevent rust. This coating is typically food-grade wax or mineral oil. **The coating must be removed before the pan is seasoned or used.** To remove the protective coating, cast iron can be thoroughly scrubbed using light dish soap and nylon bristle brush. Some cooks will also rub the surface of the pan with kosher salt to smooth it. Then rinse with hot water and pat dry.

Seasoning techniques

Once cleaned, cookware can then be seasoned. There are several techniques for seasoning cast iron - these vary based on the smoke point of the oil or fat used.

Technique 1

- Simply wipe the cleaned cast iron with a good oil or fat and use it for frying and roasting, particularly high fat foods, like bacon. The oil or fat will impregnate the cast iron and gradually convert into a seasoning over time. Rendering animal fat in a new pan will have the same effect.

Technique 2

- First, heat the cookware until water quickly boils when splashed onto its surface.
- Next, using a rag, wipe a thin coat of lard or oil onto the surface of the cookware.
- Finally, place the cookware upside-down in a moderately hot oven for 1-2 hours. It is a good idea to place a layer of aluminum foil under the cookware to catch drips of excess oil.
- Let the pan cool in the oven. At this point, the cookware should have a black sheen and be ready for cooking.

A new cast iron pan will not be 100% seasoned after a single treatment. It takes repeated use for the pan to develop a seasoned, non-stick surface.

If too much oil or shortening is applied to a pan in the seasoning process, it will pool and gum up when the pan is heated. In this case, the goo can be scraped off and some more grease rubbed over the spot, or the pan can be re-scrubbed and reseasoned. Heating the pan upside-down may help prevent gumming, but will be more likely to drip grease into your oven unless protected by a foiled-lined baking sheet. Seasoning at higher temperatures approaching the smoking point of the oil used will result in darker seasoned coatings in less time that aren't sticky or gummy.

Care and cleaning after seasoning

Frying in a cast iron pan will help maintain the seasoning, as will roasting fatty meats or other greasy foods. Prolonged contact with wet or acidic foods, such as tomatoes, can dissolve or damage the finish.

It is a common misconception that one should never use dish soap to clean seasoned cast iron cookware, since this will immediately remove the oil, and 'unseason' the pan (or even, according to some cooks, leave soap residue that will poison the food). In fact, a very well-seasoned pan can tolerate dilute dish soap, and, for infrequently used pans, this may be preferable to leaving rancid grease on the cooking surface. In general, however, regular washing with soap is not recommended. When cast iron cookware is washed with soap it should be lightly oiled before it is used or stored away.

There are several methods for cleaning seasoned bare cast iron cookware:

- Scrub the inside of a warmed pan with a tablespoon of a coarse salt, such as kosher salt, add a small amount of olive oil, and rub with a small piece of an old cotton cloth. Rinse with cold water.
- Scrub the pan with boiling or near-boiling water and a stiff nylon or fiber brush.
- Use veggie wash (milder than soap) and a stiff nylon or fiber brush.
- Boil a solution of cornstarch or rice starch and water in the pan, tilting the pan to make sure the boiling liquid touches all the way up the sides. Then pour out the resulting grease-water-starch solution, and peel off whatever dries onto the sides of the pan. Rinse the pan in hot water.

In all cases, the cookware should be dried thoroughly after washing, and oiled lightly if not already very well seasoned.

For deep cleaning (before re-seasoning), some cast iron collectors also advocate removing baked-on grease by soaking cast iron in a lye solution, or heating the pan in a self-cleaning oven or campfire. Both of these methods have inherent drawbacks, however. Lye can cause serious injury (including blindness) if handled improperly, and unevenly heating a cast iron pan may warp or crack the pan. A safer solution is to place the iron cookware into a large pot of boiling water, adding a cup or two of baking soda, and boil for ten minutes.

Here are a few ways to remove rust; soak the item in a 1:1 solution of vinegar and water, soak the item in Coca Cola, or soaking the item in a strong brew of tea (4-5 tea bags per liter) and soak overnight (Earl Grey or traditional strong Yorkshire Brew I hear works great), or even sandblasting, emery cloth or wire-stripping the pan.