

Troop 113's Cast Iron College

(generously lifted from cookingonthetrail.wordpress.com)

What is a Dutch oven?

Think of a heavy cast iron stock pot with a cast iron lid and you're pretty close to what it looks like.

Q. Why do some have legs, others none and some have lids with raised rims on them and others not?

A. That's because there are 'indoor' or flat surface and outdoor Dutch ovens.

Q. How does a Dutch oven work?

A. Think of your oven at home. It is a self-contained total surround cooking area. A Dutch oven works in a similar fashion. Being able to have its bottom, sides and top radiating heat from all places at once, the food inside is cooked from all directions in an equal temperature. Thus, the reason it is called an oven.



Note the legs, lid dimples, raised lid rim to hold hot coals and the handle on this outdoor Dutch oven.

Legs are handy if you're cooking outdoors on an open fire. Hot coals can be bunched up underneath and having three stubby legs gives it a pretty solid stance on a not so level surface. Outdoor style Dutch ovens usually have a lid with a raised lip on it. That one-inch lip allows you to place hot coals on its lid without the coals falling back into the fire or the insides when you lift the lid to check on the food inside. The coals underneath and on those placed on its top is why the Dutch oven is called an oven and not a pot. It is one of the few true baking tools that doesn't need an oven.

An outdoor oven should not be used indoors. The legs will prevent the bottom from being heated if you have it on top of an electric stove. On a gas stove, the burner grate will get in the way of the legs and it can tip causing spills.



Typical flat bottomed indoor Dutch oven with rounded lid. Note the handles are made to accept a hanger.

The indoor or flat surface Dutch ovens have no legs. This style can also be used as an outdoor oven if you're careful in placing it on the coals. Many indoor and outdoor Dutch ovens have tabs on the rim, so the oven can be hung over an open fire using a tripod stand. Since an indoor Dutch oven can be placed within a gas or an electric stoves oven, there is no need for a lid with a raised lid to hold hot coals.



Gloves.

Many folks go and buy leather work gloves. I never recommend leather for this reason alone. Once leather gets heated to a certain point, it transfers that scalding heat quickly to your skin. Kevlar or high heat resistant cooking gloves are what you need. As of this printing, they sell for \$20-\$25 on Amazon. Another thing you'll need is a lid lifter. Sitting on coals or over an open fire, the oven lid gets super-heated and should never be lifted bare-handed. Also, a lid lifter will avoid your dumping ash and coals into your food.

Things to know about cast iron cooking and care.

Quality.

Scaling is NOT normal. A properly cast and finished Dutch oven will not scale if pre-seasoned correctly. Look for how well ground out the mold marks are. See if the lid fits snugly and look for thin spots on the rim.

Pre-seasoning.

Cast iron is the original nonstick cookware. Once it is seasoned, nothing sticks to it. Follow the manufacturer's directions if purchased new. Many are now being sold as "pre-seasoned", that's all fine and good for the first time cooking, but continue to season the pan as if it were not pre-seasoned. To season; Wash pan in mild dish detergent and dry completely.

Pre-heat your oven to 225 degrees. Use lard, shortening or the least desired vegetable oil to lightly coat the entire pot, inside and out.

Place the Dutch oven back into the heated oven for 15 minutes. After 15 minutes, increase the oven temp to 500 degrees and bake for 45 minutes. Remove when finished and allow it to cool. When cool, the pot should not be sticky, if it is then either too much oil was used or time and temp were too low. Reheating at 500 degrees for another ½ hour should solve the problem. If the pot is an antique or rusty, clean it very well, even using steel wool and a mild detergent, then season twice in a row.

Cleaning.

Never, ever, place cast iron in the dishwasher to be cleaned. Only a mild quick cleaning followed by an immediate drying is ever needed. I know of many cooks that simply wipe out the pot with a damp towel then returned to the fire for 1 minute to dry. Re-season by simply wiping a fine layer oil on it. If heavy cleaning is needed, then you should re-season it using the oven method. The secret to forming the nonstick surface is to allow a buildup on the interior of the pot or pan. By wiping with a damp towel and drying it afterward using heat, will begin the buildup. Some of my frying pans, to my best judgment, have never had anything done to them but a good wiping out. I said before, some of my cast iron cookware is over 100 years old! If scrubbing is needed, use a mild detergent and a nylon scrub brush, never Brillo type pads. If you cook outdoors, you can simply heat the pan until the stuck residue burns into a char. Then just wipe out the char using the damp towel again. Cast iron can crack or warp so never place a hot pot or pan in cold water, let it cool first.

Cooking tips.

Before using, wipe a teaspoon of oil into the pan before pre-heating. Then pre-heat to warm it up before placing food in them. Never place frozen or very chilled food into cast iron, doing so will cause the food to stick and burn. Soups and watery foods do not require a preheated pot but still wipe a bit of oil in them first. A fellow cast iron aficionado has a web site that explains it better than I can, so I went ahead and copied his method to explain all this to you.

Temperature

How to get the right temperature to cook with. “On the kitchen oven is a really cool dial. I turn it to 350 and trust that the oven will heat up to and remain at 350 degrees. I put in the food, set the timer, and go do something productive. When camp cooking in the outdoors it’s a bit more hit-or-miss.

On my Dutch oven, there’s no dial, nothing to tell me how hot the oven is. Since cooking food at a fairly consistent and known temperature is important for success, there are 3 ways I know of for estimating the temperature. Depending on your skill level and how you’ll be cooking, one of them should work for you. Also keep in mind that there are many environmental factors that will influence your oven temperature. Wind might blow heat away; colder air temperature, higher humidity and higher elevation reduce heat generated by coals; direct sunlight makes a black oven a bit hotter. You might consider making an aluminum foil wind shield to place around your oven, but if it is that windy, I would recommend you not have an open fire.”

Nearly all Dutch oven cooking will come out ok if your Dutch oven is about 350 degrees. Some things should be cooked hotter and some cooler, but that’s the temperature for all recipes that fail to include a temperature suggestion.

Hand test

Use your hand to feel the heat. Of course, every person has a different sensitivity to heat but this works well for me. Just remove the lid from the Dutch oven and place your hand just above or just inside the oven. Count how many seconds you can keep your hand there before it gets too hot. It is about 50 degrees per second counting down from 550, so I just count – “550, and 500, and 450, and 400, and 350, and 300, ...”.

Seconds	Temperature
1	500+
2	500
3	450
4	400
5	350
6	300
7	250
8	200

“This is my preferred method. It is consistent and detects temperature instead of estimating the amount of fuel. You do release heat, so you need to do the check as quickly as you can.”

Counting Charcoal

Lots of Dutch oven cookbooks tell you how many charcoal briquettes to put under and on top of the oven. This is the easiest way to cook since every coal is similar and consistent. If you are like me and use real wood for your outdoor camp cooking coals, it doesn't help much. Also, different brands of charcoal give off different amounts of heat. But, let's say you are going to use charcoal...

The normal formula is to use twice the number of briquettes as the diameter of the oven. For a 12-inch oven, you would use 24 briquettes. Depending on the type of cooking you are doing, you need to make the heat come more from the top or bottom of the oven. For example, too much heat on the bottom will burn bread. To avoid this, you place more briquettes on the lid.

Here is a simple chart:

Baking	Most heat from top so bottom does not burn. Place 3/4 coals on top and 1/4 underneath.
Roasting	Heat comes equally from the top and bottom. Place 1/2 coals on top and 1/2 underneath.
Stewing, Simmering	Most heat is from bottom. Place 1/4 coals on top and 3/4 underneath.
Frying, Boiling	All heat comes from bottom. Place all coals underneath.

Compiled and edited by Jimi Mello and John Albertson - Polar Bear Camporee, January 2018