



ROOKHUIS SMOKERS

Rook Huis Smokers Guide

What Is Smoking?

Smoking is a process of exposing food to smoke to preserve, brown, and/or add flavour. It's one of the oldest cooking techniques, likely developed right after cooking with fire. Smoking is accomplished by hanging meat or placing it on racks inside a chamber that traps the smoke, created by a hardwood fire.

Two Different Types of Smoking

There are two main types of smoking:

1. Cold smoking, in which meats are exposed to low-temperature smoke (about 60-120°F) away from the heat source, for purposes of preservation and flavour. Cold-smoking does not cook meats, so they're often cured first, such as with smoked salmon.
2. Hot smoking (aka barbecue), in contrast, involves exposing meats to smoke that's hot enough to slowly cook them through (about 200–300°F). In hot smoking, you're adding flavour to meat in two ways: by imparting smoky flavour compounds onto the surface of the meat, and through slow-cooking, which can make certain cuts incredibly tender.

Why Smoke Food?

There are two main reasons to smoke food.

- To preserve it: Smoke has been used for thousands of years to preserve food, both through drying and the chemicals found in the smoke. Formaldehyde and certain alcohols present in wood smoke act as natural preservatives, and other chemicals in smoke can kill microbes and slow fat oxidation.
- To add flavour: Nowadays smoking isn't necessary for food preservation, so it's mostly done for flavour. When burned, wood breaks down into compounds that smell and taste like caramel, vanilla, and other spices. Smoking also helps coat the outside of meat in "bark," a dark, thick crust that forms when smoke reacts with the moisture on the surface of the meat. Because cooking via smoke takes so much longer than cooking by direct heat, such as grilling or pan-frying, it can turn tough cuts tender.

How Is Smoking different from other cooking techniques?

Smoking as a cooking method relies on low, indirect heat. Unlike direct, dry-heat methods, such as grilling or frying, food that is smoked is positioned farther away from the heat source, and unlike wet heat methods, such as braising, smoked food is not submerged in liquid.



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6 Pieces of Equipment You Need for Smoking

There are many different ways to smoke, but the ideal setup has two separate chambers: one where the wood is burned, and another for the food. This ensures that the food is actually being cooked by the low-temperature (about 200°F) smoke, and not by any direct radiation. To smoke, you'll need:

1. **A smoker:** Smokers can also be categorized according to how they generate heat. The best, most authentic central Texas barbecue is cooked on smokers that generate both their smoke and their heat exclusively from burning wood. That's not to say you can't make great food on a smoker that runs on charcoal or gas. There are tons of different kinds of smokers, including electric smokers, drum smokers, wood pellet smokers, water smoker, charcoal smokers, and wood-burning offset smokers.
2. **Wood:** Different types of smokers require different types of wood. For grill smoking, you'll need wood chips, whereas wood chunks are best for kettle grills. Research what type of wood is best for your smoker, and always use hardwood. Thermometers: Use thermometers to determine both the temperature of the smoke, and the internal temperature of the meat.
3. **Smoke box:** For gas or charcoal grilling, you'll need a smoke box or ventilated aluminium-foil packet for the wood.
4. **Water pan:** Put a water pan (filled with a few inches of warm water) inside your smoker to add humidity to the cook chamber and keep the surface of the meat moist and tacky, allowing the smoke to stick better. Adding warm water to a container inside the cook chamber adds moisture and humidity to the environment, which can help keep the meat from drying out. A disposable aluminum pan is all you need.
5. **Spray bottle:** During the course of each cook, you'll also need to spritz the exterior of the meat from time to time to prevent certain parts from drying out and overcooking. For this, you'll want a spray bottle with an adjustable nozzle. Go with a setting that splits the difference between mist and stream. If it's too misty the liquid will evaporate almost instantly, but if it's too forceful the stream could break up your bark.
6. **Drip Pans:** Over the course of a long cook, your meat is going to drip grease and rendered fat into the bottom of your cook chamber. It's messy and can turn rancid if it isn't dealt with. It's also a fire hazard. Some smokers come equipped with a drain or drip pan already installed, but if not, you can add a large, shallow pan beneath the grate of your smoker. Even a disposable aluminium pan will do in a pinch.

4 Stages of Burning Wood

Wood produces its best, cleanest smoke after it fully combusts and catches flame at temperatures in excess of 600°F. On your way to clean smoke, you'll be burning off moisture, gases, and oil-soluble chemicals in the wood, eventually reaching the optimum stage where most of your smoke is water vapor. As that vapor moves through the smoker, it settles on the surface of the meat and then evaporates, leaving behind traces of compounds like syringol and guaiacol, which give barbecue its flavour and aroma. The four stages of burning wood are:



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1. Dehydration: At around 500°F, any water in or on the wood will evaporate, so that it can burn.
2. Gasification and pyrolysis: Between 500°F and 700°F, combustion begins and the compounds in wood begin to break down into tar, liquid, and gas.
3. Burning bush: Between 700°F and 1,000°F, flames appear, and combustion produces carbon dioxide, heat, water vapor, and ashes. This is the stage at which the aromatic compounds essential to smoking are produced.
4. Char burning: This is the stage at which the only combustible material left is the carbon in charcoal. The charcoal burns with little to no flame and smoke.

What Kind of Meat Is Best for Smoking?

Since smoking is such a slow cooking method, it's ideal for tougher cuts of meat with lots of fat and connective tissue in the form of collagen, such as beef brisket. The fat keeps the meat from drying out during the long smoking process, while the collagen melts into tender gelatine. More marbling means more fat distributed through the muscle, which is exactly what you want for barbecue. Fat helps with flavour and moisture, and absorbs smoke flavour well. Other good choices include pork butt or pork shoulder, used for pulled pork; or fatty pork ribs or beef spare ribs. Stay away from tender cuts, which will dry out with prolonged cooking.

- **Pork butt:** Pork butt, also known as Boston butt, is a cut from the upper portion of a pig's front shoulder. It's a relatively inexpensive and forgiving hunk of meat that you'll most often see served as pulled pork in barbecue restaurants. The muscle has a lot of connective tissue that needs to be broken down through slow cooking, but it's also extremely fatty, so it's less prone to drying out, even at higher temperatures. The relatively forgiving nature of the cut and consistent cooking temperature make this a great cook for beginners or anyone who wants to practice their fire-maintenance skills.
- **Spare ribs:** Cooking spare ribs falls between pork butt and brisket in terms of difficulty. They spend the least amount of time in the smoker and will cook at a consistent temperature throughout. However, because they're a comparatively thin cut of meat, there isn't as much margin for error. Spare ribs also need a certain amount of trimming during prep—more than pork butt, but not as much as brisket.
- **Brisket:** Brisket is one of the eight main (or primal) cuts of beef. It is comprised of two pectoral muscles that start under the chuck and extend towards the place, until the fifth rib. Like the chuck and shank, brisket is composed of muscles that a steer uses frequently. Over the course of a 12-hour cook, the fat will render and connective tissue will break down, making brisket an optimal choice for extended smoking.

How to Prep Meat for Smoking

If your cut of meat contains a large fat cap, you can trim it off to create more "bark," or crust, on the surface of the meat. The amount of trimming you'll need to do depends on what type of meat you're smoking, and personal preference. When it comes to seasoning meat for barbecue, we like to keep things relatively simple so that the flavour of the smoke and the meat shine through. We use kosher salt and 16-mesh "café grind" black pepper, which have roughly the same granular size, and mixes the two together evenly. We are not



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a fans of additional seasonings like garlic or onion powder, although for pork butt and ribs he does include a small amount of paprika to impart colour. To make seasoning easier, we mix our own rub ingredients in a plastic shaker with an adjustable lid and then sprinkles the rub onto the meat directly from the shaker.

Before applying the rub, we may apply an emulsifier like mustard or hot sauce to help the rub stick and form a bark. After a long cook, the slather won't have much impact on the flavour of the meat but it's still good to be judicious in how much you apply. The more slather you use, the more likely it is that your bark will flake off as the meat shrinks during the cook (though that's a much bigger concern for a cut like brisket than for, say, pork butt). Aim to get the meat tacky, but not wet. Finally, always apply the rub to the "presentation side" of your meat last, so as to avoid messing up its appearance when you flip the meat over to season the other side.

6 Tips for Smoking Meat

1. Making a game plan should be your first step whenever you're making barbecue. It's easy to get fatigued or forgetful during a long cook; the game plan is a way to keep you on track. Before each cook, writes out a detailed schedule, working backward from the time you plan to serve the meal. For instance, if you wants to serve brisket at 5:00 p.m. and anticipates a 12-hour cook with an additional hour for the brisket to rest, then you need to begin the cook at 4:00 a.m. If you going to cook at 255°F for the first three hours before pushing it to 265°F, you have to write down 7:00 a.m. as the time you need to start increasing the heat. If you plan to wrap the brisket eight hours in, you make a note that you should do so at noon.
2. Use hardwood, such as hickory, alder, maple, mesquite, oak, or pecan, or fruit wood such as apple or cherry. Avoid wood that looks powdery, rotten, or waterlogged. Don't Use softwoods like spruce, pine, or fir. These woods are higher in resin and oils that produce thick, acrid smoke when lit.
3. If your cut is uneven (such as a whole chicken), consider trussing it for more even cooking.
4. Smoke that is light blue in colour will produce the best smoke flavour, so don't be concerned if your smoke is almost invisible.
5. Open the lid to your cooking chamber as little as possible—the lid is what's trapping the smoke inside and bringing it into contact with the meat.
6. Use dry wood, since wet wood can cause uneven smoking.

How to Tell If Smoked Meat Is Cooked Through

To know when smoked meat is fully cooked, you'll need to check the internal temperature with a meat thermometer. Find out the target temperature for the type of meat you're cooking—brisket should be about 185°F, beef ribs 175°F, and pork butt 180°F—and then monitor the temperature by periodically inserting an instant-read thermometer into the thickest part of the meat. (You can also use a special WIFI-enabled thermometer to monitor temperature fluctuations.)



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DRY RUB

Dry rubs are a wonderful way to infuse a lot of flavour into the meat. What is a dry rub? It's very simple, dry rub is a combination of spices, herbs, and sugar. Basically, it's dry ingredients and spice ingredients mixed together for coating and flavouring meat.

When making homemade dry rub, it's best to incorporate all taste elements like **sweet**, **savoury**, and **spicy**. All three elements combined together make a flavour explosion for your taste buds.

When it comes to sweet, the best base is brown sugar. I often use dark brown sugar for an additional molasses flavour, which comes out even more when the dry rub starts to caramelize in heat.

For heat, I find cayenne to be the most complimentary of the other spices. If cayenne is not available, you can get the heat from chili powder. The reason I prefer cayenne is because it adds a good amount of heat without overpowering other flavours, like chili powder tends to do.

All other ingredients are the savoury flavour additions. Start with the must-haves like salt, black pepper, onion powder, and garlic powder. Then we add a few more layers of flavour from aromatic herbs like cumin and coriander.

When it comes to paprika, which is a big and important ingredient in a dry rub, I prefer to go with smoked, especially if I'm making meats in the oven. If I'm cooking on a grill or in the smoker, I can easily use regular sweet paprika since there will be plenty of Smokey flavour coming from the grill.



HOW TO USE DRY RUB

Dry rub is used on meats to get a lot of flavour into the meat without having any additional sauces or meats. Even though you can always add a glaze or a sauce after the meats have been cooked, it's absolutely not necessary with a dry rub.

It's incredibly simple to make and use as well. In just a few minutes and a few shakes, you will have this amazing aromatic combination of spices ready to be applied to the meat.



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Once dry rub is mixed, spread it in a rimmed baking sheet or a large bowl, whichever fits the meat you are using best. Add meat and generously rub it all over with the rub, getting every nook and cranny, while massaging the dry rub into the meat.

For many meats, like chicken breasts, brisket, or pork, I prefer to rub it and then refrigerate it overnight or even up to 12 hours. This will give the meat extra time to get as much flavour out of spices as possible.

Refrigerating the meat is not a necessary step, it just adds so much extra flavour. Rubbed meats can be cooked right away if there is no time to let it sit in the refrigerator.



TIPS FOR MAKING THE BEST DRY RUB:

When possible, use the freshest ingredients. Spices tend to lose their aroma and flavour after the jar has been open for 9 months. Use fresh spices and grind some fresh herbs like black pepper and coriander. (If you don't have spice grinder, you can also use a small coffee grinder.) Herbs are so much more aromatic when freshly ground.

It's best to quickly mix fresh dry rub right before using it but it can be prepared ahead of time and used at a later date.

If planning on grilling the meat with dry rub on it, it's best to not cook it right over direct heat but off to the side from direct heat. Direct heat will burn the dry rub versus caramelizing it.





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HOW TO STORE DRY RUB:

For the best way to keep dry rubs fresh, use a zip-lock freezer bag and store it in the freezer. Get as much air out of the bag as you can before sealing it.

You can also store dry rub for up to 6-months in air-tight jar in a cool dark place or in the refrigerator.

Make sure to date and label the bag or the jar.

