AN ESSENTIAL GUIDE TO

BRISKET

ThermoWorks

KING of BBQ

GOOD BRISKET IS LIKE GOOD JAZZ

In many ways, cooking is like playing music. There are harmonies of flavor and of sound. There are accents and emphasis and compositions both large and small. In classical music there are strict forms and rules to follow. The music is written out. When someone is learning a piece for a solo or for a large group, there is some wiggle room for musicianship, but they strive to play it the exact same way every time. Jazz is another story.

There are recognizable melodies and standard chord changes for every jazz tune, but how those changes are put into play, what notes are played, and how long any player stays in a solo is anyone's guess. The band has to feel it as it happens. They have to communicate as they play—get and give feedback. That's what Barbecue is like. And more specifically, that's what cooking barbecue brisket is like.

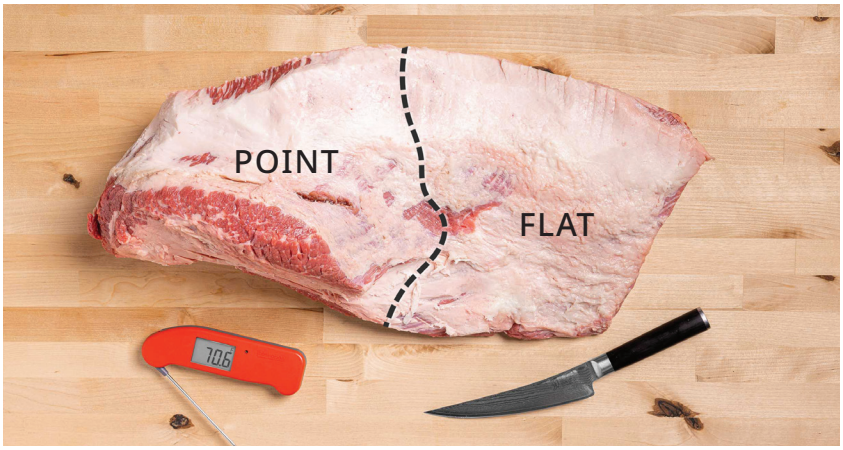
There's no sheet music. No fixed, certain, ever-predictable recipe for brisket. Ask three expert pitmasters how to make it and you'll get three different answers. Yes, there are recognizable shifts and changes that they're all likely to mention, but there's no Bach here, it's all Charlie Parker.

Just like jazz, success with brisket takes two things: 1. **learning the basics** and 2. **experimentation and practice.** And there's never been a better time to get started.

WHAT MAKES BRISKET SO DIFFICULT TO COOK?

A whole brisket—or "full packer"—is actually composed of two different muscles: **the flat and the point**. They are separated in the brisket by a thick layer of fat (the deckle) and cook at different rates.

- **Flat—**Relatively lean and prone to overcooking
- **Point—**Marbled with fat, which requires long cooking to render properly



WHAT IS BRISKET?

Brisket is one of the beef primals. It comes from the front of the cow and is sometimes called the "breast." A full-packer brisket is composed of the flat—a flat, straight-grained piece of meat with relatively little fat marbling—and the point—a fattier cut with grain running another direction. **Because the muscle is so well used by the cow, it's loaded with connective tissue.** In fact, the word "brisket" comes from an Old Norse word for cartilage! But don't worry, that toughness can be overcome with proper cooking.

Why "Low and Slow"?

The two-muscle problem is not the only puzzle we have to solve when barbecuing brisket. Thanks to its active position on the breast of the cow, brisket is positively packed with collagen. This **connective tissue must be rendered into luscious gelatin** for the meat to be tender, not tough and rubbery or chewy.

Collagen dissolution is not just a factor of temperature but also of time. Would that we could just stick a thermometer in the meat and blast it at high heat until it reached **203°F** (95°C). But getting there in an hour will only give us a brisket that is so rubbery, you could almost dribble it down the street. This is why our **theme of low heat plus time—or "low and slow"** as it is called—is so important. And it is why brisket cooking often involves late nights with a flashlight. We have to give the collagen time to break down. Depending on the method, brisket typically takes **from 6–16 hours** to cook.

BRISKET PERFECTION

Perfect brisket means different things to different pitmasters, but judges for the Kansas City Barbecue Society look for a very particular type of brisket doneness. They use what is called "the pull test" to check for over or undercooking of brisket. When a slice of brisket is held up it should be able to **support its own weight without breaking** or crumbling, but **should be easily pulled apart with a slight tug**. To the KCBS judges, if it falls apart with its own weight, it is overcooked. If it can't easily be pulled apart, it is undercooked.

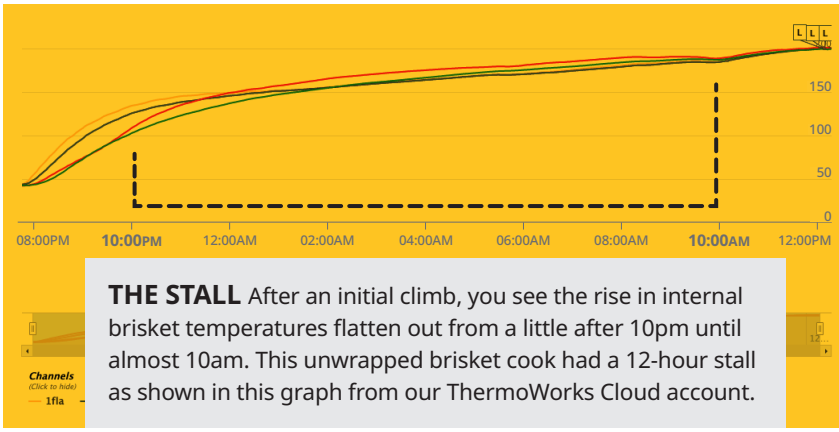
To you, that may or may not sound delicious. Perhaps you want absolutely fall-apart brisket. If so, that's fine, and you can get what you want by simply leaving your meat to cook a little longer—just don't take it to a KCBS event!

The Stall

When meat fibers begin to cook, **they contract and expel water** that is otherwise bound up in them. This is what causes meat to dry up when overcooked. In the case of brisket, the expelled water acts like perspiration, **causing evaporative cooling** to take place on the surface of the meat. This cooling literally causes the cooking of the meat to stall. **The stall starts at about 150°F (66°C) and runs up through about 180°F (82°C)**, and those thirty or so degrees can take upwards of six hours to get through. For new barbecue cooks, this can be a near panic inducing time. *Why isn't my brisket cooking?*

To make matters worse, the stall starts just below the temperatures where collagen dissolution begins. If only there were some way to get past the stall and into collagen dissolution!

The nature of the stall makes it hard to know where you are in your cook or how much longer you'll need to go. This is one of the reasons why it's so helpful to **track the internal brisket temperatures with an alarm thermometer**, so you know when to wrap and when to pull.



THE STALL After an initial climb, you see the rise in internal brisket temperatures flatten out from a little after 10pm until almost 10am. This unwrapped brisket cook had a 12-hour stall as shown in this graph from our ThermoWorks Cloud account.

> **The stall allows you to practice the art of barbecue patience. As long as you maintain...temperature, your brisket will eventually move beyond this stall, and the meat temperature will rise again.**
>
> **—Will Fleischmann, Southern pitmaster**

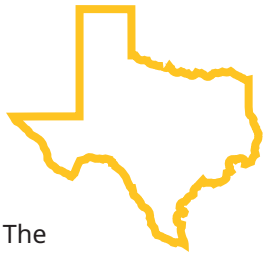
KEYS to SUCCESS

TENDER AND JUICY BRISKET

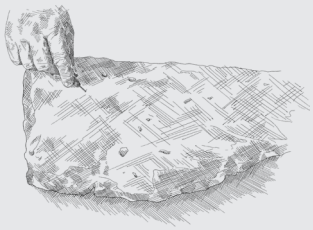
If the stall is caused by water being squeezed out of the muscle fibers, why don't we end up with dry brisket every time? Because of the collagen! As it cooks, **collagen connective tissue unwinds and renders into silky gelatin**—which is highly absorbent. The gelatin in brisket acts as a reservoir, holding on to water that is not bound up in the muscle fibers themselves. After the meat passes "well done" and is dried out, the collagen starts to unwind, replenishing the meat's structure with moisture. This is why low and slow cooking is so important. The meat actually dries out *before* it becomes moist again. The point when it starts to "rehydrate" is also when the tough fibers have broken down. So a juicy brisket will also be a tender brisket.

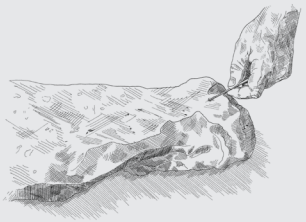
- Gelatin is strongly hydrophilic, holding up to **10 times its weight in water** and forming a viscous gel.

TEXAS CRUTCH



Long ago, legendarily in Texas, some pitmasters found that if they smoked their briskets partially, then wrapped them for the remainder of the cook, they got to their end goal sooner. The stall wasn't taking as long. Unbeknownst to those old-time cooks, the reason for this is that wrapping the brisket slows evaporative cooling. When the **brisket is wrapped** in, say, foil, a 100% relative-humidity micro-climate is established, meaning there is **no room for evaporation to take place**. No evaporation means no cooling and no cooling means **no stalling**. You can push right on through the stall without waiting for the meat to wring itself out like a sponge before re-heating. Called the "Texas Crutch," this method is the sworn technique of barbecue cooks the world over.





THERMOWORKS PROBE PLACEMENT

Good brisket is properly cooked throughout the whole muscle, not just the point or flat. To make sure everything is as tender and juicy as it should be, it can be helpful to monitor the temperature in *both* places. If you're using a thermometer with only two probes, use one to monitor your pit temp and the other deep in the point of the brisket. But if you have access to *more* probes, it's **best to probe both the point and the flat**.

1. Place one probe in the **middle of the plane of the flat** at a relatively flat angle (the point is thin and a flatter angle will be easier to get right). Insert the probe until the tip is in the center of the meat.
2. Place another probe tip in the **center of the point**, so that it is the furthest it can be from any surface. This probe will show a lower temp throughout most of the cook because heat is taking longer to get to it!

PREPARING BRISKET

TRIMMING

Trimming a brisket is an important step in preparing it for cooking and helps ensure that the meat cooks evenly and achieves a desirable texture and flavor. **Always move the knife edge away from you as you trim**.

1. Start by inspecting the top of the brisket. Look for any **thick, white, hard portions of fat or sinew** and use a sharp knife to carefully cut them away. This hard fat doesn't render.
2. Next, **remove any silver skin** by pulling up on the end and following it along with your knife.
3. Trim the layer of **soft fat down to about ¼ inch** of thickness. This thin fat layer will help keep your brisket moist and add flavor.
4. Trim around the edges of the brisket to **create a more uniform shape**—think "aerodynamic." Round the corners and remove any small pieces of that are hanging off.
5. Flip the brisket over and repeat steps 1–3.

SEASONING

Many expert pitmasters swear by a **50/50 blend of kosher salt and freshly ground pepper** to season their briskets. Others add heat or sweetness with additional spices like paprika, cayenne, garlic or onion powder, brown sugar, or custom-made rubs.

- Start by **rinsing the brisket under cold water** and patting it fully dry with paper towels.
- If you want to use a "binder" to help your seasoning adhere, **massage both sides with yellow mustard**, Dijon, vegetable oil, or Worcestershire sauce.
- With your hand or shaker five inches above the surface, **liberally apply seasoning** to both sides of the brisket.
- Gently pat the seasoning into the meat to help it adhere.
- Layer in additional seasoning as desired.

THREE DIFFERENT METHODS

There are three standard methodical themes for cooking brisket. You can **cook it naked** (no wrapping, no crutching), **wrapped in foil**, or **wrapped in peach paper**. From those three divisions sprout a multiplicity of further divisions, all of which we can't get to, but we can lay out the three basic approaches.

As the goal is low-temp cooking, most people **keep their smokers at either 225 or 250°F** (107 or 121°C). There are hotter variations, but we'll stick to the slower cooks here. And though you can wrap at many points in the cook (if you're wrapping), in general, **wrapping at about 150°F (66°C) internal temperature is pretty common**. (That usually happens about 4½ hours into the cook, around the same time that the bark has really set up.)

NAKED METHOD* For this method, you guessed it, you don't wrap the brisket. We love this method because it yields the very best bark—strong, almost crisp, and just wonderful. The naked cook is also the easiest of the three methods. Get your smoker up to temp, put your trimmed, seasoned brisket in, and **wait for the internal temperature to reach about 203°F**. The disadvantage? It takes a long time. **Expect 14–16 hours**, depending on the size and starting conditions of your brisket. But by the time you get to the pull temp, everything has been in the collagen-melting zone for long enough that you **don't need much of a rest** before you can slice in and get to eating.

* Note that at elevations above 2,000 feet, most pitmasters suggest using some kind of crutch (foil or peach paper) to avoid drying out the brisket before its tender.

ALUMINUM FOIL METHOD This is the most traditional crutching approach. Foil is impermeable to water, so it creates a steam-proof barrier to evaporation. Its biggest advantage is speed. **You can cook a whole packer brisket in as little as 8 hours** this way, so you can get dinner ready *today*. Plus, the water retention and speed can help ensure a juicier flat, which can dry out during longer cooks. But you need to wrap it at the right time: wrap too soon and your bark will slough off in the steam bath you create. Take the time to **be sure the bark is well set with a vigorous scratch test** before wrapping. Be sure to **give this brisket a good rest** before you serve it—speeding up to temp may not have made it fully tender yet. An hour or two in a cooler, still wrapped, will do it a world of good.

PEACH PAPER METHOD This is the compromise method—halfway between naked and foil. Peach paper is a pink-colored, **uncoated butcher paper** you can buy from most BBQ suppliers that is a semi-permeable barrier to evaporation. Yes, you get a relative humidity environment in the wrap, but some water will also be escaping through the paper, so the brisket isn't "braising" in its own juices. We find that our **bark is a little more forgiving with this method** than it is with foil. It is a little faster than a naked brisket but not nearly as fast as the foil method. **Plan on 12–14 hours for a full-packer brisket**. It can be a little juicier than the naked one, but you may have to get up in the middle of the night to tend it, depending on when you want it to be done. **A rest is also useful**, though it isn't as crucial as it is for the foil method.

BARK

We need to talk for a second about bark. What is it? Bark is the result of seasoning, time, proteins, and heat. As the salt in your BBQ rub draws liquid from the brisket (osmosis), it brings with that water a mix of various proteins. Those proteins mingle with the salt and other spices and cook in place when exposed to heat, tightening into a dense network. The result is a crust of extra flavor surrounding the tender meat.

Because it is rough, dry-ish, and dark colored, it was called "bark" by early pitmasters, and the name stuck.

To make sure your **bark is well set before you wrap your brisket, give it a scratch test**. Scratch the surface and see if the seasoning comes off easily or not, If it feels rough and doesn't scrape off easily, the bark is set. It will take a few hours to accomplish this. If you don't set the bark properly before you wrap your brisket, it will sweat off during the cook—not an outcome anyone is looking for!

EAT UP

KEY TEMPS

225-275°F (107-135°C)
"Low and Slow" smoker temperature—use a **fan like Billows** to ensure **consistent smoking temps** throughout the whole cook.

150°F (66°C)
Approximate temperature at which to **wrap your brisket** if you are using the "crutch." Many pitmasters look for a set bark.

200-210°F (93-99°C)
Approximate **pull temperature** for your brisket. The actual pull temperature will depend upon the grain and fat content of the meat. **Look for extreme tenderness** when you probe the meat with your thermometer ("like butter").

HOW TO SLICE BRISKET

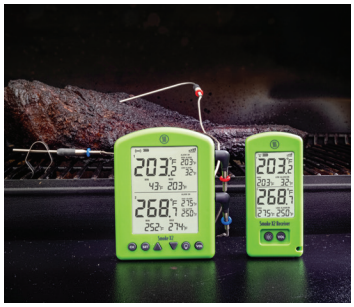
Properly slicing the brisket is important to ensure that the meat is tender, juicy, and flavorful. You want to **slice *against* the grain** to avoid chewiness, but since the grain of the flat and the grain of the point **run in different directions**, you have to **turn your brisket halfway through**...

1. Look for the natural seam that runs through the center of the brisket, separating the flat and point muscles. Use a sharp knife to **cut along this seam** to separate the two muscles.
2. Slice the flat **roughly parallel to your initial cut** allowing about **¼ inch** between each slice.
3. Next, slice the point muscle ***perpendicular* to your initial cut** allowing about **½ inch** between each slice.

RECOMMENDED PRODUCTS

Signals

BBQ professionals look to Signals as the operational hub of their BBQ. Signals **wirelessly pushes critical temps and alarms to your smart device** and web dashboard for tracking and analysis. Add an optional Billows fan to dial in your smoker temps.



Smoke X

A great alternative to Signals is Smoke X. Experience guaranteed remote temperature tracking from around your yard or inside your home. Smoke X receivers feature **next generation RF technology** with the accuracy and durability you expect from ThermoWorks.

Thermapen ONE

With **full readings in ONE second or less**, Thermapen ONE approaches the speed of thought—allowing you to focus exclusively on the quality of your work. Achieve such speed and **accuracy to ±0.5°F** without sacrificing durability or usability.

Billows

When connected to a ThermoWorks compatible controller like Signals or Smoke X, the Billows fan **quickly gets your smoker up to the target cooking temperature quickly and keeps it there** during the entire cook, whether you're cooking in a stick-burner, ceramic, barrel, or drum cooker.

Recipe for a Basic Brisket (Naked Method)

Prep time: 30 minutes

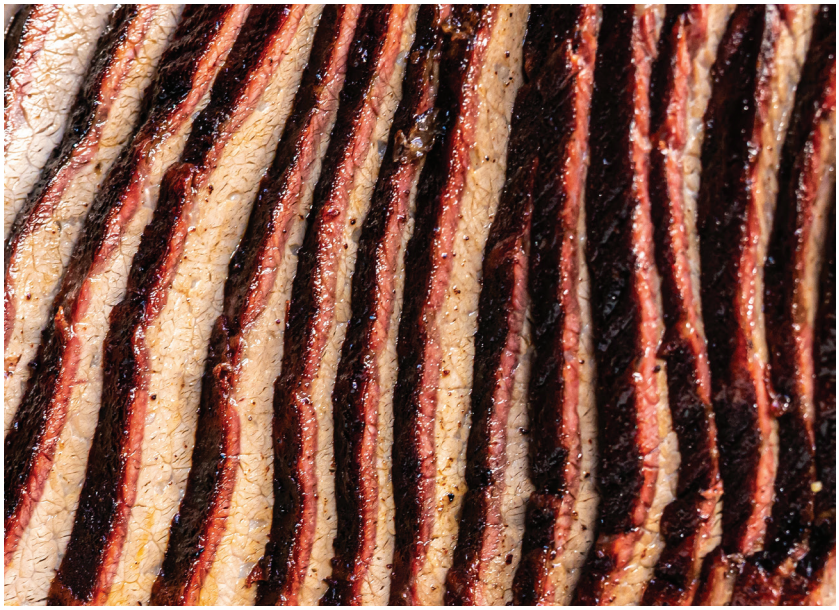
Cook time: about 15 hours

Ingredients

- 1 full packer brisket, 12–14 lbs
- Coarse ground black pepper and kosher salt in equal volumes (about ½ C of each), combined
- 2–3 Tbsp yellow mustard

Instructions

- Preheat your smoker to 225°F (107°C). If using a non-pellet smoker, Billows™ BBQ control fan will help you achieve and maintain the correct temperature. Either way, monitor the temp using a leave-in probe thermometer like Smoke X2™.
- Trim your brisket, removing all but about ¼ " of fat from the fatty side and nearly all the fat from the lean side.
- Rub half the mustard into one side of the brisket. It shouldn't be thick, just enough to tint the meat yellow.
- Liberally apply the combined salt and pepper (your rub) to the mustardy meat.
- Flip the brisket over and apply mustard and rub in the same manner.
- Place your brisket in the smoker, fat-side down, and insert a temperature probe in the point. Set the high-temperature alarm for your meat channel to 203°F (95°C).
- Smoke!
- When the high-temp alarm sounds, verify the internal temperature (and the tenderness) using your Thermapen® ONE. If everything is up to temp and the meat is jiggly and tender, remove it from heat and allow it to rest, covered.
- After resting at least an hour, slice the brisket and serve!



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