PAN-SEARED THICK-CUT STRIP STEAKS

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The traditional pan-searing technique produces a brown crust, a pink center, and a gray band of overcooked meat in between. Could we eliminate the gray zone?

The Problem

Pan-searing a thick-cut steak (a steak almost as thick as it is wide) presents a unique challenge: How to keep the perimeter from overcooking while the very center of the steak reaches the desired temperature. We wanted our steak to have a good crust and medium-rare center, without a wide band of dry, gray meat between the two.

The Solution

We found it was essential to sear the steaks quickly to keep the meat directly under the crust from turning gray. The key was to start with dry meat. We moved the steaks straight from the fridge into a 275-degree oven, which not only warmed them to 95 degrees but also dried the meat thoroughly. At this temperature, when the steak met the hot skillet, it developed a beautiful brown crust in less than four minutes, while the rest of the meat stayed pink, juicy, and tender.

WHY THIS RECIPE WORKS:

The key to our ideal pan-seared steak recipe was to start the steaks in a cool oven and then to sear them. And by searing the steaks quickly, we kept the meat directly under the crust from turning gray. Cooked this way, the steaks developed a beautiful brown crust in less than four minutes, while the rest of the meat stayed pink, juicy, and tender.

Porterhouse, T-bone, Rib-eye or filet mignon of similar thickness can be substituted for strip steaks. If using filet mignon, buying a 2-pound center-cut tenderloin roast and portioning it into four 8-ounce steaks yourself will produce more consistent results. If using filet mignon, increase the oven time by about 5 minutes. When cooking lean strip steaks (without an external fat cap) or filet mignon, add an extra tablespoon of oil to the pan. If desired, serve with a pan sauce, relish, or butter.

- **2** boneless strip steaks (1 1/2 to 1 3/4 inches thick (about 1 pound each) (see note above)
- Kosher salt and ground black pepper
- **1** tablespoon vegetable oil

INSTRUCTIONS

1. Adjust oven rack to middle position and heat oven to 275 degrees. Pat steaks dry with paper towel. Cut each steak in half vertically to create four 8-ounce steaks. Season entire surface of steaks liberally with salt and pepper; gently press sides of steaks until uniform 1 1/2 inches thick. Place steaks on wire rack set in rimmed baking sheet; transfer baking sheet to oven. Cook until instant-read thermometer inserted in center of steak registers 90 to 95 degrees for rare to medium-rare, 20 to 25 minutes, or 100 to 105 degrees for medium, 25 to 30 minutes.

2. Heat oil in 12-inch heavy-bottomed skillet over high heat until smoking. Place steaks in skillet and sear steaks until well-browned and crusty, about 1 1/2 to 2 minutes, lifting once halfway through to redistribute fat underneath each steak. (Reduce heat if fond begins to burn.) Using tongs, turn steaks and cook until well browned on second side, 2 to 2 1/2 minutes. Transfer all steaks to wire cooling rack and reduce heat under pan to medium. Use tongs to stand 2 steaks on their

sides. Holding steaks together, return to skillet and sear on all sides until browned, about 1 1/2 minutes. Repeat with remaining 2 steaks.

3. Transfer steaks to wire cooling rack and let rest, loosely tented with foil, for 10 minutes while preparing pan sauce. Arrange steaks on individual plates and spoon sauce over steaks; serve immediately.

Temperature Guide: Steak is most flavorful and most tender when cooked to an internal temperature of 130-145 degrees.
Rare 125-130
Medium Rare 135-140 degrees
Medium Well 145-150 degrees

Why do our steaks—which spend a long time in the oven—taste juicier and more tender than traditionally cooked steaks?

Our steaks spend a long time in a warm oven, during which they lose about 15 percent more moisture than a traditionally prepared steak. Yet in a side-by-side test, our steaks tasted both juicier and more tender. If traditionally cooked steaks have more juice in them, why don't they taste juicier?

Meat consists of groups of cells that are covered by long sleeves of collagen. As meat is heated above 140 degrees, the collagen shrinks, bursting the cells within. The liquid that was held within these cells now floats freely in the meat. This is what's happening in the gray zone, and when eaten, the liquid inside will flow out copiously with the first couple of chews, leaving you with not much more than a wrung-out sponge in your mouth. On the other hand, if meat is kept between 120 and 140 degrees (as with our method), the cells remain intact and the juice stays put until pressure is placed upon them, resulting in a steak that slowly releases its juices with each chew. It turns out that less juice released more slowly provides a greater sensation of juiciness than more juice released all at once.

This explains the juiciness, but what about the tenderness? Meat contains active enzymes called cathepsins, which break down connective tissues over time, increasing tenderness (a fact that is demonstrated to great effect in dry-aged meat). As temperature rises, these enzymes work faster and faster, until they reach 122 degrees, where all action stops. While our steaks are slowly heating up, the cathepsins are working overtime (in effect "aging" and tenderizing our steaks within half an hour). When steaks are cooked by conventional methods, their final temperature is reached much more rapidly, denying the cathepsins the time they need to properly do their job.

Why should I allow meat to rest before serving?

A final but very important step when cooking all red meat and pork is a resting period after the meat comes off the heat. As the proteins in the meat heat up during cooking they coagulate, which basically means they uncoil and then reconnect in a different configuration. When the proteins coagulate, they squeeze out part of the liquid that was trapped in their coiled structures and in the spaces between the individual molecules. The heat from the cooking source drives these freed liquids toward the center of the meat.

This process of coagulation explains why experienced chefs can determine the "doneness" of a piece of meat is by pushing on it and judging the amount of resistance: the firmer the meat, the more done it is. But the coagulation process is apparently at least partly reversible, so as you allow the meat to rest and return to a lower temperature after cooking, some of the liquid is reabsorbed by the protein molecules as their capacity to hold moisture increases. As a result, if given a chance to rest, the meat will lose less juice when you cut into it, which in turn makes for much juicier and more tender meat.