# THE ABBREVIATED BEEF BOOK

# INTRODUCTION
TO
# BEEF AND ITS CUTS

# BRIEF HISTORY

It seems a general agreement among historians that Aurochs were the model from which modern day domestic cattle originated. Now while there cannot be one definition that is universally accepted as this is no exact science, they have a heavy characteristical presence in a few of the known domestication of bovine events, specifically the taurine (b. taurus subspecies) domesticated across the Fertile Crescent, which remnants suggest occurred some 8,000 years ago, as well as the zebu (b. indicus, humped cattle) domesticated in the indian region somewhere between 7,000-9,000 years ago.



# GRASS-FED BEEF



The classic idiom “you are what you eat” applies just as well to cows as it does to humans, and there are some pretty significant differences in the quality of red meat based on how the animal was fed.
In the case of grass-fed vs. CAFO (confined animal feeding operations) meat, there’s a lot more to consider than hormones and fatty acids. There’s also antibiotic use in CAFO cattle and the increased risk of foodborne illness in CAFO meat, and there are several economic and social issues as well. Grass-fed animals are generally treated in a more humane way than CAFO animals. If you’ve ever visited a CAFO you will know what I mean. It’s shocking and disgusting. I personally prefer to support local farmers that use traditional methods of animal husbandry, that pay attention to how the animals are treated and slaughtered, and who care about every phase of the process. I like the money I spend on food to stay in my local community whenever possible.

The two fatty acids you’re probably most familiar with are our old friends omega-3 and omega-6. Now while there is no significant research that shows that grain feeding alters levels of omega -6 what you will be missing out on are the significantly higher levels of omega-3s found in grass-fed beef. Depending on the breed of cow, grass-fed beef contains between 2 and 5 times more omega-3s than grain-fed beef, and the average ratio of omega-6:omega-3 in grass fed beef is 1.53:1. In grain fed beef, this ratio jumps all the way up to 7.65:1.

Another reason grass-fed meat surpasses grain-fed is that it contains considerably more antioxidants, vitamins, and minerals. Carotenoids, such as beta-carotene, are precursors to vitamin A that are found as pigments in plants. Grain-fed beef does not contain appreciable levels of carotenoids, for the simple reason that grains don’t contain them. However, cows that eat carotenoid-rich grass and forage incorporate significant amounts of these compounds into their tissues. These carotenoids make the fat from grass-fed beef more yellow than the fat from grain-fed beef, so fat color can be a good indicator of how nutrient-rich your meat is.

Grass-fed beef also contains significantly more of the antioxidants vitamin E, glutathione, superoxide dismutase (SOD), and catalase than grain-fed beef. These antioxidants play an important role in protecting our cells from oxidation, also work together synergistically to protect the meat itself from damage during the journey from butcher to plate. These antioxidants are especially important if you choose to fry or grill your meat, because those high-heat cooking methods can be more damaging to meat than wet or low-heat methods such as stewing or braising.

# BEEF CUTS



## 1 ROUND

Top round steak
Bottom round roast
Bottom round steak
Eye round roast
Eye round steak
Round tip roast
Round tip steak
Sirloin tip center roast
Sirloin tip side steak

## 2 SIRLOIN

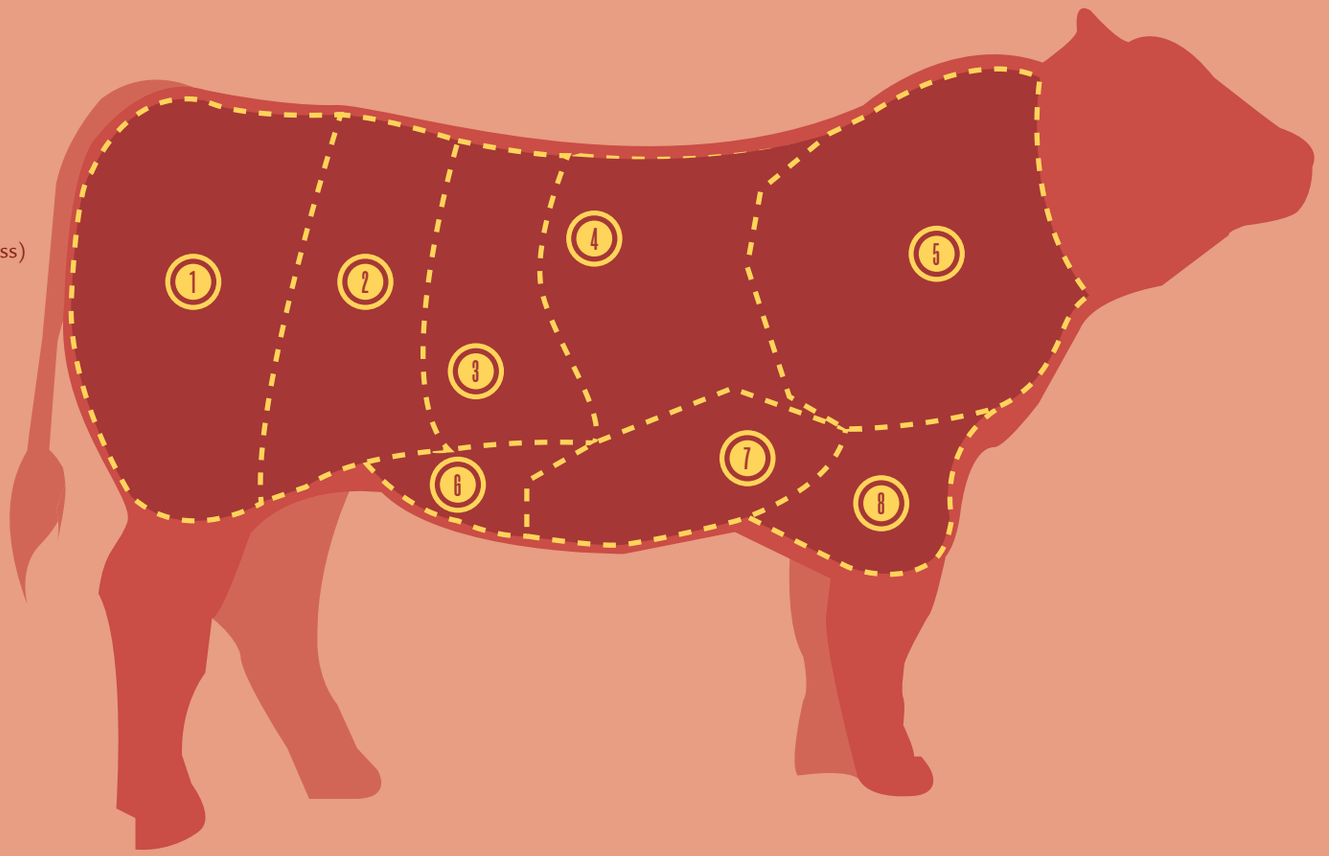
Trip-tip roast
Trip-tip steak
Top sirloin steak

## 3 LOIN

Porterhouse steak
T-bone steak
Top loin steak
Top loin steak (boneless)
Tenderloin roast
Tenderloin steak

## 4 RIB

Rib roast
Rib steak
Ribeye roast
Ribeye steak
Back ribs




## 5 CHUCK

Chuck 7-bone pot roast
Chuck pot roast
Chuck steak
Chuck eye steak
Shoulder top blade steak
Shoulder pot roast
Shoulder steak
Shoulder center
Shoulder petite tender
Shoulder petite medallions
Boneless short ribs

## 6 FLANK

Flank steak

## 7 PLATE

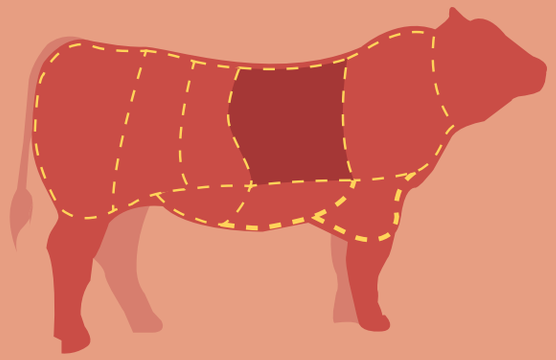
Skirt steak

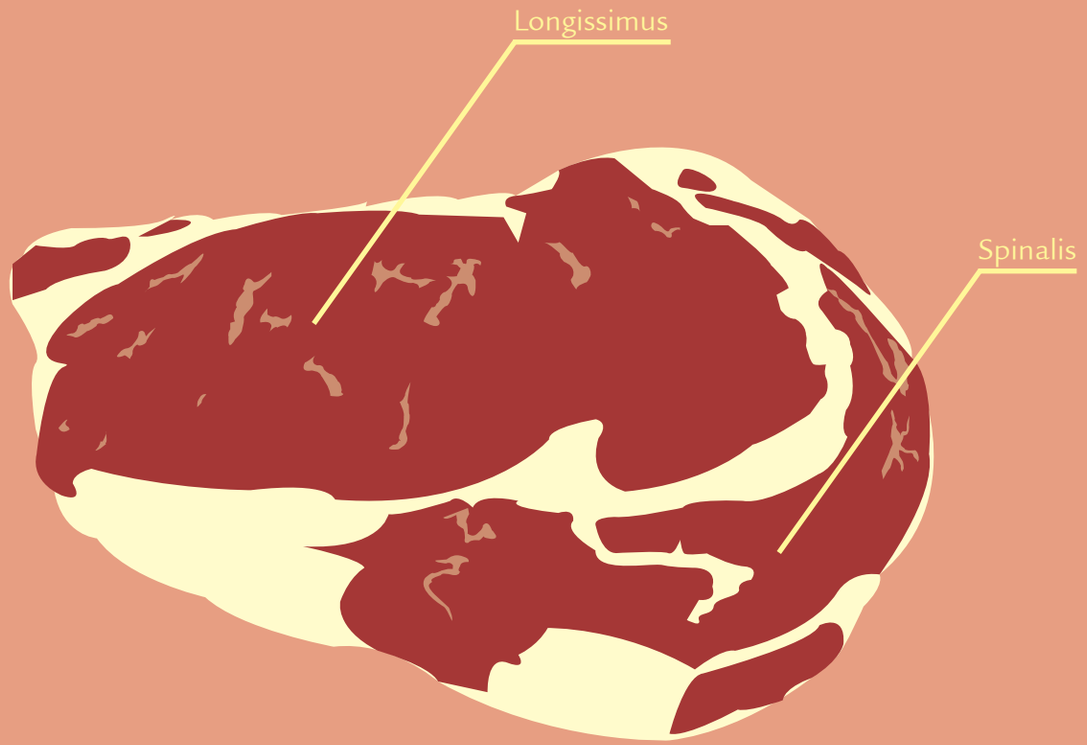
## 8 BRISKET

Brisket
Brisket flat cut
Shank cross cut

# THE RIBEYE

*also known as:*
Beauty steak
Market steak
Delmonico steak
Spencer steak
Scotch Filet
Entrecote






## WHERE IS THIS CUT FROM?

The front end of the Longissimus dorsi, from the Rib primal of the steer. The further towards the head of the steer you get, the more of the Spinalis muscle you'll find in your steak—that's the cap of meat that wraps around the fatter end of the steak.

## WHAT DOES IT TASTE LIKE?

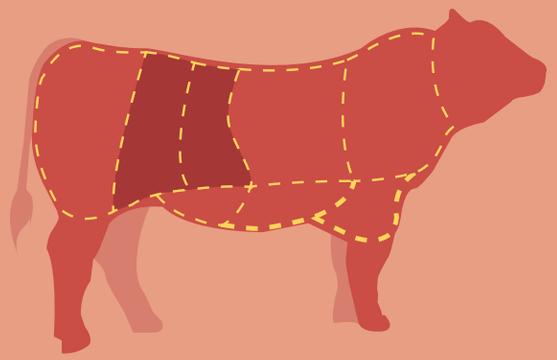
Highly marbled with a large swath of fat separating the Longissiumus from the Spinalis. Fat is where a lot of the distinctive flavor of beef comes from, making ribeye one of the richest, beefiest cut available. The central eye of meat tends to be smooth textured with a finer grain than a strip steak, while the Spinalis section will have a looser grain and more fat. Many people consider the Spinalis to be the absolute tastiest quick-cooking cut on the cow.

## HOW SHOULD I COOK IT?

Pan-frying, grilling, broiling. Because its copious fat is prone to causing flare-ups, grilling can be a bit tricky. Have a lid ready, and stand by with the tongs in case you need to rapidly spring into action and retrieve them from the depths of a fireball.

# THE T-BONE

*also known as:*
Porterhouse
(when tenderloin section is 1 1/2-inches or wider)

## WHERE IS THIS CUT FROM?

The T-bone is a two-for-one cut—it's comprised of a piece of tenderloin, and a piece of strip separated by a T-shaped bone. The regular T-bone is cut from the front end of the Short loin primal, just after the tenderloin starts, giving it a smallish piece of tenderloin (between 1/2- and 1 1/2-inches wide). A Porterhouse steak, on the other hand, is cut from further back and has a section of tenderloin at least 1 1/2-inches wide

## WHAT DOES IT TASTE LIKE?

The strip section tastes like strip,tight texture with a definite grain means strip steaks are moderately tender, but still have a bit of chew. Good marbling and a strong beefy flavor. And the tenderloin tastes like, well, tenderloin.Extremely tender with an almost buttery texture. Very low in fat, and correspondingly low in flavor.

## HOW SHOULD I COOK IT?

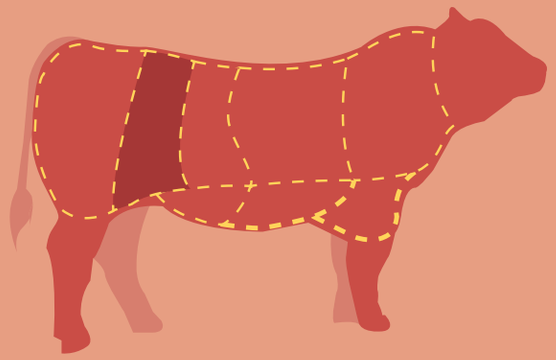
Grilling, broiling. Because of the irregularly-shaped bone, pan-searing is extremely difficult with a T-bone. As the meat cooks, it tends to shrink down a bit. The bone ends up protruding, preventing the meat from getting good contact with the pan surface, and inhibiting browning. Because of this, you're much better off grilling it.

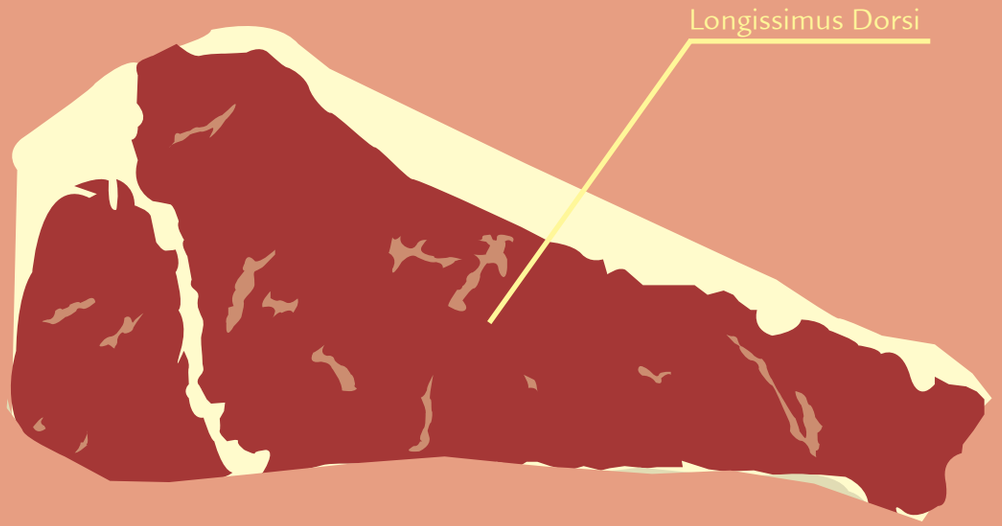
But even grilling isn't completely straight-forward. Remember how the leaner tenderloin cooks faster than the fattier strip? That problem is compounded by the fact that the tenderloin section of the T-bone or Porterhouse is much smaller than the strip. The result is a tenderloin that ends up overcooking before the strip is even close to done.

But never fear! There's an easy way to fix this problem. When grilling or broiling, just make sure you position the steak such that the tenderloin is further away from the heat source than the strip. Under a broiler, that means that the steak should be oriented so the strip rests closer to the heating element or flame. On a grill, this means building a modified two-level fire (that's all the coals under one half of the grill, leaving the other half empty; on a gas grill, light one or two of the burners, leaving the other one off), then positioning the steak over the fire so that the tenderloin sections are closest to the empty side of the grill.

# THE STRIP

*also known as:*
New York Strip
Kansas City Strip
Top Sirloin
Top Loin
Shell Steak (bone in)
Contre-filet






## WHERE IS THIS CUT FROM?

The Longissimus dorsi muscle, towards the rear-end of the steer in the Short loin primal (that's the primal just behind the ribs)

## WHAT DOES IT TASTE LIKE?

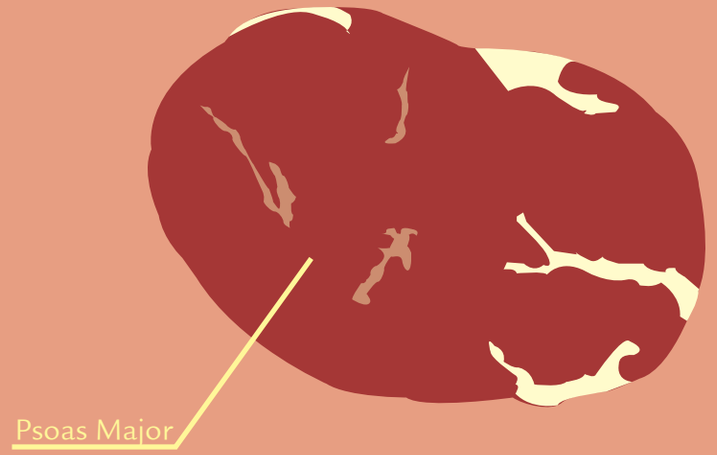
Tight texture with a definite grain means strip steaks are moderately tender, but still have a bit of chew. Good marbling and a strong beefy flavor. Not as robust as ribeye, but much easier to trim with no large pockets of fat, making it an easy-to-cook, easy-to-eat cut.
A favorite of steakhouses.

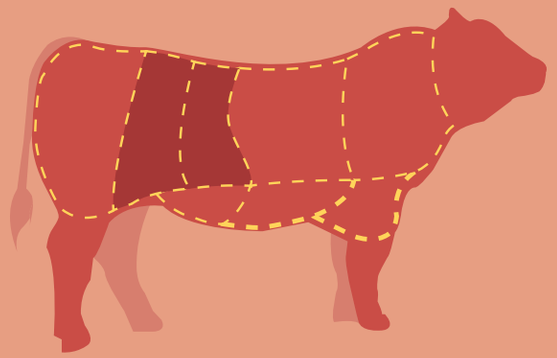
## HOW SHOULD I COOK IT?

Pan-frying, grilling, or broiling are the best ways to coax flavor out of this cut. It is easier to grill than ribeyes, as it has less fat meaning less flarreups, and less burning.

# THE TENDERLOIN

*also known as:*
Filet
Filet mignon
Fillet
Chateaubriand (center roast for two or more)
Tournedo (small section close to the rib)



## WHERE IS THIS CUT FROM?

The central section of the Psoas major muscle in the Short loin primal of the steer.

## WHAT DOES IT TASTE LIKE?

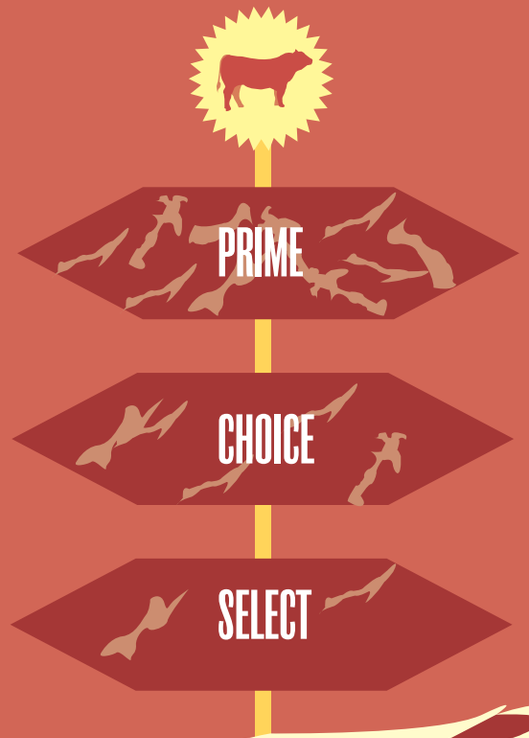
Extremely tender with an almost buttery texture. Very low in fat, and correspondingly low in flavor. To be honest, unless you are looking for a low-fat cut or prize tenderness above all-else, you're better off with one of the other, less expensive cuts.

## HOW SHOULD I COOK IT?

Pan-frying, or grilling. Because it's so low in fat and fat conducts heat more slowly than muscle, tenderloins tend to cook much faster than other steaks and are far more prone to drying out. Pan-frying in oil and finishing by basting it with butter helps add some richness, as does wrapping it in bacon before grilling (a very common approach). Even better is to purchase and roast or grill-roast it whole as a Châteaubriand—less surface area means less moisture loss. Because of its mild flavor, it's often paired with flavorful sauces or compound butters.

# MARBLING AND AGING

# MARBLING




## MARBLING GRADES

All beef that's sold in the U.S. is graded by the United States Department of Agriculture on a scale according to its tenderness and degree of marbling. At the top of the heap is Prime, which denotes an abundant degree of marbling in a cow under 42 months of age. Only about 2% of the beef sold in this country is designated Prime, and most of it goes to restaurants, specialty butchers, and high end supermarkets. Below that is Choice, followed by Select, which are the two grades you'll find in most supermarkets.

The grades continue to go down all the way to Canner, which generally comes from very old cows with little fat in their tough meat. Luckily for us, you won't find that grade in stores (it's reserved for such savory applications as school lunches and dog food).

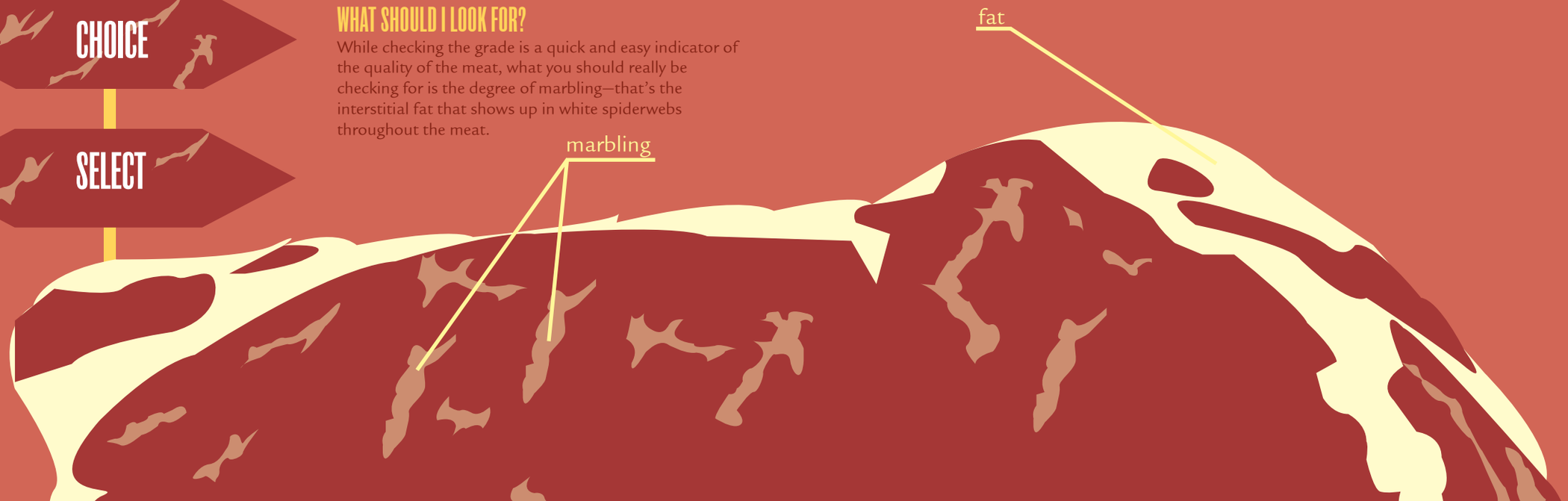
## WHAT SHOULD I LOOK FOR?

While checking the grade is a quick and easy indicator of the quality of the meat, what you should really be checking for is the degree of marbling—that's the interstitial fat that shows up in white spiderwebs throughout the meat.

## WHY IS IT IMPORTANT?

Two reasons: moisture and flavor. As well-marbled meat cooks, the fat will slowly melt, adding juiciness built right into the meat. Non-marbled meat might have plenty of fat on the exterior, but it doesn't enhance the steak in the same way. Sort of like the difference between drinking a glass of chocolate milk or drinking the milk then shooting the chocolate syrup.

Flavorwise, almost all of the compounds our tongues sense that give us the thought "ooh, that's beefy" are found in the fat. In fact, if you take the fat out of a piece of beef and replace it with lamb fat, it'll taste like lamb. Want chicken-flavored beef? Cook lean beef in chicken fat.



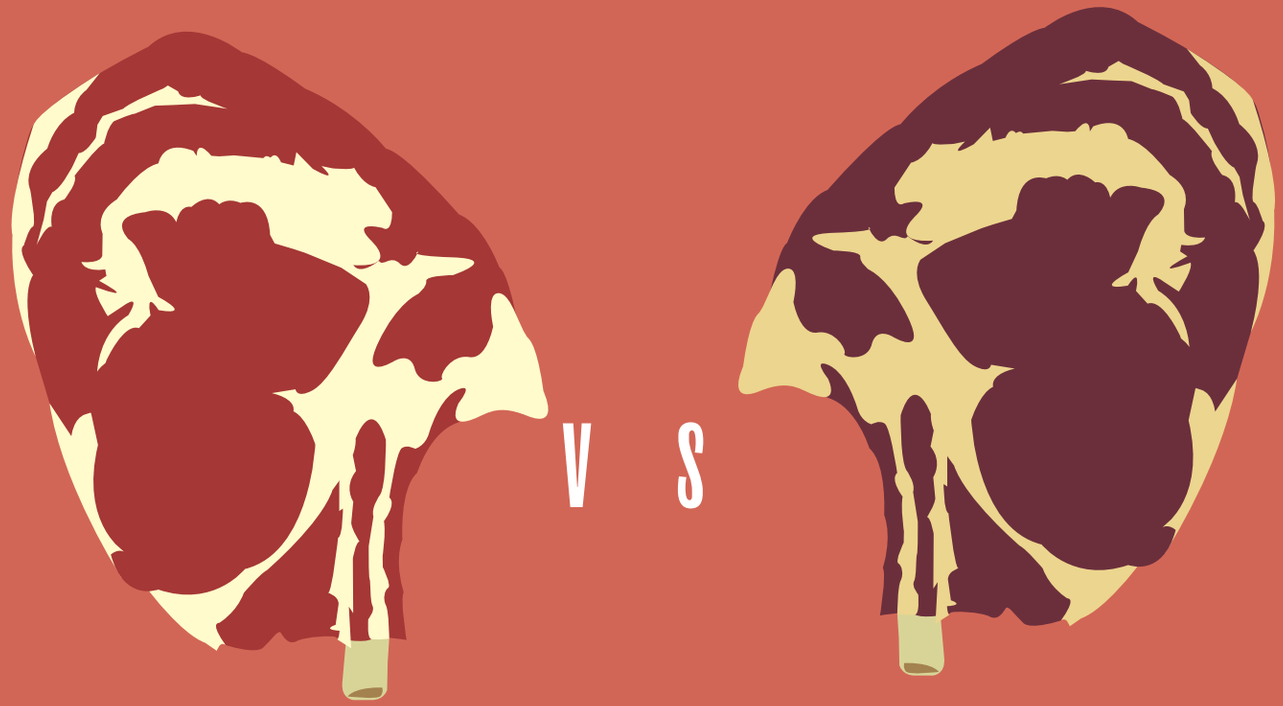
# AGING

## WHAT IS AGING?

Aging is a realitively new process in the meat industry, not a new process per say as fermenting foods for flavor has been around for ages, rather it is a practice that is now being recognized and widely accepted for its effects on flavor and tenderization.
Agging is a process in which enzymes within the meat begin to break down some of the muscle fibers tenderizing the beef, as well as some bacterial action that changes its flavor.

## WET-AGED BEEF

So-called wet-aged meat is meat that has been placed in a vacuum-sealed bag and allowed to rest for a few weeks (usually while in transit from packing plant to distributor to supermarket). A wet aged steak shows some improvement over a standard non-aged steak in terms of tenderness—there are enzymes present in the meat that will break down tough connective tissue over time.




## DRY-AGED BEEF

Dry-aged meat is meat that has been stored in a temperature and humidity-controlled room for anywhere from a week and up to 10 weeks or longer. During this time, three things happen:

Moisture loss is a major factor. A dry-aged piece of beef can lose up to around 30% of its initial volume in water loss, which concentrates its flavor.

Tenderization occurs when enzymes naturally present in the meat act to break down some of the tougher muscle fibers.

Flavor change is probably the most relevant. Due to numerous reasons including enzymatic and bacterial action, properly dry-aged meat will develop deep nutty, cheesy aromas.

Whether you want dry-aged meat or not is a matter of personal choice. I personally love the funky, blue cheese notes of a very old dry-aged steak and am willing to shell out the extra 20 to 25% it costs. Others prefer the cleaner flavor of fresh beef.

*** despite what some folks may tell you, it is pretty much impossible to dry age properly at home. To age a steak, you require an intact, untrimmed portion of beef (the outer layers become inedible and must be trimmed off). You can leave a steak in the fridge for a few days and some amount of tenderization will occur, but this is hardly the same thing.

# PREPARATION AND COOKING

# MARINADE

## WHAT IS MARINATING?

Marinating is the process of immersing your beef, or protien or virtually anything you might want to eat, but in this case beef in a mixture of flavorful ingredients in order for them to impart some of their characteristics onto your cooked product.

## WHAT DOES IT TASTE LIKE?

Contrary to what you may think, marinade actually does not penetrate particularly far into meat—even over the course of a few days, the bulk of the aromatic compounds in a marinade will travel mere millimeters into the meat (the exception being salt, small sugar molecules, and some acids). In reality, a marinade is mostly a surface treatment, and not much benefit lies in marinating for more than half a day or so. If you'd like the flavor of the marinade to completely coat your meat, your best bet is to reserve some marinade and simply toss your meat with it after it has been cooked and sliced.


## WHAT INGREDIENTS SHOULD I FOCUS ON?

Here are a few ingredients you should consider when constructing a marinade:

**Salt** is absolutely essential. It is one of the few ingredients that penetrates and seasons meat deeper than the outer surface. I like to add my salt in the form of soy sauce or fish sauce, which are also very high in glutamates, adding extra savoriness to my meat.

**Sugar** when used in moderation will help the meat brown better on the grill, creating strong smoky, charred flavors. A touch of sugar also balances salt nicely.

**Aromatics** are mainly a surface treatment, but they can still be quite powerful. Garlic, shallots, dried spices, herbs, or chilis are all good things to experiment with.

**Oil** is often a primary ingredient in marinades. Many aromatic compounds, such as those found in garlic, are soluble in oil but not in water. The oil will help spread these flavors evenly across the surface of the meat, as well as lubricating and protecting the meat when it first hits the grill.

**Acid** can balance flavors, but should be used sparingly. It can denature proteins in the meat, causing it to turn mushy over time. With very acidic marinades, it's particularly important to not overmarinade—certainly no more than half a day.

# GRILLING

## BE PREPARED

Even more than with indoor cooking, grilling requires you to be prepared. Mise en place is everything. Have your tools, meat, vegetables, brushes, platter, cutting boards, utensils, sauces, sides, condiments, and hungry mouths ready before you light up the coals. Unlike an indoor burner which you can shut off and restart at moment's notice, with an outdoor grill, once the coals get going, you have very little control over when your food will be ready. Make sure you are ready when it is.

## SALT IN ADVANCE

Truth of the matter is that you should salt your meat about 40 minutes before it hits the grill. When the salt first hits a steak, it sits on the surface. Through the process of osmosis, it'll slowly draw liquid out of the mat, which you'll see pool up in little droplets. As those droplets grow, the salt will dissolve in the meat juice, forming a concentrated brine. At this stage in the game—about 25 to 30 minutes in—your steak is in the absolute worst shape possible for grilling. That moisture will evaporate right off, leaving you with a tough, stringy crust. Give it a bit more time, and eventually that brine will begin to break down some of the muscle tissue in the meat, allowing the juices to be re-absorbed, and taking the salt right along with it.What does this lead to? Meat that is both better seasoned and more tender and moist when you cook it.

## HOW SHOULD I ARRANGE THE COALS?

Direct Fires are constructed by laying out the coals in an even layer across the entire coal grate, or by turning on all of the burners to the same level on a gas burner. You can build hot or cool single layer fires depending on what you will be cookWing. These fires are best for relatively thin burgers, steaks, chops, or vegetables cut into planks in which the interior will cook through at the same rate that the exterior gets some nice browning on it.

Two zone direct fire in which two-thirds of the coals are laid out on one half of the grate, with the remaining third laid out over the rest. For a gas grill, turn half of the burners on high and the other half on low. This arrangement is great for thicker chops, steaks, or vegetables. Cooking over a two-level is a two-stage process that generally involves searing over high heat then transferring to the cooler side to cook through at a more gentle pace.

## COOK GENTILY AND TAKE YOUR TIME

In reality, the amount of juices a steak loses is directly proportional to the temperature you cook it to (note: not the temperature you cook it at). So why does a slow-start, sear-at-end roast lose less moisture? It has to do with the length of time it takes to build up a good, crusty sear. Throw a raw steak on the grill (or in a pan), and the cold, moist meat takes a long time to heat up to the point where it can begin browning and crisping properly. By the time it's well-seared, the outermost layers are already overcooked and you've lost the battle before you've even begun to cook the steak through to the center.

Start a steak out on the cold side of the grill with the cover on (other than when flipping, of course) on the other hand, and by the time it's reached within a few degrees of the proper final temperature (more on that in a moment), its exterior has already gotten a good head start on the browning and crisping phase.

All it takes is a moment on the hot side of the grill to crisp up. You end up with meat that is as crusty as you could hope for, and perfectly evenly cooked from edge to edge.

## FLIP IT AS OFTEN AS YOU WOULD LIKE

By flipping a steak multiple times—as often as once every 15 seconds or so—you not only end up with meat that's more evenly cooked, you also cut down on your cook time by as much as a third, and develop a great crust on top of that. This is because with multiple flips, neither side is exposed to intense heat for too long, nor does it lose much heat to the relatively cool air above. It's the equivalent of cooking it from both directions simultaneously.

That said, the difference in the end result is not too pronounced, so if you want to leave the steak alone and enjoy your beer, or if you feel the need to placate that annoying uncle who gets visibly angered by flippers, go ahead and use the one-flip method—it won't destroy your steak.

## FLIP IT AS OFTEN AS YOU WOULD LIKE

As the steak cooks, the muscle fibers on its exterior tighten, squeezing juices out of its surface. This creates an imbalance of juice in its interior, with most of the liquid being concentrated at the center of the meat. If you cut the steak open as soon as it comes off the grill, the juice has only one place to go—onto your plate. On the other hand, allow the steak to rest until its temperature has normalized, and the juices will distribute themselves more evenly throughout its interior. Cut the steak open, and the juice stays put exactly where it's supposed to be: in the meat.

# PAN SEARING

While grilling will get you a rapid-fire crust on your steak with all those delightfully crisp, on-the-verge-of-burnt bits and a good smoky flavor, I find that the even golden brown crust you can develop in a hot cast-iron pan really accentuates the flavor of the beef itself, letting it shine. On top of that, pan-searing affords you the opportunity to add your own flavorings in the form of aromatics. Pan-seared steaks come out about 4 percent moister to boot.

## CAST IRON PAN

A good cast iron pan is thick, heavy, and designed to hold on to heat for a long, long time. Once properly pre-heated (that is, smoking hot), a good cast iron pan will practically sear a steak on its own, even if you lift it off its heat source. Fast searing is essential if you want to build a thick brown crust without overcooking the interior.

## HOW SHOULD I START?

What's the best medium to sear in? Butter, or oil? Some claim that a mixture of both is best, often using the excuse that butter alone has too low a smoke point—it begins to burn and turn black at temperature too low to properly sear meat in. Somehow, cutting the butter with a bit of oil is supposed to raise this smoke point. Unfortunately, that's not true. It's because when we say that "butter is burnt," we're not really talking about the butter as a whole—we're talking specifically about the milk proteins in butter, the little white specks you see when you melt it. It's these milk proteins that burn when you get them too hot, and believe me, they couldn't care less whether they're being cooked in butterfat or in oil. Either way, they burn.

What all this means is that the best cooking medium for a steak is actually plain old oil. And make sure to use plenty of it so that your steak cooks nice and evenly. I like to use at least a quarter cup in a 12-inch skillet.

Adding butter to the pan a few minutes before it's done cooking is a fine idea. This is just enough time to allow the buttery flavor and texture (butter is creamier tasting than oil because it has a higher percentage of saturated fat) to coat the meat, but not so long that it will burn excessively, producing acrid undertones.

Because it adds proteins to the mix, butter is a better medium for adding deep brown color to your steak as well, which means that even if your steak is looking a little pale after its initial sear, once you add that butter, it'll rapidly take on color.

## BASTING AND FLIPPING

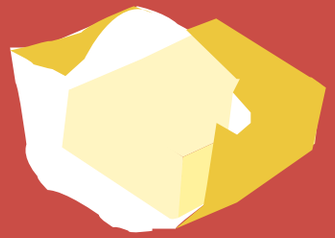
A combination of flipping and basting—that is, spooning hot fat over your meat—will help cook it more gently, and more importantly, from both sides simultaneously, drastically cutting down on its cooking time. A basted and flipped steak will hit its appropriate internal temperature a good 35 percent faster than a single-flip, no-baste steak. How's that for fast food?

Basting also performs one more important function: It's a perfect way to perform touch-up jobs on your crust. Remember those pale spots that appear around the bones when you try and sear a bone-in steak? Spoon hot melted butter over them, and they'll quickly color in.

The easiest way to baste is to tilt your pan slightly so that hot butter collects near the handle, then use a spoon to pour it over the top of the steak



Start in oil for a nice even sear.



Add butter close to the end for some help browning and added flavour

Dont forget your aromatics!

# KNOW WHEN ITS READY


## USE A THERMOMETER

I can't possibly emphasize this one enough. Use a thermometer! Use a thermometer! USE A THERMOMETER!

Yes, you may look a bit less macho when you whip out a nifty Thermapen Thermometer from your back pocket, swing out the slender probe and insert it gently into the very center of your steak to register a reading, but believe me: Perfectly cooked meat will earn you more praise and appreciation than macho posturing any day of the week.

I like my meat at around 130°F—the medium-rare point. Many folks like their meat rare, but to me, that's a waste of a good, well-marbled cut of beef. You want your fat to be warm enough that it starts melting a bit, lubricating your meat and adding flavor and juice to every bite. With meat that's too rare, your fat remains solid. You end up with all the calories and not nearly as much flavor.

On the opposite end of the spectrum with medium-well to well-done meat, not only have your juices been squeezed dry like water from a sponge, but your liquefied fat has already bought itself a one way ticket to the bottom of your grill.

Remember: Thick steaks will continue to rise in temperature after you pull them off of the grill. Heat from the exterior layers will travel in as your steak rests. Make sure to pull it off the grill a good five degrees before you reach your final target.

## IF YOU DONT HAVE ONE

Just go ahead and cut the sucker open to take a peek. Even slicing won't release too many juices.

I know that everyone tells you you shouldn't poke the meat lest you "risk losing valuable juices," but honestly, the loss is not much. Certainly not enough for you to notice once the steak is done. And given the alternative (overcooked meat that will have lost a noticeable amount of juice), it's the best alternative out there.

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