

# How to Tenderize Meat: 6 Easy Ways to Tame Those Tough Cuts

<http://www.sheknows.com/food-and-recipes/articles/1113383/how-to-tenderize-meat>

Nothing takes the wind out of your sails quite like biting into a hunk of steak only to find the sucker is chewy AF. Really, what's worse than tough meat?

It has happened to the best of us — and it's usually because we didn't splurge on that pricey cut (or sometimes it's because you went with a leaner organic cut, which can actually be more expensive). Either way, you don't have to suffer the tough consequences. There are methods for tenderizing your meat that don't even require an overnight marinade.

Here are six easy ways.

## 1. Beat it

Pounding meat with a mallet is a surprisingly effective way to tenderize it. The downside is that it can actually work too well, turning your meat into mush. Special tenderizer tools made up of dozens of sharp needles or points that pierce the meat are a more delicate way of mechanically tenderizing your meat. This does less damage to the meat fibers.

## 2. Marinate with acid

Acids can help break down tough meat. Soaking meat in a marinade made with lemon or lime juice, vinegar, buttermilk or [even yogurt](#) can help tenderize tough proteins. The key is to not leave the meat in the marinade for too long, as acids can weaken the protein structure of the meat too much, making it too soft and mushy. Aim for 30 minutes to two hours, but check periodically to see if the meat is starting to look cooked around the edges. That's how you'll know it's been marinating too long.

## 3. Marinate with enzymes

Several fruits, such as papaya, pineapple, kiwi and Asian pear, contain enzymes that help tenderize meat. Try puréeing these fruits and adding some of your favorite seasonings to make a marinade that will leave you with juicy, tender meat. Just don't leave any meat in pineapple too long. Bromelain, the powerful enzyme in this fruit, can work a little too well.

## 4. Salt it

Heavily salting a tough cut of meat and letting it sit an hour or two before you cook it is an effective way to break down tough muscle fibers, no fussy marinade needed. When you're ready to cook, just rinse off the salt, pat the meat dry and add it to a hot skillet.

## 5. Slice it right

There are a couple of clever knife tricks that can make meat seem more tender. One is scoring. That's when you make shallow cuts (not cutting all the way through) across the surface of a thin steak like skirt or flank. This method can help break up tough proteins and also helps the meat absorb tenderizing marinades more easily.

The second meat-tenderizing knife trick is slicing cooked steak thinly, *across the grain*. The idea is to break up the long, tough meat fibers so they are shorter and thus easier to chew.

## 6. Slow-cook it

Cooking tough cuts of meat with low-temperature heat over a long period of time is a great way to tenderize it. Tough fibers, collagen and connective tissues will break down, leaving you with tender meat. Try using a slow cooker, or braise with broth or other liquids in a covered dish in the oven.

# 10 Ways to Make Cheap Steak Tender and Delicious

Common marinade ingredients, such as wine, ginger, lemon juice, and kosher salt, actually have double purposes. Not only do they add flavor, but they help to break down the meat and make it wonderfully juicy and tender. Kiwi, pineapple, and papaya are all great sources of proteolytic enzymes (enzymes that break down proteins) and add a sweet note to your smoky grilled meats.

Acidic ingredients have a similar effect on the texture of meat. Acids help to weaken the tough muscle fibers, so lemon, lime, and orange juices not only add some freshness to your red meat, but they help make it an incredible bite. Just be sure your marinade is balanced; adding too much acid can have the opposite effect and toughen the steak.

## Beer

Try marinating your steak in beer for an hour or more before grilling. Not only does a good brew add a beautiful flavor to the meat, but beer's natural alpha acids and tannins are tenderizing superheroes.

## Coffee

Coffee isn't just for the mornings! Brewing a strong pot of coffee (and chilling it) creates a natural tenderizer. Similarly, a coffee rub helps to break down the meat and add a beautiful, rich flavor to your steak.

## Ginger

Ginger is not just a source of a sweet, delicious flavor in your steak marinades. It's also a secret source of proteolytic enzymes, which help to break down any protein.

## Kosher Salt

Massaging any steak with coarse kosher salt about 45 minutes before you grill it is a guaranteed way to bring out its natural juices and tenderness. The juices will dissolve the salt, creating a natural brine.

## Lemon or Lime Juice

Acid is a must-have for tenderizing steak, so citrus always does the trick. Plus, some freshly-squeezed lemon or lime juice can add a brightness to your meat that's perfect for grilling season.

## Orange Juice

Like lemons and limes, oranges are highly acidic, making them a great meat tenderizer. Just be sure you don't add too much or your marinade could actually toughen the meat.

## Pineapple Juice

Pineapple juice isn't just for marinating pork or seafood; it works great on steak, too. The juice will lend a certain unique sweetness to the meat and the **naturally-occurring bromelain** will help break down the steak's collagen.

## Soda

It doesn't matter if you're a Coke or Pepsi fan — either soda will do. The acid in the cola will help tenderize the meat, and the sugar will add a natural sweetness to your marinade.

## Tea

If you're more a fan of tea than coffee, this delicate beverage will work just as well for steak. Tea is packed with tenderizing tannins. Adding some strongly brewed tea will bring an earthy flavor to your steak and give it a beautiful tender texture.

# What's the Best Way to Make Steak Tender?

[thedailymeal.com/eat/whats-best-way-make-steak-tender](http://thedailymeal.com/eat/whats-best-way-make-steak-tender)

The tenderest cuts of steak, like filet mignon, also happen to be well beyond the price range of the average diner. If you're planning on cooking a tough cut like sirloin or top round, there are a few things you can do to help break down the connective tissue in the meat before you start cooking it. **One**, you can use a device called a **meat tenderizer**, which is basically a dozen or so tiny knives that poke holes into the steak and help to break up the tough muscle fiber network. **Two**, you can pound it thin using a mallet. **Three**, you can take the enzyme or acid route.

Certain enzymes break down protein and collagen in meat without compromising the muscle fibers. These are found in fruits like kiwi, papaya, and pineapple; those "meat tenderizer" powders you find in the supermarket usually contain one or more of these fruit-based enzymes. A marinade with the right amount of acid (usually from vinegar) can also tenderize a steak, but don't go overboard: Too much acid and it'll become even tougher.

## Marinades Add Flavor but Don't Always Tenderize

When you marinate meat or fish, the result depends on the composition of the marinade

by Shirley Corriher • Fine Cooking Issue 34 • [finecooking.com](http://finecooking.com)

There is a commonly held belief that soaking a tough cut of meat in a marinade will make it tender. Sadly, this just isn't true much of the time. While some marinades are very successful at adding flavor to meat, chicken, and fish, they are, with one exception, a disaster at tenderizing.

The two most popular types of marinades are acidic (made with citrus, vinegar, or wine) and enzymatic (made with ingredients such as pineapple and papaya). Although both types work primarily on the surface of the food, they lead to different results: highly acidic marinades can actually toughen food, while enzymatic marinades can turn the surface of the food to mush. For true tenderizing, the most effective marinades are those that contain dairy products.

### Acidic marinades add flavor but may toughen

One marinade family relies on mildly acidic ingredients, like citrus juice, vinegar, or wine.

**Acidic marinades "denature" proteins.** Imagine the protein in raw meat, chicken, or fish as individual units of coiled ribbon, with bonds holding each coil in a tight bundle. When these proteins are exposed to an acidic marinade, the bonds break and the proteins unwind. Almost immediately, one unwound protein runs into another unwound protein and they bond together into a loose mesh. (This is the same thing that happens when proteins are exposed to heat.)

At first, water molecules are attached to and trapped within this protein mesh, so the tissue remains juicy and tender. But after a short time, if the protein is in a very acidic marinade, the protein bonds tighten, water is squeezed out, and the tissue becomes tough. If you've ever tried marinating shrimp in highly acidic ingredients, it's likely that you're familiar with this result.

**In limited cases, mildly acidic marinades can add wonderful flavor to fish and meat**, especially if you enhance the mixture with fresh herbs, spices, or perhaps another liquid like Worcestershire sauce. The key is to use the correct strength acid for the food you're marinating. For shrimp, I use a low-acid marinade (perhaps one part mild acid to four parts oil) to avoid toughness. For example, I might use two tablespoons each of vinegar and caper juice and one cup of oil. A fairly tight-textured cut of meat like flank steak can survive a more acidic marinade. Since the marinade only penetrates a fraction of an inch, it won't toughen the meat.

## Enzymes make meat mushy

Another approach is to use enzymatic marinades, which work by breaking down muscle fiber and collagen (connective tissue). Raw pineapple, figs, papaya, honeydew melon, ginger, and kiwi all contain such enzymes, known collectively as proteases (protein enzymes). Unfortunately, these enzymes work almost too well, turning tough meat muscle into mush without passing through any intermediate stage of tenderness. The longer the meat marinates, the greater the breakdown of proteins and the mushier the texture.

My experience with tenderizing enzymes mirrors that of Dr. Nicholas Kurti, a famous Oxford physicist who tried tenderizing a pork roast by injecting half with pineapple juice, leaving the other half untouched. A noted chef, Michel Roux, was to judge on television which side was better. After cooking, the half treated with pineapple was total mush and looked like a pile of stuffing. Not surprisingly, Chef Roux preferred the untreated half. (He did try to find something nice to say about the mushy half. Noticing its crisp skin, Chef Roux announced, "But the crackling is superb!" Dr. Kurti used the comment as the title for his book on his experiments with tenderizing enzymes.)

Most commercial meat tenderizers rely on enzymes to do their "tenderizing" (a papaya enzyme, papain, is a common ingredient in these products), so I stay away from them.

## For true tenderizing, use buttermilk or yogurt

Dairy products are, in my opinion, the only marinades that truly tenderize. Hunters have long known to marinate tough game in milk, Indian recipes use yogurt marinades for lamb and tough goat meat, and some southern cooks soak chicken in buttermilk before frying. Buttermilk and yogurt are only mildly acidic, so they don't toughen the way strongly acidic marinades do. It's not quite clear how the tenderizing occurs, but it seems that calcium in dairy products activates enzymes in meat that break down proteins, a process similar to the way that aging tenderizes meat.

In deciding how long to marinate, consider the texture of the meat or fish. In general, open-textured flesh like fish fillets needs only a few minutes of soaking. I love making "fish fingers" by briefly immersing strips of fish fillets in buttermilk seasoned with cayenne, dusting them with seasoned flour, and then frying them. Food with a tighter texture, such as chicken or lamb, can tolerate several hours in a marinade, even one that's mildly acidic.

## here is one... **Tenderizing Marinade Recipe**

geniuskitchen.com – has great ABOUT pages on ingredients

### Ingredients

- $\frac{1}{3}$  cup soy sauce
- $\frac{1}{4}$  cup red wine vinegar or  $\frac{1}{4}$  cup cider vinegar
- $\frac{3}{4}$  cup olive oil or  $\frac{3}{4}$  cup vegetable oil
- 2 -3 tablespoons fresh minced garlic
- 1 teaspoon black pepper
- $\frac{1}{2}$  teaspoon ginger powder (if you prefer a stronger ginger flavor then add in more)
- 4 tablespoons liquid honey (or 4 tablespoons maple syrup, DO NOT substitute brown sugar or white sugar or pancake syrup)
- 3 tablespoons Worcestershire sauce
- 2 teaspoons powdered meat tenderizer (optional)

### Directions

1. In a large bowl combine all ingredients except the meat; mix/whisk until very well combined.
2. You may now transfer the marinade to a large resealable plastic bag if desired or leave in a large bowl.
3. Pierce the meat all over with a fork.
4. Add the meat to the marinade then turn to coat.
5. Refrigerate for at least 8 hours or overnight.
6. Remove meat and discard the marinade.
7. Leave the beef or the pork sit out on the counter and bring almost room temperature, this will relax the meat fibers and make for a more tender juicy steak or cut of beef or pork (this is a very important step!).
8. Grill or oven-broil to desired doneness.