How Red Do You Like Your Meat?

If you’ve been listening to the news recently you’ve probably heard some of the discussion about the use of carbon monoxide in packages of fresh beef. Some people think it’s just terrible, other people really want meat to look red when they buy it, and others don’t care either way. What’s the science behind all the fuss?

When freshly slaughtered beef is cut, the meat is naturally almost purple in color. We rarely see such fresh meat, and we don’t expect to buy a purple steak. As soon as oxygen hits the fresh meat, it starts to turn bright red. That’s the color we like to see when we buy a steak in the grocery.

The plastic wrap used on fresh meat is specially designed to allow just enough air into the package to keep the beef red. Not a lot of air is allowed in because that would let bacteria grow. We want to keep most of the oxygen out to stop bacteria.

However, even with careful packaging the red color doesn’t always last long. Depending on how much exercise the animal had, or how stressed it was, what it was eating, and even on the genes it had, some beef turns brown very fast. There’s no way to look at a steer and tell if that beef will turn brown or stay red.

But in the store, beef that turns brown stays in the meat case. Customers think that only red meat is fresh meat. Beef that is not bought becomes a cost to the grocery store. Of course they pass the costs on to us, so we have to pay more the next time we buy beef. Years and years ago it might have been true that brown meat was always old. Today distributors do their best to make sure that meat is kept cold and delivered
promptly, so that we customers can pick up a fresh steak any day we want.

One way to keep fresh beef from turning brown before it’s cooked is to put a little bit of carbon monoxide in the package. This way the bright red color stays red for at least several more days, long enough for us to buy it.

The complaint is that using carbon monoxide is a nasty trick, that it makes something old look fresh. That’s not really true. Even fresh meat can look old when it turns brown so fast. Carbon monoxide also helps prevent bacteria from growing, so it stays fresher. The same method is used in the bags of precut salad mixes, in potato chips and pretzels, shredded cheese and coffee. By taking out some oxygen and putting something else in, the food stays safe and fresh a lot longer.

The truth is that color is not usually a good indication of the freshness of many foods. The best ways to tell if meat is fresh is to look at how tight the package is. If there are bacteria growing inside they will make the plastic wrap puff up. Don’t buy any packages that are swollen or puffy.

When you open the package at home, pay attention to the smell. If it smells sour or has any kind of odor different from the usual mild smell, don’t use it. Then touch it. If the meat feels slimy or sticky, don’t use it. Next, poke it hard with your finger. If a dent remains where you poked it, it’s not fresh. Don’t use it. Color is not a reliable way to determine freshness.

Finally, be sure you cook that meat safely. Color is not a good indicator of how well the meat is cooked either. Burgers can be brown the whole way through and still not be hot enough to kill bacteria. Burgers can also be plenty hot and still be pink inside. Get and use a meat thermometer. Steaks and roasts need to reach 145º F while burgers have to get to 160º F.
Here's a great sweet and sour salsa to serve beside the steak or burger, made with Florida's own Key Limes. If you don't have Key limes, use 4 teaspoons of lime juice, but don't expect quite the same flavor.

Flavorful Key Lime Salsa

4 medium ripe tomatoes
1 Tbsp chopped fresh cilantro leaves
½ tsp sugar
½ tsp freshly ground black pepper
Juice of 2 Key Limes

1 fresh jalapeño pepper
1 medium red onion, minced
½ tsp salt (or to taste)

Peel, seed and dice the tomatoes. Seed and mince the pepper (use gloves and don't touch your face.) Combine all ingredients in a medium glass bowl. Cover and refrigerate for 4-5 hours before serving. Serves 4 for dips or on burgers.

(With permission from Key Lime Cookin’, by Joyce LaFray)