

Frequently Asked Questions about the Retail Meat Case, Part 2: Basic Meats 101

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The average American will eat more than 200 pounds of meat this year. Currently, about 50% of meals are eaten at home, and Americans will spend approximately 13% of their income on food. Today the American consumer has more money to spend on the widest variety of foods than at any other time in our history. Meat remains the centerpiece of the plate, but consumers still have questions about cooking, quality, and food safety. Below are answers to some of the most frequently asked questions about the products in the grocery store meat case.

Q. What is the best way to keep my family safe from food poisoning?

Bacteria, molds, and fungus microorganisms are everywhere in our environment—on animals and even on our bodies. Most microbes are harmless or even beneficial, but some can cause illness when ingested in high concentrations. Microorganisms that are harmful to human health are referred to as pathogens, and their threat should be respected at all times. The U.S. meat and food supply is the safest in the world, and the meats industry constantly tests for certain types of pathogenic bacteria. However, contamination can and does occur.

Cooking or heating food products above 160°F will destroy the vast majority of bacteria. The bulk of our cooking surfaces are heated above 300°F, which is more than enough heat to destroy pathogenic bacteria. Avoid cross-contamina-

tion of uncooked meats and poultry with cooked or ready-to-eat foods, such as breads, salads, etc. After handling fresh, uncooked meats and poultry, thoroughly clean the preparation area. Never re-use a cutting board or utensils until they have been cleaned with hot, soapy water, and thoroughly wash your hands before handling cooked or ready-to-eat foods. Finally, refrigerate foods within two hours of serving, and keep hot foods hot and cold foods cold.

Q. What is the best way to thaw frozen meat?

A common way to thaw frozen meat is to set it out on the kitchen counter or in the sink at room temperature. Although this is one of the fastest ways to thaw meat, it can be unsafe. The meats industry strives to process meat in a sanitary environment, but contamination with bacteria can occur. Freezing will not destroy bacteria, and, if present, bacteria will become active as the meat thaws to room temperature. Therefore, meat thawed at room temperature can contain a large number of bacteria. It is true that bacteria will be destroyed upon cooking; however, there is a greater chance of cross-contamination with any food that piece of meat came in contact with.

Plan meals a day ahead and thaw meat in the refrigerator. It will take longer, but the meat will stay refrigerated, thus slowing or inhibiting the growth of bacteria. In fact, thawing meat in the refrigerator will also help maintain the quality. Rapid

thawing can cause a greater amount of water loss, creating a drier, tougher product. Furthermore, frozen meat can be thawed in the microwave as long as it is cooked shortly after being taken out of the microwave.

Below is a recommended storage chart for freezing meat:

Meat	Recommended Time in Freezer at 0°F
Beef cuts	6 to 12 months
Veal cuts	6 to 9 months
Pork cuts	6 months
Lamb cuts	6 to 9 months
Poultry cuts	3 to 6 months
Ground beef (hamburger)	3 to 4 months
Luncheon meats	1 to 2 months
Smoked meats	1 to 2 months
Frankfurters, wieners, hot dogs	1 to 2 months
Bacon, whole smoked ham, smoked ham slices	1 to 2 months

The plastic overwrap that meat is packaged in is oxygen permeable and is not ideal for freezer storage. Oxygen will penetrate the package and can contribute to freezer burn. A dehydrated, ice crystal-covered surface is characteristic of freezer-burnt meats, which will develop an off-flavor upon cooking. In addition, freezer paper is not ideal for long-term freezer storage, as it too will allow air to enter the package. Repackage meats in self-closing plastic bags. Try to remove as much air as possible to reduce the risk of freezer burn.

Q. Is it safe to eat a steak that is cooked to rare or medium rare?

Most consumers fear possible bacterial contamination in steaks cooked to a lower degree of doneness. Cooking is the best way to destroy bacteria, which do not have the ability to bore to the center of whole muscle meat cuts and only live on the surface. The vast majority of bacteria on the surface of whole muscle meat cuts will be destroyed at 160°F, and most cooking surfaces are heated to over 300°F.

Ground beef, pork, lamb, etc., have a greater surface area and should not be cooked to a rare (140°F internal temperature) or medium rare (150°F internal temperature) degree of doneness. Each strand of ground product has a surface area; thus, those strands in the middle can harbor pathogenic bacteria. It is recommended that ground meats be cooked to an internal temperature of at least 160°F (a medium degree of doneness).

Whole muscle cuts such as steaks, chops, slices, and roasts can be cooked to a very rare, rare, or medium rare degree of doneness and still be safe for human consumption.

Q. I heard that eating meat is not healthy.

Meat easily fits into a healthy diet. Meat contains all the essential amino acids and meat proteins, which are 95 to 100% digestible, whereas plant proteins are only 65 to 70% digestible. Although meat does contain saturated fats, each livestock commodity offers lean cuts that are low in fat and saturated fats. Furthermore, meat is a good source of vitamins and minerals and remains the only natural source for certain B vitamins. Iron in meat is four times more absorbable than iron from other food sources, including spinach. Also, meat supplies 40% of your

daily requirement of zinc. The consumption of meat is vital for cognitive development of children and young adults and does fit into a healthy lifestyle. Whether it is meats, fruits, or vegetables, moderation should be practiced, and exercise should always be part of a healthy lifestyle.

Q. What is the red sticky fluid in the bottom of a meat package?

The common wrong answer to this question is blood. The red, sticky fluid in the bottom of the package is called purge and consists mainly of water mixed with some myoglobin, the protein that binds oxygen and is responsible for meat color. The approximate composition of meat is 70% water, 8% fat, 20% protein, and 2% ash (vitamins and minerals). Once a piece of meat is cut, it starts to lose water. Retail grocery stores control this problem by placing a soaker pad in the bottom of the package.

Q. Why does my package of chicken breast or pork chops say “enhanced with a solution of sodium phosphate”?

This is a common statement on packages of chicken breast and retail pork cuts. Raw meat contains approximately 70% water, some of which evaporates during cooking. The average American tends to overcook chicken and pork cuts out of fear of possible bacterial contamination. Overcooking will cause meat cuts to be tough and dry, as well as reduce overall palatability. To combat the problem of overcooking, some meat processors are injecting retail cuts of chicken, pork, and sometimes beef with a solution of sodium phosphate and water at 10 to 15% of the original weight. This will put more water into the meat, which will help maintain juiciness and palatability if the cut is overcooked.

Q. What is the difference between natural and organic meats?

Americans have a wide variety of food choices, as mentioned before. The important thing to remember is that all foods, including meats, are safe and nutritious regardless of the way the product was grown or raised. Furthermore, livestock producers and meat processors strive to treat animals humanely.

The USDA defines “natural” as products that do not contain any artificial ingredients or are minimally processed, such as those that are smoked, roasted, frozen, or ground. Technically, all fresh meat products fit into this category. Although the USDA does not have a strict definition of natural yet, it is recognized that natural meats are from animals that have not been fed antibiotics or given synthetic growth promotants. Conventionally raised animals are sometimes fed subtherapeutic levels of antibiotics to keep them healthy or given growth promotants to help them reach market weight faster. Faster-growing animals have less overhead and therefore produce more affordable meat products.

Organic meats are from animals that were raised by strict organic guidelines and practices. Organic farmers must keep meticulous records and periodically undergo third-party inspections to ensure that they are following organic guidelines. Organic livestock must be fed 100% organic grain and/or forage and cannot be given synthetic growth promotants or vaccines. In addition, pastures cannot be fertilized with synthetic fertilizers or sewage sludge. These are just a few of the guidelines that organic farmers must follow to become certified organic. These specialty meat products demand a higher retail price to recover the high costs of raising these animals.