



Questions and Answers about Ground Beef and E-Coli

**From the Branch-Hillsdale-St. Joseph Community Health Agency
Division of Environmental Health**

Is ground beef inspected and graded?

All meat transported and sold in interstate commerce must be federally inspected. The larger cuts are usually shipped to local stores where they are ground. For meat being transported and sold within a state, state inspection would apply.

Grades are assigned as a standard of quality only. It is voluntary for a company to hire a Federal inspector to certify the quality of its product. Most ground beef is not graded.

From what cuts of beef are ground beef and hamburger made?

Generally, ground beef is made from the less tender and less popular cuts of beef. Trimmings from more tender cuts may also be used. Grinding tenderizes the meat and the fat reduces its dryness and improves flavor.

What is the significance of the "Sell-By" date on the package?

"Sell-By" dates are a guide for retailers. Although many products bear "Sell-By" dates, product dating is not a Federal requirement. While these dates are helpful to the retailer, they are reliable only if the food has been kept at proper temperature during storage and handling. USDA suggests that consumers cook or freeze ground beef within 2 days after purchase for maximum quality.

What kind of bacteria can be in ground beef? Are they dangerous?

Bacteria are everywhere in our environment. Any food of animal origin can harbor bacteria. **Bacteria**, such as *Salmonella*, *E. coli* and others, cause illness. These harmful bacteria can not be seen or smelled. When meat is ground, more of the meat is exposed to the harmful bacteria. Bacteria multiply rapidly in the "Danger Zone" — temperatures between 41 and 135 °F. To keep bacterial levels low, store ground beef at 41 °F or less and use within 2 days, or freeze. To destroy harmful bacteria, cook ground beef to 160 °F.

Why is the *E. coli* bacterium of special concern in ground beef?

E. coli can colonize in the intestines of animals, which could contaminate muscle meat at slaughter. *E. coli* survive refrigerator and freezer temperatures. Once they get in food, they can multiply very slowly at temperatures as low as 44 °F.

Illnesses caused by *E. coli* have been linked with the consumption of undercooked ground beef. Raw milk, apple cider, dry cured sausage, and undercooked roast beef have also been implicated.

Can bacteria spread from one surface to another?

Yes. Bacteria in raw meat juices can contaminate foods that have been cooked safely or raw foods that won't be cooked, such as salad ingredients. Bacteria can also be present on equipment, hands, and even in the air.

To avoid cross-contamination, wash your hands with soap and warm water before and after handling ground beef, or any raw meat for that matter, to make sure you don't spread bacteria. Don't reuse any packaging materials. Use soap and hot water to wash utensils and surfaces which have come into contact with the raw meat. **Don't put cooked hamburgers on the same platter that held the raw patties.**

How should raw ground beef be stored at home?

Refrigerate or freeze ground beef as soon as possible after purchase. This preserves freshness and slows growth of bacteria. It can be refrigerated or frozen in its original packaging if the meat will be used soon. If refrigerated, keep at 41 °F or below and use within 1 or 2 days.

For longer freezer storage, wrap in heavy duty plastic wrap, aluminum foil, freezer paper, or plastic bags made for freezing. Ground beef is safe indefinitely if kept frozen, but will lose quality over time. It is best if used within 4 months. Mark your packages with the date they were placed in the freezer so you can keep track of storage times.

What is the best way to thaw ground beef?

The best way to safely thaw ground beef is in the refrigerator. Keeping meat cold while it is defrosting is essential to prevent growth of bacteria. Cook or refreeze it within 1 or 2 days. To defrost ground beef more rapidly, you can defrost in the microwave oven or in cold water. If using the microwave, cook the ground beef immediately because some areas may begin to cook during the defrosting. To defrost in cold water, put the meat in a watertight plastic bag and submerge. Change the water every 30 minutes. Cook immediately. Do not refreeze ground meat thawed in cold water or in the microwave oven.

Never leave ground beef or any perishable food out at room temperature for more than 2 hours.

Is it dangerous to eat raw or undercooked ground beef?

Yes. Raw and undercooked meat may contain harmful bacteria. USDA recommends not eating or tasting raw or undercooked ground beef. To be sure all bacteria are destroyed, cook meat loaf, meatballs, casseroles, and hamburgers to 160 °F. Use a food thermometer to check that they have reached a safe internal temperature.

Is microwaving hamburgers safe?

Yes, if cooked properly to destroy harmful bacteria. Since microwaves may not cook food as evenly as conventional methods, covering hamburgers while cooking will help them heat more evenly. Turn each patty over and rotate midway through cooking. Allow patties to stand 1 or 2 minutes to complete cooking. Then use a food thermometer to check that the internal temperature is 160 °F.

Is it safe to partially cook ground beef to use later?

No. Partial cooking of food ahead of time allows harmful bacteria to survive and multiply. Also some bacteria produce toxins which cannot be removed with cooking.

Can I refrigerate or freeze leftover cooked hamburgers? How should they be reheated?

If ground beef is refrigerated promptly after cooking (within 2 hours; 1 hour if the temperature is above 90 °F), it can be safely refrigerated for about 3 or 4 days. If frozen, it should keep its quality for about 4 months.

When reheating fully cooked patties or casseroles containing ground beef, be sure the internal temperature reaches 165 °F or it is hot and steaming.

For more information about e-coli, proper food handling and a variety of other environmental health concerns, visit us on the web at:

www.bhsj.org

Or call your local Health Department office at:

Coldwater
279-9561 x 106

Hillsdale
437-7395 x 111

St. Joseph County
269-273-2161 x 233