United States Department of Agriculture
Food Safety and Inspection Service

Food Safety Information



"The Big Thaw - Safe Defrosting Methods — for Consumers"

Uh, oh! You're home and forgot to thaw something for dinner. You grab a package of meat or chicken and use hot water to thaw it fast. But is this safe? What if you remembered to take food out of the freezer, but forgot and left the package on the counter all day while you were at work?

Neither of these situations is considered safe, and these methods of thawing may lead to foodborne illness. Raw or cooked meat, poultry or egg products, as any perishable foods, must be kept at a safe temperature during "the big thaw." They are safe indefinitely while frozen. However, as soon as they begin to thaw and become warmer than 40 °F, bacteria that may have been present before freezing can begin to multiply.

Perishable foods should never be thawed on the counter, or in hot water and must not be left at room temperature for more than two hours.

Even though the center of the package may still be frozen as it thaws on the counter, the outer layer of the food could be in the "Danger Zone," between 40 and 140 °F – temperatures where bacteria multiply rapidly.

When thawing frozen food, it's best to plan ahead and thaw in the refrigerator where it will remain at a safe, constant temperature – at 40 °F or below.

There are three safe ways to thaw food: in the refrigerator, in cold water, and in the microwave.

Refrigerator Thawing

Planning ahead is the key to this method because of the lengthy time involved. A large frozen item like a turkey requires at least a day (24 hours) for every 5 pounds of weight. Even small amounts of frozen food — such as a pound of ground meat or boneless chicken breasts — require a full day to thaw. When thawing foods in the refrigerator, there are variables to take into account.

- Some areas of the appliance may keep food colder than other areas.
- Food will take longer to thaw in a refrigerator set at 35 ºF than one set at 40 ºF.

After thawing in the refrigerator, items such as ground meat, stew meat, poultry, seafood, should remain safe and good quality for an additional day or two before cooking; red meat cuts (such as beef, pork or lamb roasts, chops and steaks) 3 to 5 days. Food thawed in the refrigerator can be refrozen without cooking, although there may be some loss of quality.

Cold Water Thawing

This method is faster than refrigerator thawing but requires more attention. The food must be in a leak-proof package or plastic bag. If the bag leaks, bacteria from the air or surrounding environment could be introduced into the food. Also, the meat tissue may absorb water, resulting in a watery product.

The bag should be submerged in cold tap water, changing the water every 30 minutes so it continues to thaw. Small packages of meat, poultry or seafood – about a pound – may thaw in an hour or less. A 3- to 4-pound package may take 2 to 3 hours. For whole turkeys, estimate about 30 minutes per pound. If thawed completely, the food must be cooked immediately.

Foods thawed by the cold water method should be cooked before refreezing.

Microwave Thawing

When thawing food in a microwave, plan to cook it immediately after thawing because some areas of the food may become warm and begin to cook during the thawing process (bringing the food to "Danger Zone" temperatures). Holding partially cooked food is not recommended because any bacteria present wouldn't have been destroyed and, indeed, the food may have reached optimal temperatures for bacteria to grow.

The Food Safety and Inspection Service (FSIS) is the public health agency in the U.S. Department of Agriculture responsible for ensuring that the nation's commercial supply of meat, poultry, and egg products is safe, wholesome, and correctly labeled and packaged.

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USDA Meat & Poultry Hotline
1-888-MPHotline
(888-674-6854)

After thawing in the microwave, always cook immediately after, whether microwave cooking, by conventional oven, or grilling.

Foods thawed in the microwave should be cooked before refreezing.

Also, never thaw foods in a garage, basement, car, dishwasher or plastic garbage bag; out on the kitchen counter, outdoors or on the porch. These methods can leave your foods unsafe to eat.

Cooking Without Thawing

When there is not enough time to thaw frozen foods, or you're simply in a hurry, just remember: it is safe to cook foods from the frozen state. The cooking will take approximately 50% longer than the recommended time for fully thawed or fresh meat and poultry.

See also "Turkey Basics: Safe Thawing" at: http://www.fsis.usda.gov/fact_sheets/Turkey_Basics_Safe_Thawing/index.asp

Food Safety Questions?

Call the USDA Meat & Poultry Hotline

If you have a question about meat, poultry or egg products, call the USDA Meat and Poultry Hotline toll free at **1-888-MPHotline** or **1-888-674-6854**, TTY: 1-800-256-7072.



The hotline is open year-round Monday through Friday from 10 a.m. to 4 p.m. EST (English or Spanish). Listen to timely recorded food safety messages at the same number 24 hours a day. Check out the FSIS Web site at **www.fsis.usda.gov.**

Send e-mail questions to **MPHotline.fsis@usda.gov**

Ask Karen!

FSIS' automated response system can provide food safety information 24/7 and a live chat during Hotline hours.



AskKaren.gov

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