



The Big Thaw: Safe Defrosting Methods for Consumers

Uh, oh! You're home and forgot to defrost 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 are safe, and these methods of thawing lead to foodborne illness. Food must be kept at a safe temperature during "the big thaw." Foods are safe indefinitely while frozen. However, as soon as food begins to defrost and become warmer than 40 °F, any bacteria that may have been present before freezing can begin to multiply.

Foods should never be thawed or even stored on the counter, or defrosted in hot water. Food left above 40 °F (unrefrigerated) is not at a safe temperature.

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

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

There are three safe ways to defrost 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 several variables to take into account.

- Some areas of an appliance may keep the food colder than other areas. Food placed in the coldest part will require longer defrosting time.
- Food takes longer to thaw in a refrigerator set at 35 °F than one set at 40 °F.

After thawing in the refrigerator, ground meat and poultry should remain useable for an additional day or two before cooking; red meat, 3 to 5 days. Foods defrosted 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, meat tissue can also absorb water like a sponge, resulting in a watery product.

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The bag should be submerged in cold tap water, changing the water every 30 minutes so it continues to thaw. Small packages of meat or poultry - about a pound - may defrost 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 microwave defrosting food, plan to cook it immediately after thawing because some areas of the food may become warm and begin to cook during microwave defrosting. Holding partially cooked food is not recommended because any bacteria present wouldn't have been destroyed and, indeed, may have reached optimal temperatures for bacteria to grow.

Foods thawed in the microwave should be cooked before refreezing.

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



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