

# FOOD FOR THOUGHT

Winter 2017 (Dec/Jan/Feb)

## Clostridium Perfringens

*Clostridium perfringens* (*C. perfringens*) is one of the most common causes of food poisoning in the United States. According to some estimates, this type of bacteria causes nearly a million illnesses each year. *C. perfringens* infections often occur when foods are prepared in large quantities and are then kept warm for a long time before serving. That's why outbreaks of these infections are usually linked to institutions (such as hospitals, school cafeterias, prisons, and nursing homes) or events with catered food.

Cooking kills the growing *C. perfringens* cells that cause food poisoning but not necessarily the spores that can grow into new cells. If cooked food is not promptly served or refrigerated, the spores can grow and produce new cells. These bacteria thrive between 40-140°F (the "Danger Zone"). This means that they grow quickly at room temperature, but they cannot grow at refrigerator or freezer temperatures.

Source: <https://www.foodsafety.gov/poisoning/causes/bacteriaviruses/cperfringens/index.html>

<b>Sources</b>	<ul style="list-style-type: none"><li>• Beef</li><li>• Poultry</li><li>• Gravies</li></ul>
<b>Incubation Period</b>	6-24 hours
<b>Symptoms</b>	Diarrhea and abdominal cramps (not fever or vomiting)
<b>Duration of Illness</b>	24 hours or less In severe cases, symptoms may last for 1-2 weeks.
<b>Who's at Risk?</b>	<ul style="list-style-type: none"><li>• Older adults</li><li>• Infants and young children</li></ul>
<b>What Do I Do?</b>	Drink plenty of fluids and get rest. If you cannot drink enough fluids to prevent dehydration, call your doctor.
<b>How Do I Prevent It?</b>	<ul style="list-style-type: none"><li>• Thoroughly cook foods, particularly meat, poultry, and gravies, to a safe internal temperature.</li><li>• Use a food thermometer</li><li>• Keep food hot after cooking (at 140° F or above)</li><li>• Microwave reheated food thoroughly (to 165°F or above)</li><li>• Refrigerate perishable foods within two hours (at 40°F or below)</li><li>• Divide leftovers into shallow containers and refrigerate immediately. Do not let them cool on the counter.</li></ul>

# YOUR MAP TO A FOOD-SAFE HOLIDAY

Follow some simple food safety advice to keep you and your guests feeling festive this winter.

## PROPER PREPPING

Just as you have a procedure for storing your holiday gifts when you get home, you should have a system for storing your food.

Make sure your fridge is set at or below

**40 °F**

Chill perishable groceries within two hours of shopping

Store raw meats in a container or dish to prevent leaking and set below ready-to-eat foods.

Be sure to separate raw meat from ready-to-eat foods and dishes.

Wash your hands for **20 SECONDS**

with warm water and soap!

**Don't forget:** You need two thermometers.

38.7°F

One for the fridge to ensure food is stored at 40 °F.

One for food, particularly meat, to ensure it's cooked to the right temperature.

## WELCOME TO Roastville

Always use a food thermometer to check that different holiday meats have been cooked to the right internal temperature.

GROUND BEEF 160 °F

VEAL\* 145 °F

DUCK 165 °F

PORK\* 145 °F

TURKEY 165 °F

LAMB\* 145 °F

GOOSE 165 °F

STEAK\* 145 °F

**YIELD**

\*Don't forget resting time! Beef, veal, lamb, and pork should rest for **3 MINUTES** before carving or consuming.

## HITTING THE ROAD

If you're bringing a dish to a get-together with coworkers, family or friends this holiday season, make sure you are transporting food safely.

## DANGER ZONE

**DO NOT ENTER**

Perishable food kept in the Danger Zone (between 40 - 140 °F) for longer than 2 hours should be thrown out.



### KEEP COLD FOOD COLD

When transporting cold dishes, place items in a cooler with ice or gel packs to keep food at or below

**40 °F**

### KEEP HOT FOOD HOT

Keep hot foods at or above

**140 °F**

by wrapping dishes in insulation bags or towels and newspaper.

### EXCEPTIONS

to Danger Zone include ready-to-eat items like



For more food safety tips, go to [FoodSafety.gov](http://FoodSafety.gov)

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## COOLING FOODS SAFELY & PROPERLY

According to the Centers for Disease Control and Prevention (CDC), in 2011 there were approximately 48 million people (1 in 6) who got sick from foodborne illnesses, 128,000 hospitalizations and 3,000 deaths. Foodborne illnesses are 100% preventable, and one way to prevent foodborne illnesses is to properly cool down foods.

The goal of the cool down process is to get the food from 135°F to 41°F as fast as possible. The New Jersey State Administrative Code, N.J.A.C. 8:24-3.5(d) 1, "Sanitation in Retail Food Establishments and Food and Beverage Vending Machines", states that **foods that are cooked shall be cooled within 2 hours from 135°F to 70°F and you then have 4 hours to get it from 70°F to 41°F.**

Cooling can be completed by using one or more of the following methods:

- Placing foods in shallow pans
- Separating the food into smaller or thinner portions
- Using rapid cooling equipment (i.e. blast chiller)
- Stirring the food in a container placed in an ice water bath
- Using containers that facilitate heat transfer (i.e. ice wands)
- Adding ice as an ingredient; or other effective methods.



When storing food in a refrigerator or using a cold holding unit for cooling, you have to consider a few things:

- Make sure that the food is arranged in a way that there will be maximum heat transfer. For instance, stacking containers or covering them will not allow the heat to escape.
- Store in a place that will not allow contamination of another product that is stored above.
- The person in charge should routinely monitor employees to ensure safe and proper cooling practices are followed.

### Work Cited

*Estimates of Foodborne Illness in the United States.* (2013, February 6). Retrieved May 20, 2013, from Center for Disease Control and Prevention: <http://www.cdc.gov/foodborneburden/index.html#>

## The Big Thaw — Safe Defrosting Methods

As soon as raw or cooked meat, poultry or egg products 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**. There are **safe ways to thaw food**: in the refrigerator, in cold water, and in the microwave.

### Refrigerator Thawing

- Planning ahead is the key because a **frozen turkey** requires at least 24 hours for every 5 pounds.
- Small amounts of frozen food — such as a **pound of ground meat** or boneless **chicken breasts** — require a full day to thaw
- Food will take **longer** to thaw in a refrigerator set at **35°F** than one set at **40°F**.
- 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) should remain safe and good quality 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 **1 hour** or less.
- A **3- to 4-pound package** may take **2 to 3 hours**. For whole turkeys, estimate about 30 minutes per pound.
- Once thawed, food must be **cooked immediately**. Foods thawed by the cold water method should be **cooked before refreezing**.

#### Microwave Thawing

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

- 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.

**Remember:** 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.

#### Works Cited

*The Big Thaw — Safe Defrosting Methods*. (2013, September 25). Retrieved November 17, 2016, from USDA: <https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/the-big-thaw-safe-defrosting-methods-for-consumers/bigthaw2>

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