

# Temperature and Time Requirements for Food

## CONTROLLING GROWTH OF FOODBORNE PATHOGENS

### Temperature danger zone

The temperature range at which disease-causing bacteria grow best in time/temperature control for safety food (TCS) is called the temperature danger zone.

- Temperature danger zone is between 41°F and 135°F.
- TCS food must pass through the temperature danger zone as quickly as possible.
- Keep hot food hot and cold food cold. Always use a thermometer to check food temperatures.

### Cooling food

- Cool hot food from:
  - 135°F to 70°F within two hours**AND**
  - 135°F to 41°F or below within a total of six hours.
- The faster food is cooled, the better.

### Cold holding food

- Maintain cold food at 41°F or below.
- Frozen food must remain frozen.

### Cooking raw animal food

The table below shows minimum requirements for some common raw animal food.

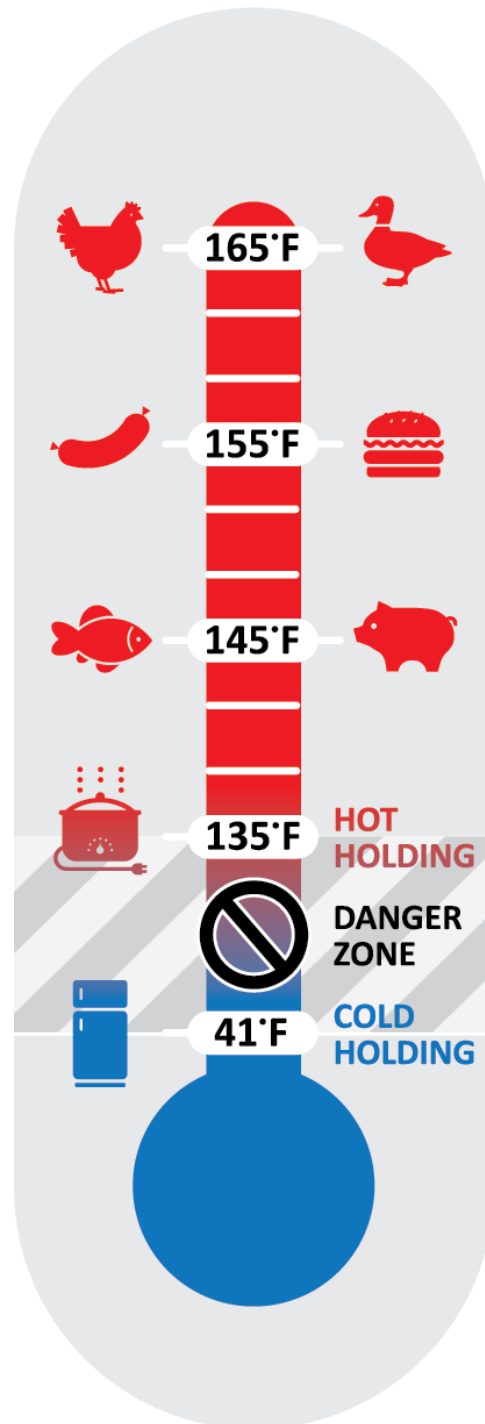
Food	Internal temperature and time
Poultry Wild animals Stuffed fish, meat, pasta or poultry Stuffing containing fish, meat or poultry	165°F for 15 seconds
Chopped or ground meat, fish, and game animals Ratitae Injected or tenderized meats Eggs for hot holding	158°F (immediate) <b>OR</b> 155°F for 15 seconds <b>OR</b> 150°F for 1 minute <b>OR</b> 145°F for 3 minutes
Fish Whole muscle meat Game animals Eggs for immediate service	145°F for 15 seconds

## Hot holding food

- Maintain hot food at 135°F or above.
- Properly cooked roasts may be held at 130°F or above.

## Reheating food

- Food made in-house and reheated for hot holding must reach an internal temperature of at least 165°F for 15 seconds.
- Food made in a food processing plant, opened in the food establishment, and reheated for hot holding must reach a temperature of 135°F.
- Reheat food rapidly, within two hours.
- Food that has been cooked and cooled properly may be served at any temperature if it is going to be served immediately.



## Resources

[Minnesota Department of Health Food  
Business Safety](#)  
[www.health.state.mn.us/foodbizsafety](http://www.health.state.mn.us/foodbizsafety)

Minnesota Department of Health  
Food, Pools, and Lodging Services  
PO Box 64975  
St. Paul, MN 55164-0975  
651-201-4500  
[health.foodlodging@state.mn.us](mailto:health.foodlodging@state.mn.us)  
[www.health.state.mn.us](http://www.health.state.mn.us)

Minnesota Department of Agriculture  
Food and Feed Safety Division  
625 Robert Street N  
St. Paul, MN 55155-2538  
651-201-6027  
[MDA.FFSD.Info@state.mn.us](mailto:MDA.FFSD.Info@state.mn.us)  
[www.mda.state.mn.us](http://www.mda.state.mn.us)

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