



TEMPERATURE CONTROL



INTRODUCTION

OBJECTIVE

To discuss the importance of food-temperature safety and control in the foodservice operation.

KEY MESSAGES:

- To illustrate appropriate internal cooking temperatures for various forms of food
- To define the temperature danger zone
- To understand how to properly cool cooked foods and how to appropriately reheat leftovers

Important note: local and state regulations for your kitchen may be different than outlined in this presentation. Follow all local and state regulations pertinent to your operations.



WHY IS TEMPERATURE CONTROL IMPORTANT?

Bacteria can grow to dangerous levels when temperature is not controlled properly. Staphylococcus aureus, Salmonella enteritidis, Escherichia coli O157:H7 and Campylobacter are a few of the types of bacteria. All of these types of bacteria can cause illness if ingested.

WHAT IS THE TEMPERATURE DANGER ZONE?

Between 40°F–140°F

This is considered the danger zone, because bacteria grows most rapidly in this range. In fact, bacteria can double in number in as little as 20 minutes.

https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/danger-zone-40-f-140-f/CT_Index

WHAT IS THE SAFE MINIMUM INTERNAL TEMPERATURE?

MEAT/POULTRY/SEAFOOD	MINIMUM INTERNAL COOKING TEMPERATURE
Precooked Ham	165°F *in USDA-inspected plants - 140°F
Raw Ham	145°F
Fish and Seafood	145°F
Beef, Pork, Lamb, Roasts, Steaks, Chops	145°F
Egg Dishes and Ground Meat	160°F
Poultry, Stuffing, Casseroles	165°F

When roasting meat and poultry, use an oven temperature no lower than 325°F

https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/danger-zone-40-f-140-f/CT_Index

STORING AND REHEATING LEFTOVERS

Bacteria can be reintroduced to food after it is safely cooked; therefore, it is important that leftovers are cooled, stored and reheated properly.

STORING LEFTOVERS

There are 3 main methods to properly cool cooked food:

Ice paddles

Ice water baths

Blast or tumble chillers

REHEATING LEFTOVERS

Foods should be reheated thoroughly to an internal temperature of 165°F – and hold that temperature for 15 seconds. Discard uneaten food after 2 hours.

Using a microwave oven is one way to reheat food. It is recommended to cover and rotate the food so that it heats evenly.

Do not use hot-holding equipment to reheat food.

Proper-Ways-To-Cool-Food.pdf ([servsafe.com](https://www.servefood.com/servsafe.com))
Kitchen/Food Service Observation ([cms.gov](https://www.cms.gov))

KEY TAKEAWAYS



Bacteria can grow to dangerous levels when temperature is not controlled properly.



Bacteria grows most rapidly between 40°F-140°F, which is why it is considered the temperature danger zone.



It is important that leftovers are cooled, stored and reheated properly, because bacteria can be reintroduced to food even after it is safely cooked.

REFERENCES

"Danger Zone." USDA Food Safety and Inspection Service, June 2017, www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/danger-zone-40-f-140-f/CT_Index.

Proper-Ways-To-Cool-Food.pdf (servsafe.com)

Kitchen/Food Service Observation (cms.gov)

TEMPERATURE CONTROL POST-TEST

1. What is the Temperature Danger Zone?

- ☐ 35°F – 135°F
- ☐ 40°F – 140°F
- ☐ 37°F – 120°F
- ☐ 50°F – 160°F

2. Why is temperature control important?

- ☐ Bacteria can grow rapidly in raw food if the temperature is not regulated correctly
- ☐ If temperature is not controlled, the bacteria that grows can cause foodborne illness if ingested
- ☐ Bacteria can be reintroduced to food even after it is safely cooked
- ☐ All of the above

3. What is a common method to properly store leftovers?

- ☐ Stir hot food with ice paddles prior to storing it in the refrigerator
- ☐ Cover the container immediately and place in the freezer
- ☐ Leave the food uncovered on the counter for 4 hours until it has cooled
- ☐ Pour ice in the food until cooled

4. What is the minimum internal cooking temperature for salmon fillets?

- ☐ 140°F
- ☐ 155°F
- ☐ 165°F
- ☐ 145°F

5. When reheating food, what internal temperature should it be heated to?

- ☐ 165°F for 15 seconds within 2 hours
- ☐ 155°F for 15 seconds within 2 hours
- ☐ 165°F for 15 seconds within 4 hours
- ☐ 145°F for 15 seconds within 4 hours