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Maintain Safe Food Temperatures

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South Dakota State University

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Food Safe South Dakota
A self-study for food-preparation sites

MAINTAIN SAFE FOOD TEMPERATURES

1. Cook food to a safe temperature to destroy harmful bacteria like Salmonella and E.coli 0157:H7.
2. Prevent overcooking and get the best flavor.

USE YOUR FOOD-SAFETY EQUIPMENT

Louis had finally advanced from the dish room to assistant cook at the local restaurant. The third night he worked, the head cook was sick, so he was left in charge cooking menu items he was not familiar with. When the chicken was taken out of the deep-fat fryer, the chicken was golden and certainly looked done from the outside. However, several customers complained that it was still cool on the inside and was not cooked completely. What could Louis use to make sure the chicken was cooked completely?

TIPS TO REMEMBER:
- Stick the thermometer into the thickest part of the food.
- Keep foods out of the Temperature Danger Zone (TDZ):
  - A cold food should read 41°F or below.
  - A hot food should read 140°F or above.
- Clean and sanitize thermometer before and after each use (keep cover clean and sanitized too).

CHECK "INSTANT-READ" DIAL THERMOMETER FOR ACCURACY:
Ice Water Method: Fill a large glass with finely crushed ice. Add clean water to the top of the ice and stir well. Immerse the thermometer stem a minimum of 2 inches into the mixture. The thermometer should read 32°F (after 30 seconds). Check for accuracy on a regular basis, or if the thermometer is dropped or exposed to extreme temperatures.

WHAT TYPES OF FOOD THERMOMETERS ARE AVAILABLE?
Digital thermometers provide a digital readout of a specific temperature on top of a long metal stem:
- Battery-powered; needs to be turned on and off; check battery often for replacement.
- Temperature is registered in less than 5 seconds.
- Placed in food at the end of the cooking time.
- The sensor is located in the tip of the probe—

therefore, ideal for thin foods, such as hamburgers and chicken breasts.
- Not oven-safe and should not be immersed in water.

Dial thermometers have a temperature range featured on a round dial on top of a long metal stem:
- Large dial thermometers are oven-safe and good for large roasts and whole poultry.
- Smaller "instant-read" dial thermometers are not designed to stay in an oven but are used to spot-test food during and at the end of the cooking time.
- Sensor is about 2 inches up the stem—therefore, 2 inches of stem (from the tip) needs to be in the thickest part of the food (for thin foods, insert into the side).

SOUTH DAKOTA FOOD SERVICE CODE REQUIRES THE MINIMUM FINAL INTERNAL COOKING TEMPERATURES:

Minimum Requirements (your establishment may have higher temperature standards)		
Temperature	**Time**	**Food**
145°F	15 seconds	Shell eggs for individual order; fish, seafood; beef, veal, lamb, mutton, and buffalo steaks
155°F	15 seconds	Ground/chopped meat and fish, injected meats, eggs in multi-serving batches to be held for hot service. Roasts – pork, beef, lamb, ratites, buffalo
150°F or 145°F	1 minute 3 minutes	Roasts – pork, beef, lamb, ratites, buffalo
165°F	15 seconds	Poultry (whole or ground), leftovers, stuffed foods, or stuffing containing fish, meat or poultry.

DIGGING DEEPER—MAINTAIN SAFE FOOD TEMPERATURES:

1) When cooking ground-beef patties, your food-service establishment requires that they be cooked to a final temperature of 165°F. How do you know the meat is cooked to 165°F?
   a) If the outside is dark and the juices run clear, it is cooked to a safe level.
   b) The inside of the ground beef patty is no longer pink.
   c) You place a digital thermometer in the center of the patty and it reads 165°F or higher.
   d) Choices a and b.

2) When using a dial-stem thermometer to take the temperature of a chicken breast…
   a) The stem of the thermometer should be at least 2 inches into the chicken breast from the side.
   b) The tip of the thermometer should be placed into the middle of the chicken.
   c) You should lay the thermometer on top of the chicken breast.
   d) You should check the temperature of the oven— if it is 350°F, the chicken should be cooked completely.

3) Which of the following is correct use of a thermometer?
   a) It is placed in a 50/50 ice water slush to see if it is accurate. If the temperature reads 0°F, it is accurate.
   b) It is placed in a 50/50 ice water slush to see if it is accurate. If the temperature reads 32°F, it is accurate.
   c) The digital thermometer is left in the turkey stuffing while it bakes to make sure it reaches a final temperature of 165°F.
   d) Using the same thermometer, you take the temperature of a turkey (and it is at 150°F), then you immediately take the temperature of a beef roast (and it is at 145°F and ready to be served).

4) What is the minimum final cooking temperature of a pork roast, according to the South Dakota Food Code standards?
   a) 145°F for 3 minutes
   b) 145°F for 1 minute
   c) 165°F for 15 seconds
   d) 325°F for 2-1/2 hours

Source: USDA Food Safety Facts, 1999. Cook It Safely Use a Food Thermometer and South Dakota Food Service Code 44:02:07:28(1).

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