

Chapter 7

Food Safety



In this unit the RCCI personnel will learn to keep a daily log of storage temperatures, rules for keeping the kitchen clean, ways to teach children about food safety, and proper temperatures for holding and serving food.

On any day in this country nearly 20,000 people get sick from something they ate. About 25 die. No longer does food borne infection mean just a few days of discomfort and inconvenience. Microbes are more deadly, and the way food is distributed to the population makes food more susceptible to contamination.

Foodborne illness is 100 percent preventable. The way to prevent infection is to keep food clean and cook it properly.

Keep a daily log of temperatures in each refrigerator and freezer. If the thermometer shows a temperature above the minimum required, except during the brief defrost cycle, have the unit repaired. Maintaining correct temperature in refrigerators

and freezers protects food supply quality. Rarely do temperatures rise rapidly. If the unit is failing, usually the temperature will change only a degree or two each day. This might not be noticed unless a daily log is kept to show the upward trend. The unit should be repaired then, before the food spoils.

Make a log or copy the sample on page 7-2 of this unit. If the RCCI participates in the Food Distribution Program, ask about specific temperature log requirements for that program.

Keep it Clean

Keeping the kitchen work area and everything in it clean (including the cook) is the best way to ensure that food is safe during preparation, serving, and storage.

- ✓ Keep floors clean.
- ✓ Keep counters, shelves, and tables clean.
- ✓ Clean refrigerator regularly and often.
- ✓ Wash utensils after each use. Air dry.
- ✓ Use clean sponges, cloths, and towels for cleaning.
- ✓ Clean sink after each use.
- ✓ Keep exhaust fans, filters,

and hoods clean and free of dust and grease.

- ✓ Wear clean clothes.
- ✓ Use a cap or hair restraint.

Teach the Children

Children like to help in the kitchen, and they will often try new foods they have helped to prepare. Letting children help with food preparation is a good opportunity to teach them good nutrition and food safety.

- ✍ Teach them to wash their hands before touching food.
- ✍ Explain which foods need to be refrigerated and why.
- ✍ Remind them to return perishables like milk to the refrigerator immediately.
- ✍ Make sure they know how and why to keep utensils clean.
- ✍ Teach them to throw away leftovers after two hours at room temperature.

Who to Ask

Call the USDA hotline for food safety facts: 1-800-535-4555. Professional home economists answer questions, especially about meat and poultry safety, from 10 a.m. to

4 p.m. EST.

For More Information

Request a copy of the
USDA's "Serving It Safe"
from your state agency.

Food Storage Temperature Chart

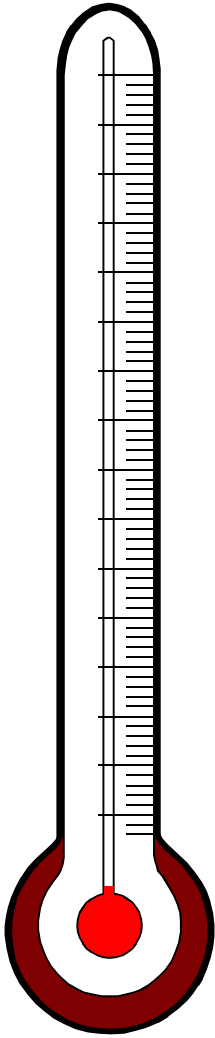
Month _____

- A - Refrigerator/Cooler storage area recommended temperature 35° F - 45° F
- B - Freezer storage area - recommended temperature -10°F - 0° F
- C - Dry storage areas - recommended temperature 50° F - 70° F

	A	A			B	C			
Month	Day	Year	Temperature	Checked by	Month	Day	Year	Temperature	Checked by

1					1				
2					2				
3					3				
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Temperature Chart



212° boiling point

180° dishwasher rinse

140° - 165° serve hot foods

140° minimum for hot foods

D A N G E R

50° - 75° dry storage

40° maximum for cold foods

25° serving temperature for frozen foods

0° freezer temperature

The Significance of Everyday Things

Typical “Do’s” might include:

1. Washing hands.
2. Cleaning and sanitizing utensils, dishes, and equipment.
3. Wearing gloves, hair nets, and other appropriate clothing.
4. Refrigerating foods.
5. Cooking foods thoroughly.

Typical “Don’ts” might include:

1. Using hands or serving utensils to taste foods during preparation or serving.
2. Reusing dishes, equipment, or utensils without sanitizing them.
3. Eating or smoking in undesignated areas.
4. Touching hair or parts of the body, then handling food.

Sanitizing

Chemical sanitizing can be accomplished by immersing an object in, or wiping it down with, a bleach or sanitizing solution.

For bleach, use ½ ounce or 1 tablespoon of 5-percent bleach per gallon of water. For commercial

products, follow the manufacturer’s instructions.

Chemical sanitizers are regulated by the Environmental Protection Agency (EPA), and manufacturers must follow strict labeling requirements about what concentrations to use, data on minimum effectiveness, and warnings of possible health hazards.

Chemical test strips are available for testing the strength of the sanitizing solution. Because sanitizing agents become less effective as they kill bacteria and are exposed to air, it is important to test the sanitizing solution frequently.

Sanitizing Steps:

- ★ Clean and sanitize sinks and work surfaces.
- ★ Scrape and rinse food into garbage or disposal. Pre-soak items, such as silverware, as necessary. Then...
- ✓ **In the first sink**, immerse and **WASH** the equipment in a clean detergent solution at about 120° F. Use a brush or a cloth to loosen and remove any remaining visible soil.
- ✓ **In the second sink**, **RINSE** using clear, clean water between 120° F and 140° F to remove all traces of food, debris, and detergent.

- ✓ **In the third sink**, **SANITIZE** by immersing items in hot water at 170° F for 30 seconds, or in a chemical sanitizing solution for 1 minute. Be sure all surfaces of the equipment are covered with hot water or the sanitizing solution and remain in contact with it for the appropriate amount of time.

★ **While you wash, rinse, and sanitize...**

- ✓ If soap suds disappear in the first compartment or remain in the second, the water temperature cools, or water in any compartment becomes dirty and cloudy, empty the compartment and refill it.

★ **Then air dry.**

- ✓ Wiping can re-contaminate equipment and can remove the sanitizing solution from the surfaces before it has finished working.
- ★ **And, finally, store.**
- ✓ Make certain all equipment is dry before putting it into storage to avoid retaining

moisture that fosters bacterial growth.

- ☼ Store all items, including paper products, at least 6 inches above the floor.

- ☼ Never use or store cleaning materials or other chemicals where they might contaminate foods!

Tips for Cooking Safely

- ✿ Never interrupt the cooking process.
- ✿ Always use sanitized thermometers to ensure foods reach the proper internal temperature during cooking.
- ✿ Avoid recontamination!

Guidelines for Dry Storage

- ☼ Make sure the dry storage room is clean, orderly, and well ventilated.
- ☼ Clean up all spills immediately.
- ☼ Do not store trash or garbage cans in food storage areas.
- ☼ Hold dry foods between 50° F and 70° F.
- ☼ Store opened items in tightly covered, labeled containers.
- ☼ Use the “First In, First Out” (FIFO) rotation method and date all packages.

Guidelines for Refrigeration

- ✗ Make sure cold air can circulate freely around food. Do not line shelves with foil or paper.
- ✗ Make sure refrigerated foods are dated and properly sealed.
- ✗ Keep food in clean, nonabsorbent, covered containers.
- ✗ Store dairy products separately from foods with strong odors like onions, cabbage, and seafood.
- ✗ Store raw or uncooked food away from and below prepared or ready-to-eat food.
- ✗ Check the temperature of your refrigeration unit regularly to make sure it stays below 40° F. Record temperatures on a chart for **EACH** refrigeration unit. (See page 7-2.)

Safe Refrigerator Storage Times (40° F)

1 to 2 days

Raw ground meats,
breakfast or other raw
sausages, raw fish or
poultry; gravies

3 to 5 days

Raw steaks, roasts, or
chops; cooked meats,
vegetables, and mixed
dishes; ham slices;
mayonnaise salads
(chicken, egg, pasta, tuna)

1 week

Hard-cooked eggs, bacon
or hot dogs (opened
packages); smoked
sausages

2 to 4 weeks

Raw eggs (in shells);
bacon or hot dogs
(packages unopened); dry
sausages (pepperoni, hard
salami); most aged and
processed cheeses (Swiss,
brick)

2 months

Mayonnaise (opened jar);
most dry cheeses
(Parmesan, Romano)

Sources: A. Hecht, Preventing
food-borne illnesses, *FDA
Consumer*, January/February
1991, p. 21; Refrigerator
storage times for selected foods,
Consumer Reports on Health,
December 1991, p. 93.

Taking Temperature

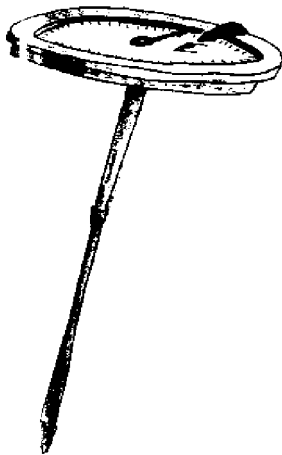
Always check the temperature of foods to make sure they are thoroughly cooked.

Use a metal-stemmed, numerically scaled thermometer, accurate to plus or minus 2° F.

Sanitize the thermometer before each use with a sanitizing solution.

Check food temperature in several places, especially in the thickest parts.

To avoid getting a false reading, be careful not to let the thermometer touch the pan, bone, fat, or gristle.



How to Prevent Food-Borne Illnesses

Keep Hot Foods Hot

- * When cooking meats or poultry, use a thermometer to test the internal temperature. Insert the thermometer between the thigh and the body of a turkey or into the thickest part of other meats, making sure the tip of the thermometer is not in contact with bone or the pan. Cook to the temperature indicated for that particular meat; cook hamburgers to at least medium well-done. If you have safety questions, call the USDA Meat and Poultry Hotline: (800) 535-4555.

- * Cook stuffing separately, or stuff poultry just prior to cooking.

- * Do not cook large cuts of meats or turkeys in a microwave oven; they leave some parts undercooked while overcooking others.

- * Cook eggs before eating them (soft-

boiled for at least 3½ minutes; scrambled until set, not runny; fried for at least 3 minutes on one side and 1 minute on the other).

- * When serving foods maintain temperatures at 140° F or higher.

- * Heat leftovers thoroughly to at least 165° F.

- * Discard any food held at room temperature for more than 2 hours.

Safe Internal Cooking Temperatures

Poultry (Dark Meat)-180°
 Poultry (Light Meat)-170°
 Ground Poultry-165°
 Ground Beef and Fresh Pork (All Types)-160°
 Beef, Veal, and Lamb Roasts, Steaks, and Chops (Med Rare)-145°

Keep Cold Foods Cold

- * When running errands, stop at the grocery store last. When you get home, refrigerate the perishable groceries (such as meats and dairy products) immediately. Do not leave perishables in the car any longer than it takes for ice cream to

melt.

* Buy only those foods that are solidly frozen and stored below the frost line in store freezers.

* Keep cold foods at 40° F or less; keep frozen foods at 0° F or less (keep a thermometer in the refrigerator).

* Refrigerate leftovers promptly; use shallow containers to cool foods faster.

* Thaw meats or poultry in the refrigerator, not at room temperature. If you must hasten thawing, use cool running water or a microwave oven.

Keep a Clean and Safe Kitchen

◆ Wash fruits and vegetables with a scrub brush.

◆ Use hot, soapy water to wash hands, utensils, dishes, nonporous cutting boards, and countertops. Use a bleach solution on wooden cutting boards.

◆ Avoid cross-contamination by

washing all surfaces that have been in contact with raw meats, poultry, or eggs before reusing.

◆ Mix foods with utensils, not hands; keep hands and utensils away from mouth, nose, and hair.

◆ Anyone may be a carrier of bacteria and should avoid coughing or sneezing over food. A person with a skin infection or infectious disease should not prepare food.

◆ Wash towels regularly.

◆ Clean up food spills and crumb-filled crevices.

In General

√ Do not taste food that is suspect. "If in doubt, throw it out."

√ Throw out foods with danger-signaling odors. Be aware, though, that most food poisoning bacteria are odorless, colorless, and tasteless.

√ Do not buy or use items that appear to have been opened; check safety seals,

buttons, and expiration dates.

√ Follow label instructions for storing and preparing packaged and frozen foods.

√ Discard foods that have decayed or been contaminated by insects or rodents.

For Specific Food Items

⊠ **Canned goods.** Discard food from cans that leak or bulge in a manner that will protect other people and animals from accidentally ingesting it before canning, seek professional advice from the USDA Extension Service (check your phone book under U.S. government listings, or ask directory assistance).

⊠ **Milk and cheeses.** Use only pasteurized milk and milk products. Aged cheeses, such as cheddar and Swiss, do well for an hour or two without refrigeration, but should be refrigerated or stored in an ice chest for longer periods.

⊠ **Eggs.** Use clean eggs with intact shells. Do not eat eggs raw.

⌘ **Honey.** Honey may contain dormant bacterial spores, which can awaken in the human body to produce botulism. In adults, this poses little hazard, but infants under one year of age should never be fed honey. Honey can accumulate enough toxin to kill an infant; it has been implicated in several cases of sudden infant death. (Honey can also be contaminated with environmental pollutants picked up by the bees.)

⌘ **Mayonnaise.** Commercial mayonnaise may actually help a food to resist spoilage because of the acid content. Still, keep it cold after opening.



⌘ **Mixed salads.** Mixed salads of chopped ingredients spoil easily because they have extensive surface area for bacteria to invade, and they have been in contact with cutting boards, hands, and kitchen utensils that easily transmit bacteria to food (regardless of their mayonnaise content).

⌘ **Picnic foods.** Choose foods that last without refrigeration such as fresh fruits and vegetables, breads and crackers, and canned spreads and cheeses that can be opened and used immediately. Pack foods cold, layer ice between foods, and keep foods out of water.

Note: Check with your local health agency for state specific food safety and sanitation rules.

