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Food Safety [Facilitator's Guide]

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Lesson Goals

After this lesson, participants will:

• Know what food-borne illness is.
• Describe signs and symptoms of food-borne illness.
• Know safe temperatures for food.
• Know proper methods for storing, preparing, and serving food.

Before Teaching the Lesson

1. Read carefully:
   • USDA Web site “Fight BAC” materials <www.fsis.usda.gov>
   • Keeping Food Safe to Eat (NEP-211)
   • 10 Ways to Fight Food Spoilers (NEP-211A)
   • Cleaning Up (NEP-211B)
   • Meaty Tips (NEP-211C)
   • Canning for Food Preservation (NEP-211D)

2. Be prepared to demonstrate use of a meat thermometer, if available.

3. Collect food models to demonstrate storage of dry foods versus perishable foods.

4. Check the homemaker’s Behavior Checklist. Does the homemaker:
   • Take precautions to control insects and rodents in her home?
   • Dispose of garbage promptly and in a sanitary way?
   • Store perishable and nonperishable food properly?
   • Keep dishes, utensils, appliances, and counters in her kitchen clean?

5. Plan how you will teach the lesson.

Teaching Tools

For the homemaker:

• Keeping Food Safe to Eat (NEP-211)
• 10 Ways to Fight Food Spoilers (NEP-211A)
• Cleaning Up (NEP-211B)
• Meaty Tips (NEP-211C)
• Canning for Food Preservation (NEP-211D)
• USDA Web site “Fight BAC” materials <www.fsis.usda.gov>
• Food models showing dry versus perishable storage
• Meat thermometer

For youth:

• “Kitchen Safety,” “Operation Risk” videos
• “Tosha’s Day”
• Glo-Germ kit
• Star Chef: “It’s a Wash” “Spoiled Rotten”
• The Organwise Guys:
  - “Foods 101” (3rd-5th grades)
  - “Are You Germ Wise?” (3rd-5th grades)
• Fantastic Foods 4-H Curriculum:
  - “Six Easy Bites” (3rd-4th grades)
  - “Tasty Tidbits” (5th-6th grades)
  - “You’re the Chef” (6th-9th grades)
  - “Foodworks” (10th-12th grades)

Points to Stress

1. Bacteria (germs) are everywhere – in the air, on hands, and in food. You can’t see them, smell them, or taste them. Some bacteria can be helpful. Other bacteria, when allowed to grow in food, can cause food-borne illness.

2. It is easy to mistake food-borne illness for stomach flu because symptoms are similar (nausea, vomiting, stomach cramps, diarrhea).

3. Simple precautions when buying, storing, preparing, cooking, and preserving food can prevent food-borne illness.

Buying

4. Beware of food that may be spoiled. Never buy or use food in:
   • Cans with bulges.
   • Cans with large dents.
   • Badly rusted or pitted cans.
   • Cans with other signs of leakage.

5. Be sure package wrappers are not torn.

6. Don’t use cold foods that aren’t refrigerated or that are not cold.
7. Don't use cracked eggs.
8. Don't use frozen foods that are soft or have ice crystals (previously thawed and refrozen).
9. Go directly home after shopping and store foods at once. If traveling a long distance home from the grocery store, use a cooler with ice to keep cold foods cold.
10. Do not let foods sit in a hot car.

Storing
11. As a general rule, store foods in the home as they are stored in the grocery store.
12. Foods that should be stored in the refrigerator include:
   - Fluid milk
   - Cheese
   - Eggs
   - Meat
   - Canned goods that have been opened (fruits, vegetables, peanut butter, mayonnaise)
   - Foods in bottles that have been opened (salad dressing, catsup, mustard, juice)
   - Leftover cooked foods
   - Margarine
   - Butter

Can you name others?
13. Foods you should store on a shelf in a cupboard include:
   - Cereal
   - Dry beans
   - Pasta
   - Flour
   - Sugar
   - Spices
   - Powdered (dry) milk
   - Unopened canned goods

Can you name others?
14. Some foods must be stored in tightly sealed containers to keep out air, dust, and bugs. These include:
   - Dry beans
   - Pasta
   - Flour
   - Dry milk
   - Spices
   - Sugar

Can you name others?
15. A cool, dry, dark place such as a cellar, is the best place to store:
   - Potatoes
   - Onions
   - Turnips
   - Canned goods that will not be used for several months

16. Foods that were purchased frozen should be stored in the freezer.

17. Raw meat, fish, or poultry that will not be consumed within two or three days should be stored in the freezer.
18. How long a food can be stored safely in the refrigerator or freezer depends upon the food and storage conditions. Consult labels for storage recommendations.
19. Many disposable items can make excellent storage containers. Some examples are:
   - Empty bread wrappers
   - Margarine tubs
   - Coffee cans
   - Baby food jars
20. Do not store foods above the stove, under the sink, or with household cleaning supplies.

In the kitchen
21. Germs hate soap and water. Clean hands, equipment, and work surfaces help to keep food safe to eat.
22. Germs are easily transported from raw meat and poultry to other foods. Clean cutting boards, knives, and equipment with hot soapy water after cutting raw meat and poultry. Wash hands thoroughly. Sanitize cutting boards and all surfaces with a bleach solution of 1 tablespoon chlorine bleach per gallon of water.
23. Germs grow fastest at room temperature. For this reason:
   - Thaw frozen foods in the refrigerator, not on the counter.
   - Serve food soon after cooking.
   - Refrigerate any leftovers at once.
   - Never let foods sit out at room temperature for more than two hours.
   - Keep hot foods hot and cold foods cold.
24. Spoiled food does not always look, taste, or smell spoiled. When in doubt, throw it out.
25. Harmful bacteria grows well in foods that are high in protein, such as:
   - Meat
   - Poultry
   - Fish
   - Eggs
   - Milk
   - Take special care in cooking, serving, and storing stuff-ing, gravy, luncheon meats, cream pies, sandwich fillings, potato salad, and meat or egg salad.
26. Food-borne bacteria grow quickly at temperatures between 40° F and 140° F. This means you must plan ahead to keep cold foods cold and hot foods hot at picnics, cookouts, and holiday feasts and in sack lunches.
1. Be aware of the common causes of spoiled food:
   - Improper food temperature during storage, thawing, or cooking.
   - Food sitting at room temperature too long.
   - Dirt, dust, and germs.
2. Don’t taste food you suspect may be spoiled. If in doubt, throw it out.
3. Many food products have dates stamped on them to help prevent food-borne illness.
   - The “use by” date is the last date a product will be at peak quality.
   - The “sell by” date is the last date a store may sell the product. Use up the product or freeze it within a day or two of this date. This date is stamped on fresh products made from milk.
   - The “best if used by” date is not related to safety. It is the last guaranteed date for high product quality or freshness.
4. Safe storage of cold products varies. Review the “Cold Storage” guidelines on the back page of NEP-211A. Suggest the homemaker post it on the inside of a kitchen cupboard door for quick reference.

**NEP-211B**

1. Use the list on side one of Cleaning Up (NEP-211B) to review safe food handling practices with the homemaker.
2. Suggest that the homemaker cover side two of Cleaning Up with clear shelf paper or plastic and post it on the refrigerator door as a reminder of safe food handling practices.

**NEP-211C**

1. Cooking food to the done stage is the best way to prevent food-borne illness. Whenever possible, use a meat thermometer.
2. Check meat before serving it. Poultry, pork, and ground meat should not be pink and their juices should run clear. Larger meat roasts may be slightly pink in the middle.
3. Avoid cross-contamination. That means cleaning up between uses of cutting boards, work surfaces, utensils, platters, and hands. For example, don’t chop vegetables with a knife or on a cutting board that was just used to cut raw meat. Thoroughly wash that knife, cutting board and your hands after the meat is cut up and before chopping the vegetables. If possible, use separate cutting boards for meat and other foods. Another solution is to use one side of the cutting board for meat and the other side for other foods.

**NEP-211D**

1. Botulism is the deadliest form of food-borne illness. It is most often caused by eating incorrectly home-canned foods. There are ways you can prevent botulism:
   - Use recommended canning methods and processing times.
   - Check canned foods for signs of spoilage before using. Discard bulging, leaking, or rusted cans.
   - Boil home-canned vegetables for at least 10 minutes before serving.
2. Review NEP-211D with the homemaker. Stress:
   - Cost savings
   - Fresh product quality
   - Proper canning procedures
3. Refer the homemaker to the complete Guide to Home Canning series, FCS3-325 through FCS3-329.
4. Invite the homemaker to attend an Extension canning demonstration.

**In Summary**

There are three key rules to preventing food-borne illness:
- Keep food clean.
- Keep hot foods hot.
- Keep cold foods cold.

“Fight BAC” provides four simple steps to achieve compliance with these rules:
- Wash hands and surfaces often.
- Don’t cross-contaminate.
- Cook to proper temperatures.
- Refrigerate food promptly.

**Ideas for Teaching the Lesson**

1. Before teaching the lesson, review what you taught the homemaker on your last visit.
   - What information was used?
   - What new things have been tried?
2. Make a poster of an open refrigerator-freezer and one of a cupboard. As you discuss food storage, “store” food models as you would groceries.
3. Help the homemaker complete the checklist on side one of NEP-211B. Discuss why each practice is important for preventing food poisoning.
4. Make a poster highlighting the three key rules for keeping food safe to eat.
5. Use food models or pictures of foods from magazines to illustrate the foods most often involved in food poisoning. Discuss how to store and use each one.
6. In the summer, pack an imaginary picnic basket with typical picnic food models. Use this to discuss how to prevent potential hazards. Repeat the exercise with a lunch box.
7. If it’s close to the winter holidays, emphasize proper thawing and cooking of the turkey and how to safely handle stuffing.
Ideas for Teaching Small Groups

1. Use the “Do You Ever Feel Sick?” PowerPoint®.
2. Make a display showing how to use disposable containers for food storage.
3. Present a skit of a homemaker who does not handle food properly. Ask members of the group to identify all the things she does to encourage food-borne illness. Discuss what she should have done to keep food safe to eat. Or illustrate the same points with a picture. See who can find the greatest number of things wrong with the homemaker’s food-handling practices.
4. Show a video appropriate to the age of the audience:
   • “Get with a Safe Food Attitude”
   • “Chances and Choices with Food”
   • “To Your Health! Food Safety for Seniors”
   • “HACCP: A Common-Sense Approach to Preventing Food-borne Illness”
   • “Kitchen Safety”
   • “Long Live la Familia”
5. Refer to the previous section, “Ideas for Teaching the Lesson,” for more ideas.

How to Tell What the Homemaker(s) Learned

Immediately following the lesson:
• Give the “Food Safety Quiz.”
• Put several examples of perishable and nonperishable foods in a grocery bag. (Use food models or empty food packages.) Ask each homemaker to unpack the groceries and tell you where she would store each item.
• Ask each homemaker to tell you one or two ways she can improve her food-handling practices.
• Ask each homemaker to describe safe storing and holding procedures for the foods that need special care.
• Ask each homemaker to list signs of food spoilage and describe what should be done with food suspected of being unsafe to eat.

At a later date:
• Ask the homemaker to describe or show changes she has made in food storage practices.
• If possible, observe the homemaker’s cooking and serving habits. Have any improvements been made in food-handling practices?
• If possible, observe:
  - Has the homemaker made any new attempts to control household bugs?
  - Are windows and doors tightly screened?
  - Is garbage disposed of promptly and in a sanitary manner?
  - Are tables, counters, appliances, and other kitchen surfaces clean and dry?

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