Session 5

Foodborne Illness

Shopping for Food Safety

Safe Food Handling at Home

Storing Food Safely

Group Presentation and Demonstration

Training Objectives

At the end of this training session, participants will be able to:

- Identify how food borne illness develops.
- Identify foods which are potentially unsafe, and foods which are usually safe.
- Discuss food safety strategies while at the grocery store.
- Identify the four steps for safe food handling at home.
- Use the *Food Handlers' Storage Guide* to determine the optimal location and length of storage for various food products.
- Answer client questions using the Community Food Advisor guidelines.

Training Outline

Topic / Activity	Suggested Time
1. Check in and Review	10 minutes
2. Group Presentation and Demonstration	45 minutes
3. Warm up: Food Safety Quiz	15 minutes
4. About Foodborne Illness	20 minutes
5. Break	15 minutes
6. Shopping for Food Safety	10 minutes
7. Safe Food Handling at Home	40 minutes
8. Safe Food Storage	5 minutes
9. Wrap up	5 minutes

Advance Preparation

- ☐ Photocopy and gather workbook materials for this session.
- ☐ Prepare snack for the break.

Supplies and Equipment

- ☐ Name tags
- ☐ Data projector with computer
- ☐ Flip chart, paper and markers
- ☐ Extra pens, pencils, paper, masking tape
- ☐ Extra copies of handouts and worksheets included in the workbooks
- ☐ Copies of *"Presentation Feedback Checklist"*

Relevant Publications

- ☐ *Food Safety: A Presentation Module for Community Food Advisors, 2008*
- ☐ *Food Handler's Storage Guide*, OMAFRA Download at http://www.eatrightontario.ca/en/Articles/Food-safety/Food-Handlers-Storage-Guide

Resource Binder Reference

- ☐ Section 3 – Food Safety
- ☐ Section 6 – Food Storage and Preservation
- ☐ Section 10 – Program Planning and Delivery

Detailed Outline of Training Session

1. Check in and Review (10 minutes)

- Welcome the participants and remind them to use their name tag
- Review Home Activity from Session 4

> **Home Activity from Session 4**
>
> - Encourage participants to read the resources for this session and complete additional activities as they choose.
> - Review Health Canada nutrition label information. Complete the on-line interactive quiz at http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/cons/interactive-eng.php

- Distribute the workbook materials for this session.

2. Group Presentation and Demonstration (45 minutes)

- Provide 30 minutes for the assigned group of 2 or 3 participants to present the Healthy Eating Manual Lesson 3 *Healthy Eating with Whole Grains.*
- Provide 15 minutes for the assigned group to prepare a recipe with an unique grain such as quinoa or bulgur.
- Distribute and encourage other participants to complete the *Presentation Feedback Checklist* as they are listening to the presentations.
- At the end of the presentation and food demonstration, provide constructive feedback to the group. Encourage participants to provide feedback based on the checklist they have completed.

3. Warm up: Food Safety Quiz (15 minutes)

- Ask participants to complete the *Food Safety Quiz* found in the workbook. Allow 5 minutes for them to complete the quiz.
- Discuss the answers with the group. Ask participants to follow along on *Food Safety Quiz Answers* handout found in the workbook. Explain that many of the answers to this quiz will be discussed in greater detail in this session.

4. About Foodborne Illness (20 minutes)

- Use the *Food Safety* presentation (slides 1-8) to discuss what foodborne illness is and how it develops.
- Use the presentation to introduce the concept of high risk and low risk foods.
- Ask participants to complete the *High Risk – Low Risk Foods* activity sheet in the workbook. This activity asks participants to identify the high risk and low risk foods within each food group.

- To save time you may complete the High Risk-Low Risk activity as a group and/or have CFA volunteers lead the activity.
- Review the answers, shown on slide 10 in the *Food Safety* presentation.

5. Break (15 minutes)

6. Shopping for Food Safety (10 minutes)

- Ask participants for ideas on how to shop for food safety at the grocery store. Continue the *Food Safety* presentation (slides 12-14) to explore ideas and provide additional suggestions.

7. Safe Food Handling at Home (40 minutes)

- Explain that an important role for Community Food Advisors is promoting safe food handling techniques. Emphasize that they will be role models for other people and should therefore practice good hygiene and safe food handling at all times. This is especially important when communicating with the public.
- Continue the *Food Safety* presentation (slides 15-31). Introduce Fight Bac™, four steps to safe food handling at home:

  Step 1: Chill
  Step 2: Clean
  Step 3: Separate
  Step 4: Cook

- Review on-line resources:
  - Food Safety http://www.inspection.gc.ca/food/consumer-centre/food-safety-tips/food-handling/eng/1331871496701/1331871695247
  - Food Safety Tips, Canadian Food Inspection Agency http://www.inspection.gc.ca/food/consumer-centre/food-safety-tips/eng/1304966258994/1304966421147

Chill (slide 18-20)

- Continue the *Food Safety* presentation to discuss safe temperatures, refrigerator and freezer storage guidelines and safe thawing of food.
- Ask participants to complete the *Where to Store Food in the Refrigerator* activity sheet in the workbook. Encourage them to work in pairs. Ask participants where they would store the listed items in their refrigerator or freezer. Review the answers, shown on slide 22 in the *Food Safety* presentation.

Clean (slide 23-25)

- Continue the *Food Safety* presentation to discuss the importance of hand washing and cleaning surfaces often. Involve participants in the discussion. Ask them when hands should be washed. Ask for suggestions for keeping utensils, equipment and surfaces clean.

Hand Washing Demonstration…

- Demonstrate how to wash your hands incorrectly. For example: leave rings on, don't use soap, only pass them under the tap for a few seconds, turn tap off with hands, dry hands with a "used towel", pass hands over hair after washing.

- Have the participants observe your hand washing techniques and record the things you did wrong.
- Ask participants to identify what was wrong with this method of hand washing.
- Ask for a volunteer to demonstrate the correct way to wash hands, using the six step method shown on slide 20 in the *Food Safety* presentation.

  or…

- Check with your Public Health Inspector for a **Glo Germ™ Kit**.
- Ask one or two participants to put a small amount of Glo Germ™ on their hands and rub it in (remove jewellery before applying Glo Germ™).
- Turn off the lights and shine the Glo Germ lamp on the participants' hands. (Do not shine light in the eyes). The "Glo" represents the germs.
- Ask participants to wash their hands incorrectly and use the lamp to determine if hands are contaminated.
- Ask participants to wash their hands the correct way, using the six step method. Check for germs with the lamp.
- Other ideas: Ask participants with Glo Germ™ on their hands to
  - Shake hands with another participant. Shine the light on the second person to see how germs are spread.
  - Touch an object (table, door knob, fruit). Shine the light on that object to see how germs are spread

Counter Spray Demonstration (Optional)…

- Review the "Recipes for Food Safety" for sanitizing surfaces and equipment on slide 22-23 in the *Food Safety* presentation.
- Demonstrate how to prepare counter spray by adding 5 ml of bleach to 750 ml water. Put in a spray bottle and show how it can be used to sanitize cutting boards and work areas.
- Tell participants that a fresh solution should be made every day (it deteriorates quickly) and the container will eventually be damaged.

Separate (Slide 29-30)

- Continue the *Food Safety* presentation to discuss cross-contamination and strategies to avoid cross-**contamination.**

Cook (Slide 31)

- Continue the *Food Safety* presentation to discuss importance of cooking and heating food for a long enough time *and* at a high enough temperature.
- Discuss food safety temperature guidelines.

8. Safe Food Storage (5 minutes)

- Distribute the OMAFRA Food Handlers' Storage Guide. Highlight general food storage guidelines.
- Show where resource is located on line. Food Handler's Storage Guide, OMAFRA Download at http://www.eatrightontario.ca/en/Articles/Food-safety/Food-Handlers-Storage-Guide

Let participants know that the home activity: *Can Your Kitchen Pass a Food Storage Test?* will help them explore safe food storage further.

9. Wrap up (5 minutes)

- Recap the objectives covered in this session.
- Assign Home Activities.
- Identify the focus for the next session. Encourage participants to read the appropriate sections in the Resource Binder
- Remind the participant(s) who have signed up to be the assistant for the next session of their responsibilities.

Home Activity

- Ask participants to complete the **Can Your Kitchen Pass a Food Storage Test?** activity sheet.
- Encourage participants to read the resources for this session and complete optional activities as they choose.
- Encourage participants to review food safety websites on-line.

Workbook

Session 5

Community Food Advisor Program

Food Safety

Community Food Advisor

Workbook Materials

- Food Safety Presentation Notes
- Food Safety Quiz
- Food Safety Quiz Answers
- Additional Activities and Resources
- High Risk – Low Risk Foods Activity Sheet
- Can Your Kitchen Pass a Food Storage Test Activity Sheet
- How Did You Do?
- Food Safety: Frequently Asked Questions

Food Safety Quiz

In the home, food safety is important when: storing food, handling food and preparing food (cooking). See how well you are doing in each…take this quiz.

1. What are symptoms of a food borne illness?
   a) vomiting
   b) abdominal cramps
   c) fever
   d) all of the above

2. Can you tell by the look or smell if a food may cause food borne illness?
   a) No b) Yes

3. Always wash your hands:
   a) before and after preparing food
   b) repeatedly while you prepare food
   c) before eating
   d) all of the above

4. What kind of cutting board is best for cutting meat and poultry?
   a) wood
   b) plastic
   c) either of the above as long as you keep it clean, sanitized and in good condition

5. After using a cutting board and knife to cut up raw meat, poultry or fish, what must you do before cutting cabbage for a salad?
   a) wipe the board and knife off with a damp sponge
   b) wash the board and knife with soap and water, and sanitize the board and knife with a mild bleach solution
   c) use another clean cutting board and knife
   d) both b) and c) are correct

6. Wiping cloths and sponges can transfer food poisoning bacteria to surfaces.
   a) True b) False

7. In what temperature range do bacteria grow rapidly (the food temperature "Danger Zone")?
   a) 4ºC to 60ºC (40ºF to 140ºF)
   b) 15ºC to 80ºC (60ºF to 180ºF)
   c) 27ºC to 100ºC (80ºF to 212ºF)

8. How soon leftovers should be refrigerated or frozen?
   a) within 2 hours
   b) within 3 hours
   c) within 12 hours
   d) within 24 hours

9. What is the recommended temperature for your refrigerator?
   a) -18ºC (0ºF)
   b) 4ºC (40ºF)
   c) 7ºC (45ºF)
   d) 10ºC (50ºF)

10. The safest place to thaw frozen foods is on the kitchen counter.
    a) True b) False

11. Is it safe to leave foods such as meat, poultry, fish, eggs and dairy foods at room temperature for longer than TWO hours?
    a) Yes b) No

Food Safety Quiz Answers

1. (d) Food borne illness can easily be mistaken for other illnesses. Many fail to recognize the symptoms. The Government of Canada estimates that there are about 11 million cases of foodborne illness in Canada every year (canadian Food Inspection AgencySource: www.inspection.gc.ca/food/consumer-centre/fact-sheets/food-poisoning/eng/1331151916451/1331152055552, 2012)

2. (a) If you answered no…congratulations! Most people believe that unsafe foods give off odours and look spoiled. A food can look and smell fine but contain harmful bacteria that can cause food borne illness. **When in doubt, throw it out!**

3. (d) Hand washing helps prevent the spread of harmful bacteria. Unwashed hands can spread harmful bacteria to food, to equipment and surfaces and to people, including you. Good hand washing technique is more important than what product you use to wash your hands.

4. (c) The most important thing is to keep your cutting board clean and sanitized. Plastic boards can be safely put through the dishwasher. Wooden boards should be sanitized with a mild bleach solution. Consider having separate cutting boards for meat and vegetables. Throw away any board with deep knife scars.

5. (d) Just wiping off or rinsing off a cutting board and knife is not good enough to get rid of any bacteria. The best method to keep your cutting board and knife safe is to first wash them with a warm water and soap solution. Then rinse off the soap and loosened dirt with clean water. Next, sanitize the board and knife with a mild bleach solution. Finally, allow them to air dry.

6. (a) Wiping cloths and sponges need to be clean and sanitized too. Tiny particles of food easily get trapped in wiping cloths and sponges and provide a warm, moist environment for bacteria to grow. Wash wiping cloths and sponges often and soak in a mild bleach solution. Replace wiping cloths and sponges regularly.

7. (a) The food Temperature Danger Zone is the range of temperatures over which bacteria grow rapidly. The food safety rule is: keep hot foods **hot at 60ºC (140ºF)** or higher, and keep cold foods **cold at 4ºC (40ºF)** or colder.

8. (a) Leftovers should be refrigerated or frozen within 2 hours of cooking to prevent bacteria from growing.

9. (b) Harmful bacteria will not grow well at temperatures of 4ºC (40ºF) or lower. The freezer temperature should be -18ºC (OºF) or lower. Bacteria growth stops in the freezer. (Note: freezing temperatures do not *kill* bacteria.)

10. (b) Thaw in the refrigerator, microwave, or under cold running water.

11. (b) Protein foods - such as meat, poultry, fish, eggs and dairy foods, should not be at room temperature for more than TWO hours. Bacteria can double in number every 20 minutes.

Session 5
Food Safety

Additional Activities and Resources

Additional Activities

- ☐ Complete the High Risk – Low Risk Foods Activity Sheet.
- ☐ Complete the Can Your Kitchen Pass a Food Storage Test Activity Sheet

Online Resources

- ☐ Fight BAC!™ www.canfightbac.org/
- ☐ Food Safety Tips, Canadian Food Inspection Agency www.inspection.gc.ca/food/consumer-centre/food-safety-tips/eng/1304966258994/1304966421147

Readings

- ☐ Resource Binder:
  - Section 5: Food Safety
  - Section 6: Food Storage and Preservation

High Risk – Low Risk Foods

Identify the foods from the list below that are most associated with food borne illness. These are considered 'High Risk' Foods. Identify the foods that are not often associated with food borne illness. These are considered 'Low Risk Foods. Write the foods in the chart below.

Hint: Bacteria like warm, moist foods that are high in protein.
Bacteria grow very quickly in foods left in the danger zone.

<u>Grain Products</u>

Cooked oatmeal
Crackers
Cooked rice

<u>Vegetables and Fruit</u>

Raw carrots
Raisins
Sprouts

<u>Foods to Limit</u>

Ranch salad dressing
Gravy
Cream cheese
Cookies
Butter
Jam
Pickles
Spices

<u>Milk and Alternatives</u>

Custard
Yogurt
Powdered Milk
Cheese

<u>Meats and Alternatives</u>

Raw steak
Chicken stir fry
Baked beans
Bologna
Tuna salad
Peanut butter
Pepperoni

High Risk Foods	Low Risk Foods

Can Your Kitchen Pass a Food Storage Test?

The proper storage of food in the home is essential to maintain the product safety and quality. Would your kitchen pass inspection? Prove it to yourself by being your own inspector. Take a tour of your kitchen and indicate with a check (✓) those good storage habits which you practice.

- ☐ 1. Food is not stored underneath the sink or in cabinets through which water, drain or heating pipes pass.
- ☐ 2. Food is not stored above the stove or refrigerator.
- ☐ 3. Spices are stored in a closed cupboard or drawer, not on the back of the stove.
- ☐ 4. All flour, sugar, rice and other dried foods are stored in sealed food grade containers or food grade plastic bags.
- ☐ 5. Boxes of cereals and crackers are tightly closed.
- ☐ 6. Cans are rotated - first put in the cupboard are the first used.
- ☐ 7. Tops of cans are free of dust.
- ☐ 8. Eggs are stored in their carton, not on the refrigerator door.
- ☐ 9. The refrigerator and freezer each have a thermometer.
- ☐ 10. The refrigerator has no crumbs or food spills.
- ☐ 11. Meat is thawed on the bottom shelf of the refrigerator.
- ☐ 12. Rubber insulation around the refrigerator door is flexible and holds a good seal.

How Did You Do?

1. Food should never be stored in these cabinets. There is the possibility of attracting insects or rodents because of openings difficult to seal. Possible leakage from pipes can cause cans to rust or become overheated. Household chemicals and food should never be stored together to avoid any possible danger of consuming household products.

2. Food stored above the stove or refrigerator will not keep well because of high heat and humidity.

3. Heat and humidity will cause herbs and spices to lose flavour. Light causes spices to fade.

4. Use metal, glass and plastic containers with tight-fitting lids to help control exposure of food to moisture, air and insects.

5. Take time to reseal packages carefully after use to preserve freshness by controlling exposure to moisture, air and insects.

6. Food should be arranged so the oldest cans are used first. This is important for safety as well as flavour, texture and nutrition. Check to make sure cans do not leak or bulge.

7. Any dust or foreign material on top of cans will be pressed into the food during opening, causing possible contamination.

8. Eggs should be stored in their carton to prevent moisture loss and odour absorption. Moving eggs from their carton increases the chance of accidentally cracking the shells and transferring bacteria from your hands to the shells.

9. A thermometer is required to monitor temperature. The refrigerator should be set between 1 and 4°C (34°-40°F). The freezer should be set at –18°C or lower (0°F). It should never rise above -15 degrees C (5°F).

10. The refrigerator should be cleaned regularly to remove crumbs, spills and spoiled food so bacteria can't be passed to other foods.

11. Meat should not be thawed on higher refrigerator shelves because drippings can contaminate other foods, especially foods which will not be further cooked.

12. Stiff, cracked and damaged rubber insulation (gaskets) allows air seepage and should be repaired. Other signs that gasket is leaking include door not staying shut; fridge runs frequently and temperature in fridge warmer than expected.

Food Safety

Frequently Asked Questions

Q. Which is better … wood or plastic cutting boards?

A. Either is fine as long as you keep them clean and sanitized between uses. Keep them in good condition. When the boards become scarred or get deep cuts, they can hide food debris and bacteria. You should buy a new one.

Q. Why is it important to have two cutting boards?

A. Prevent cross contamination by using one cutting board for raw meats only and a different one for all other foods.

Q. What about antibacterial soap?

A. In general, antibacterial soaps are not necessary. Thorough washing with water and soap is best.

Q. What about alcohol-based hand sanitizers?

7. A. These are great when soap and water is not available (for example, when you are camping, at a picnic, at soccer games, etc.). They should not be used as a replacement for soap and water. Good handwashing technique is more important than what product you use to wash your hands.

Q. Why do frozen meat and poultry sometimes have dried-out white patches?

A. This is “freezer burn” and is caused by poor packaging and/or leaving foods in the freezer too long. Freezer-burn meats and poultry are safe to eat, but they may be less juicy and tender.

Q. Why is it safe to eat steaks cooked medium rare or medium, but not hamburgers cooked that way?

A. E.coli 0157: H7 bacteria can live in cattle's digestive systems. During processing, meat can be contaminated with the bacteria. With steaks, E.coli 0157: H7 is on the surface of the meat and is easily killed when the meat cooks on a hot grill. When meat is ground, however, the bacteria can be mixed throughout the hamburger, where it is harder to destroy. Hamburgers often look done before the meat is thoroughly cooked. The best way to be sure the meat is cooked thoroughly is to use a meat thermometer.

In 2012, there was an outbreak of food borne illness due eating mechanically tenderized steaks which were not thoroughly cooked. Health Canada is currently reviewing the recommendation regarding cooking mechanically tenderized meat. This is the statement from Health Canada December 21, 2012 downloaded from http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/_2012/2012_158-eng.php

> Canadians who are at greater risk of complications from foodborne illness, and their caregivers, should be particularly cautious about making sure any mechanically tenderized beef products are thoroughly cooked and handled safely. These groups include seniors, pregnant women, young children and those with weakened immune systems.

Q. Who is responsible for ensuring that the food we eat is safe?

A. Everyone involved in the food chain, from the primary producer (the farmer) to the consumer has a role to play in ensuring the safety of the food we eat. The food industry and government work together to deliver food that is safe to consumers. The important, and sometimes forgotten, role of the consumer is to maintain the safety of that food by using safe food handling practices.

Q. How can I keep lunches safe?

A. Here are some tips for keeping your lunch safe:

- bring an insulated container with a frozen ice pack to keep food cold.
- freezing juice boxes will also keep your lunch cold.
- if you bring hot food for lunch, use a thermos bottle to keep it warm.
- wash fresh fruits and vegetables before packing them into your lunch.