Wash Hands and Surfaces Often

Foodborne bacteria can’t be seen, tasted or smelled. These microorganisms can make you sick if ingested, and they spread through contact with cutting boards, utensils, countertops and food – so ready, set, CLEAN!

Wash your hands with warm water and soap for at least 20 seconds!

How?
- Wet your hands with warm running water and apply soap.
- Rub your hands together to make a lather and scrub them well. Be sure to scrub the backs of your hands, between your fingers and under your nails.
- Continue rubbing hands for at least 20 seconds – about the time it takes to sing the “Happy Birthday” song twice.
- Rinse your hands well under running water.
- Dry your hands using a clean cloth or paper towel.

When?
- Before eating food
- Before, during and after preparing food
- Before and after treating a cut or wound
- Before and after caring for someone who is sick
- After handling uncooked eggs or raw meat, poultry or seafood (or their juices)
- After blowing your nose, coughing or sneezing
- After touching an animal or animal waste
- After touching garbage
- After using the toilet

DID YOU KNOW?
In a recent study, 65 percent of consumers did not wash their hands before starting meal preparation.


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We develop and promote effective education programs to reduce foodborne illness risk for consumers.
Clean Surfaces

Keep Your Scene Clean
Bacteria that can cause illness can survive in many places around your kitchen. **Keep countertops and other kitchen surfaces clean** to prevent cross-contamination.

- **CLEAN SURFACES** with hot water and soap to remove dirt and debris. Do this after preparing each food item and before going on to the next food item.
- **Keep your fridge clean, too:** Wipe spills immediately and regularly clean the inside with hot water and liquid soap. Dry with paper towels.
- After cleaning, you may **SANITIZE SURFACES** as an extra precaution to kill germs. Use a solution of 1 tablespoon of unscented liquid chlorine bleach and 1 gallon of water. Apply to surfaces, and allow to stand for several minutes. Air dry or pat dry with fresh paper towels.

Rinse Produce

Rinse fresh fruits and veggies under running water just before eating, even if you plan to cut or peel them, because bacteria can spread from the outside to the inside during cutting or peeling.

- Firm-skinned fruits and veggies should be rubbed by hand or scrubbed with a clean brush while rinsing under running water.
- Packaged fruits and veggies labeled “ready-to-eat,” “washed” or “triple-washed” should not be washed. Doing so may increase the risk for cross-contamination.
- Dry fruits and veggies with a clean cloth or paper towel.
- Do not use soap or bleach to wash produce. These products are not intended for consumption.
- For more information, check out our ProducePro fact sheet at fightbac.org.
Separate Raw Meat, Poultry, Seafood and Eggs from Other Foods

Harmful bacteria from raw meat, poultry, seafood and eggs can spread to other foods if they are not separated properly. This is especially risky when bacteria are spread to foods that are eaten raw, such as fresh fruits and vegetables.

Separate and prevent cross-contamination by taking these steps:

In the Grocery Store
- Separate raw meat, poultry, seafood and eggs from other foods in your shopping cart. Place these products in separate plastic bags to prevent juices from getting on other foods.
- If you use reusable grocery bags, wash them frequently in the washing machine.

At Home
- Separate raw meat, poultry, seafood and eggs from other foods in the refrigerator. Place them in containers or sealed plastic bags on the bottom shelf of the refrigerator.
- If you are not planning to use these foods within a few days, freeze them.

Be a ProducePro
- Keep fresh fruits and vegetables separate from raw meat, poultry, seafood and eggs. For more information on safely handling produce, check out our ProducePro fact sheet at fightbac.org.

Get it Straight – it’s Safer to Separate

Cross-contamination is how bacteria can be spread. Improper handling of raw meat, poultry, seafood and eggs can create an inviting environment for cross-contamination. As a result, harmful bacteria can spread to food and throughout the kitchen.

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- Keep fresh fruits and vegetables separate from raw meat, poultry, seafood and eggs. For more information on safely handling produce, check out our ProducePro fact sheet at fightbac.org.
Use Separate Cutting Boards, Plates and Utensils

Use separate cutting boards:

• One for fresh produce
• Another one for raw meat, poultry and seafood

Use separate plates and utensils:

• For cooked foods
• For raw foods

Never place cooked food back on a plate that previously held raw meat, poultry, seafood or eggs. **Wash the plate with hot water and soap** before using with other foods.

Safely Marinate

Sauce that is used to marinate raw meat, poultry or seafood should not be used on cooked food unless it is boiled first to destroy any harmful bacteria.

**Reminder: Wash Hands!**

Washing hands with soap and warm water before and after handling raw food is the best way to reduce the spread of germs that can make you sick.
Cook to Safe Temperatures

Safely cooking food is a matter of temperature. Foods need to reach a high enough internal temperature to kill bacteria that can cause foodborne illness.

Color is Not a Reliable Indicator of Safety
- Color and texture are not reliable indicators of whether food has reached a high enough internal temperature to destroy pathogens.
- According to USDA research, 1 in 4 hamburgers turns brown before reaching a safe internal temperature.
- The best way to ensure safety is to use a food thermometer.

Check with a Food Thermometer
- Use a food thermometer to ensure that meat, poultry, seafood, egg products, leftovers and casseroles are cooked to safe temperatures to destroy any harmful bacteria.
- Compare your thermometer reading to the chart to make sure food has been cooked to a safe temperature.
- Food thermometers should be placed in the thickest part of food, making sure not to touch bone, fat or gristle.
- Clean your food thermometer with hot water and soap after each use.
- For information about calibrating your food thermometers, check out the Thermometers and Food Safety Web page from the USDA Food Safety and Inspection Service.
Microwave to Safe Temperatures

Read and follow package cooking instructions.
• Most prepared convenience foods are not ready to eat right out of the container.

Know when to use a microwave or conventional oven.
• Sometimes proper cooking requires the use of a conventional oven, not a microwave.
• Some convenience foods may be shaped irregularly or are thicker in some areas and may not cook evenly in a microwave oven. It is important to use the appliance and the method recommended on the label.

Know your microwave wattage before microwaving food.
• If your microwave’s wattage is lower than the wattage mentioned in the label’s instructions, it will take longer than the instructions say to cook the food to a safe internal temperature.

Always use a food thermometer to ensure a safe internal temperature.
• Use a food thermometer to test food in several places to make sure it has reached a safe internal temperature.
• For more information on microwaving foods to safe temperatures, check out the Cook it Safe! fact sheet at fightbac.org.

Important Cooking Tips to Remember: Entertaining and On-the-Go Foods
- When entertaining and serving hot food buffet-style, use a chafing dish, warming tray or slow-cooker to keep food hot.
- When bringing hot foods to a party or traveling with hot foods, transport them in insulated thermal containers. Keep containers closed until serving time.

SAFE MINIMUM INTERNAL TEMPERATURES

GUIDELINES FOR SEAFOOD

<table>
<thead>
<tr>
<th>Fish, shellfish, crustaceans</th>
<th>Pearly and opaque</th>
<th>Meaty white and opaque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crustaceans and shellfish</td>
<td>Shells open during cooking</td>
<td>Shells should not be open</td>
</tr>
<tr>
<td>Shrimp, lobster, crabs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Download and print this chart here.
Safe Cooking Guidelines

**SAFE MINIMUM INTERNAL TEMPERATURES**

as measured with a food thermometer

<table>
<thead>
<tr>
<th>Food Type</th>
<th>Minimum Internal Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef, pork, veal and lamb (roast, steaks and chops)</td>
<td>145˚ F with a three-minute “rest time” after removal from the heat source</td>
</tr>
<tr>
<td>Ground meats</td>
<td>160˚ F</td>
</tr>
<tr>
<td>Poultry (whole, parts or ground)</td>
<td>165˚ F</td>
</tr>
<tr>
<td>Eggs and egg dishes</td>
<td>160˚ F, but cook eggs until both the yolk and the white are firm; scrambled eggs should not be runny</td>
</tr>
<tr>
<td>Leftovers</td>
<td>165˚ F</td>
</tr>
<tr>
<td>Finfish</td>
<td>145˚ F</td>
</tr>
</tbody>
</table>

**GUIDELINES FOR SEAFOOD**

<table>
<thead>
<tr>
<th>Seafood Type</th>
<th>Texture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shrimp, lobster, crabs</td>
<td>Flesh pearly and opaque</td>
</tr>
<tr>
<td>Clams, oysters and mussels</td>
<td>Shells open during cooking</td>
</tr>
<tr>
<td>Scallops</td>
<td>Milky white, opaque and firm</td>
</tr>
</tbody>
</table>

**THE FOUR WAYS TO FIGHT BAC!**

<table>
<thead>
<tr>
<th>Clean</th>
<th>Separate</th>
<th>Cook</th>
<th>Chill</th>
</tr>
</thead>
</table>

**Partner for Food Safety Education, 2016**

We develop and promote effective education programs to reduce foodborne illness risk for consumers.
Temperatures of 40˚F or below will slow the growth of foodborne bacteria, which can grow rapidly at warmer temperatures. It’s important to chill foods promptly and properly to prevent the growth of harmful microbes.

Keep Home Refrigerator at 40˚F or Below

- A constant home refrigerator temperature of 40˚F or below is one of the most effective ways to reduce the risk of foodborne illness and slow the growth of harmful bacteria.
- Use a refrigerator thermometer to ensure the temperature is consistently 40˚F or below. Refrigerator thermometers are tools that stay in your refrigerator to display actual temperatures (separate from refrigerator dials).
- Don’t go too low: As temperatures approach 32˚F, ice crystals can form and lower the quality of foods.
- Keep your refrigerator clean, too: To prevent the spread of harmful bacteria, wipe spills immediately. Regularly clean the inside of your fridge with hot water and liquid soap, and dry with a clean cloth or paper towels.
- For more information on safe refrigeration temperatures, check out our Go 40˚F or Below fact sheet and special brochures for expecting mothers and seniors at fightbac.org.

1. Follow thermometer manufacturer instructions for ideal placement.
2. Make sure the thermometer reads 40˚F or below. Some events may cause temporary readings over 40˚F, such as:
   - Initial placement
   - Door open for an extended time
   - Hot foods recently placed inside
   - Automatic defrost cycles: Check temperature as soon as it turns on, when it’s at its highest temp.
Refrigerate Foods Within Two Hours

- Refrigerate or freeze perishables, prepared foods and leftovers within **two hours** of purchase or use. If the temperature is 90 °F or above, cut this time down to one hour.
- Separate large amounts of leftovers into **shallow containers** for quicker cooling.
- **Do not overstuff your refrigerator.** Cold air must circulate to keep food safe.
- **Know when to toss:** you can’t tell by looking or smelling whether harmful bacteria have started growing in your leftovers or refrigerated foods. Check out the **Safe Storage Times** chart for storage guidelines of different foods.

**Hit the Road Cold**
- When traveling, be aware that time, temperature and a cold source are key.
- Always use ice or ice packs. A full cooler will maintain cold temperatures longer than a partially filled one.
- For more information, check out our **Food Safety on the Move** fact sheet.

**Thaw Foods Properly**

Never thaw food at room temperature – harmful bacteria can multiply rapidly at room temperature. Choose one of these options to thaw food safely:

- **Thaw food in a refrigerator.** This is the safest way to thaw meat, poultry and seafood. Place the frozen food on a plate or pan to catch any juices that may leak.
- **Thaw in cold water** if food will be cooked immediately. Replace the water every 30 minutes so the food continues to thaw in cool water.
- **Thaw in the microwave** if food will be cooked immediately. Follow the instructions in your owner’s manual for thawing.
- If you don’t have time to thaw food: It is safe to **cook foods from a frozen state**, but the cooking will be approximately **50 percent longer** than fully thawed meat or poultry. Use a food thermometer to ensure food is cooked to safe internal temperature.

**Storage Times for the Refrigerator and Freezer**

These short but safe time limits for home-refrigerated foods will keep them from spoiling or becoming dangerous to eat. The guidelines for freezer storage are for quality only. Frozen foods remain safe indefinitely.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>FOOD</th>
<th>REFRIGERATOR (40˚F OR BELOW)</th>
<th>FREEZER (0˚F OR BELOW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salads</td>
<td>Egg, chicken, lamb, beef, cold cooked salads</td>
<td>3-5 days</td>
<td>Does not freeze well</td>
</tr>
<tr>
<td>Hot dogs</td>
<td>Opened package</td>
<td>7 days</td>
<td>3-4 months</td>
</tr>
<tr>
<td>Laundry pad</td>
<td>Opened package or duct sealed</td>
<td>3-5 days</td>
<td>3-4 months</td>
</tr>
<tr>
<td>Bacon and sausage</td>
<td>Pickle, sausages, hot dogs, chicken, beef</td>
<td>7 days</td>
<td>1 month</td>
</tr>
<tr>
<td>Ham, ham, turkey, pork, lard, and fish</td>
<td>Opened package or duct sealed</td>
<td>3-5 days</td>
<td>3-4 months</td>
</tr>
<tr>
<td>Fresh beef, veal, lamb and pork</td>
<td>Steaks, chops, roasts</td>
<td>3-5 days</td>
<td>6-12 months</td>
</tr>
<tr>
<td>Fresh poultry</td>
<td>Chicken or turkey, whole</td>
<td>1-2 days</td>
<td>1 year</td>
</tr>
<tr>
<td>Fresh poultry</td>
<td>Chicken or turkey, pieces</td>
<td>1-2 days</td>
<td>9 months</td>
</tr>
<tr>
<td>Snaps and beans</td>
<td>Vegetables or meat baked</td>
<td>1-2 days</td>
<td>3-6 months</td>
</tr>
<tr>
<td>Soufflés</td>
<td>Cooked meat or poultry, chicken nuggets or pizza</td>
<td>2-4 days</td>
<td>3-6 months</td>
</tr>
</tbody>
</table>

**Download and print this chart here.**

**The Four Ways to Fight BAC!**

**Chill**

**FightBAC.ORG**

@Fight_BAC

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### Storage Times for the Refrigerator and Freezer

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<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>FOOD</th>
<th>REFRIGERATOR (40˚ F OR BELOW)</th>
<th>FREEZER (0˚ F OR BELOW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salads</td>
<td>Egg, chicken, ham, tuna and macaroni salads</td>
<td>3-5 days</td>
<td>Does not freeze well</td>
</tr>
<tr>
<td>Hot dogs</td>
<td>Opened package</td>
<td>1 week</td>
<td>1-2 months</td>
</tr>
<tr>
<td></td>
<td>Unopened package</td>
<td>2 weeks</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Luncheon meat</td>
<td>Open package or deli sliced</td>
<td>3-5 days</td>
<td>1-2 months</td>
</tr>
<tr>
<td></td>
<td>Unopened package</td>
<td>2 weeks</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Bacon and sausage</td>
<td>Bacon</td>
<td>7 days</td>
<td>1 month</td>
</tr>
<tr>
<td></td>
<td>Sausage, raw — from chicken, turkey, pork, beef</td>
<td>1-2 days</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Hamburger and other ground meats</td>
<td>Hamburger, ground beef, turkey, veal, pork, lamb and mixtures of these</td>
<td>1-2 days</td>
<td>3-4 months</td>
</tr>
<tr>
<td>Fresh beef, veal, lamb and pork</td>
<td>Steaks</td>
<td>3-5 days</td>
<td>6-12 months</td>
</tr>
<tr>
<td></td>
<td>Chops</td>
<td>3-5 days</td>
<td>4-6 months</td>
</tr>
<tr>
<td></td>
<td>Roasts</td>
<td>3-5 days</td>
<td>4-12 months</td>
</tr>
<tr>
<td>Fresh poultry</td>
<td>Chicken or turkey, whole</td>
<td>1-2 days</td>
<td>1 year</td>
</tr>
<tr>
<td></td>
<td>Chicken or turkey, pieces</td>
<td>1-2 days</td>
<td>9 months</td>
</tr>
<tr>
<td>Soups and stews</td>
<td>Vegetable or meat added</td>
<td>3-4 days</td>
<td>2-3 months</td>
</tr>
<tr>
<td>Leftovers</td>
<td>Cooked meat or poultry</td>
<td>3-4 days</td>
<td>2-6 months</td>
</tr>
<tr>
<td></td>
<td>Chicken nuggets or patties</td>
<td>3-4 days</td>
<td>1-3 months</td>
</tr>
<tr>
<td></td>
<td>Pizza</td>
<td>3-4 days</td>
<td>1-2 months</td>
</tr>
</tbody>
</table>

**THE FOUR WAYS TO FIGHT BAC!**

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[@Fight_BAC](#)
THE CORE FOUR PRACTICES – FOOD SAFETY

Date of Presentation: _____________________

Presenter: ______________________________

Attendance Roster:

___________________________________________________________________
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OBJECTIVES

- Identify the four practices that can reduce the risk of foodborne illness.
- Identify the ways to avoid cross-contamination of bacteria in food.
- Identify the final cooking temperature recommended for meat.
- Identify the proper chill temperature for food.
THE CORE FOUR PRACTICES – FOOD SAFETY

PRE-TEST

1. You must wash your hands for 15 seconds to kill bacteria.
   True          False

2. You can store raw meat and vegetables in the same drawer of the refrigerator?
   True          False

3. Once ground beef turns brown it is completely cooked.
   True          False

4. As long as food is cold in the refrigerator it is safe.
   True          False
THE CORE FOUR PRACTICES – FOOD SAFETY

Master PRE-TEST

1. You must wash your hands for 15 seconds to kill bacteria.
   True    False

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   True    False

3. Once ground beef turns brown it is completely cooked.
   True    False

4. As long as food is cold in the refrigerator it is safe.
   True    False
1. The Core Four Practices are
   __________________  _____________  __________________  __________________  __________________

2. How long must you wash your hands?
   a. 15 seconds
   b. 20 seconds
   c. 10 seconds
   d. None of the above

3. You can use the same cutting board for vegetables and meat.
   True  False

4. Ground beef must be cooked to what temperature?
   a. When it turns brown  c. 140 degrees F
   b. 155 degrees F  d. 160 degree F

5. Refrigerators must be kept at a constant temperature of _______?
   a. 32 degrees F  c. 40 degrees F
   b. 45 degrees F  d. As long as it is cold it is okay.
6. The Core Four Practices are
    CLEAN    SEPARATE    COOK    CHILL

7. How long must you wash your hands?
   e. 15 seconds
   f. **20 seconds**
   g. 10 seconds
   h. None of the above

8. You can use the same cutting board for vegetables and meat.
   True               False

9. Ground beef must be cooked to what temperature?
   c. When it turns brown    c. **140 degrees F**
   d. **155 degrees F**       d. **160 degree F**

10. Refrigerators must be kept at a constant temperature of ________?
    c. **32 degrees F**       c. **40 degrees F**
    d. **45 degrees F**       d. As long as it is cold it is okay.
THE CORE FOUR PRACTICES – FOOD SAFETY

CERTIFICATION OF COMPLETION

Name: _______________________________________

Completed the “The Core Four Practices – Food Safety” In-service successfully.

Date: __________________

Name of Presenter: ________________________________________