The 4 Cs of Food Safety!

Clean, Cook, Combat Cross-Contamination, and Chill

**CLEAN | COOK | SEPARATE | CHILL**

**Food Safety Concerns You!**

Everyone shops, prepares, and eats food. That's why it's so important to follow the basics of food safety. Harmful bacteria that may be present in food can cause food borne illness when the food is eaten.

All along the food chain, food safety experts are working to keep our food safe on the farm . . . through the processing plant . . . during transportation . . . and at the supermarket and restaurant (see the Farm-to-Table illustration). Once you take food home from the supermarket and restaurant, you also have an important role to play.

Food borne illness can affect anyone at any time, but certain people are more likely to get sick from food borne bacteria. And once they’re sick, they face the risk of serious health problems, even death. Such at-risk people include: pregnant women, young children, people with chronic illnesses and weakened immune systems, and older people. Also, underlying illnesses such as diabetes, some cancer treatments, and kidney disease may increase a person’s risk of food borne illness.

To fight bacteria that cause food borne illness, just follow these 4 Fight Steps to Food Safety (also known as the 4 Cs of Food Safety):

- Clean
- Cook
- Separate (Combat Cross-Contamination)
- Chill
CLEAN

Wash hands and surfaces often

You can't see, taste, or smell them. They're sneaky little critters, and they can spread throughout the kitchen and get onto cutting boards, utensils, sponges, countertops, and food. They're food borne bacteria and if eaten, they can cause food borne illness.

Use these TIPS to keep your hands, surfaces, and utensils squeaky clean!

Wash Up!

- Make sure there's hand washing soap and paper towels or a clean cloth at every sink in your home.
- Wash your hands with hot, soapy water (for at least 20 seconds) before and after handling food and after using the bathroom, changing diapers, or handling pets. Thoroughly scrub hands, wrists, fingernails, and in between fingers. Rinse and dry hands with paper towels or a clean cloth.

Fruits & Veggies

- Rinse raw produce under running water. Don't use soap, detergents, or bleach solutions. For thick or rough-skinned vegetables and fruits, use a small vegetable brush to remove surface dirt. Try to cut away any damaged or bruised areas on produce. Bacteria can thrive in these places.

Surface Cleaning

- Consider using paper towels to clean up kitchen surfaces and throw the germs away with the towels. If you use cloth towels, launder them often, using hot water. Note: Don't dry your hands with a towel that was previously used to clean up raw meat, poultry, or seafood juices.
- Wash your cutting boards, dishes, utensils, and countertops with hot, soapy water after preparing each food item and before you go on to the next food. Periodically, kitchen sanitizers can be used for added protection against bacteria. You can also use one teaspoon of liquid chlorine bleach per quart of clean water to sanitize surfaces. The bleach solution needs to sit on the surface to be sanitized for about 10 minutes to be effective.
- Replace excessively worn cutting boards (including plastic, non-porous acrylic, and wooden boards). Bacteria can grow in the hard-to-clean grooves and cracks.
- In your refrigerator, wipe up spills immediately, clean refrigerator surfaces with hot, soapy water, and, once a week, throw out perishable foods that should no longer be eaten.
- Keep pets off kitchen counters and away from food.

DID YOU KNOW?

20% of consumers don't wash hands and kitchen surfaces before preparing food. Clean hands and surfaces are your first step in safe food handling.
Cooking food safely is a matter of degrees! Food safety experts agree that foods are properly cooked when they're heated for a long enough time and at a high enough temperature to kill harmful bacteria that cause foodborne illness. This temperature can vary from food to food, too.

The best way to keep your food safe is to use these "hot" food safety TIPS.

Cook It Right . . .
Color is not a sure indicator of whether food is safe to eat. The only way to know that meat, poultry, casseroles, and other foods are properly cooked all the way through is to use a clean food thermometer.

Ground Beef
Oftentimes, when meat is "ground up" to make hamburger, bacteria that may have been present on the surface of the meat can end up inside the burger. When this happens, bacteria are less likely to be killed by cooking if the proper temperature is not achieved.

Cook ground beef to at least 160° F (71° C). Use a food thermometer to check. The Centers for Disease Control and Prevention link eating undercooked, pink ground beef with a higher risk of illness. If a thermometer is not available, do not eat ground beef that is still pink inside.

Meat and Poultry
Cook roasts and steaks to an internal temperature of at least 145° F (63° C). Poultry should be cooked to a minimum internal temperature of 165° F (74° C). Consumers may wish to cook poultry to a higher temperature for personal preference.

Seafood
Cook fish until it's opaque and flakes easily with a fork.
**Eggs**
Cook eggs until the yolks and whites are firm. Don't use recipes in which eggs remain raw or partially cooked, unless you use pasteurized eggs.

**Leftovers**
Leftovers should be reheated to 165° F (74° C). Bring sauces, soups, and gravies to a boil.

**Microwave Musts**
We all enjoy the benefits of using the microwave for cooking and reheating foods in minutes, even seconds. However, microwaves often cook food unevenly, thus creating hot and cold spots in the food.

Bacteria can survive in the cold spots. This uneven cooking occurs because the microwaves bounce around the oven irregularly. Microwaves also heat food elements like fats, sugars, and liquids more quickly than carbohydrates and proteins. Extra care must be taken to even out the cooking so that harmful bacteria is destroyed.

**Food Heating Chart**

**DID YOU KNOW?**
In terms of saving cooking time, the development of the microwave oven has been a tremendous asset for American households. Today, an estimated 90% of households in the United States have microwave ovens.
**It's a Matter of Degrees!**

Use a food thermometer to make sure foods have been properly cooked to a safe internal temperature.

*An added plus - taking the temperature assures that you won't overcook your food!*

*Here are several types of thermometers that are available.*

<table>
<thead>
<tr>
<th>Dial Oven-Safe:</th>
<th>Dial Instant-Read: This thermometer is used to periodically check the temperature. It's not designed to stay in the food during cooking. When you think food is cooked to the correct temperature, check it with the instant-read thermometer. Insert the thermometer into the thickest part of the food, to the point marked on the probe - usually to a depth of 2 inches. About 15 to 20 seconds are required for the temperature to be accurately displayed. An instant-read thermometer can be used with thin foods, such as chicken breasts or thin hamburger patties - simply insert the probe sideways, making sure the tip of the probe reaches the center of the meat.</th>
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<tbody>
<tr>
<td><strong>Dial Instant-Read:</strong></td>
<td><strong>Digital Instant-Read:</strong> This thermometer is used to periodically check the temperature. It does not stay in the food during cooking. Check the temperature when you think the food is cooked. The advantage of the digital thermometer is that the heat-sensing device is in the tip of the probe. Place the tip of the probe in the center of the thickest part of the food at least 1/2 inch deep. About 10 seconds are all that's required for the temperature to be accurately displayed. The Digital Instant-Read thermometer is good to use for checking the temperature of a thick food like turkey or a thick hamburger patty. Insert the probe from the top or sideways to a depth of 1/2 inch.</td>
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<td><strong>Pop-up Timers:</strong> These are reliable within 1 to 2 degrees, but it's best to check using a food thermometer. 1 out of every 4 hamburgers turns brown before it's been cooked to a safe internal temperature. Color is not a sure indicator of whether food is safe to eat. Always use a food thermometer.</td>
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**Dial Oven-Safe:**
This type of thermometer is inserted into the food at the beginning of the cooking time and remains in the food throughout the cooking.

By checking the thermometer as the food cooks, you will know exactly when the meat is properly cooked. This oven-safe thermometer is used for thick cuts of meat, such as roasts or turkeys. It's not appropriate for thin foods, like boneless chicken breast, because the temperature-sensing coil on the stem is between 2 and 2 1/2 inches long and the stem is relatively thick.
COMBAT CROSS-CONTAMINATION

Separate, Don't Cross-Contaminate

Did you know that improper handling of raw meat, poultry, and seafood can set the stage for cross-contamination? As a result, bacteria can spread to food and throughout the kitchen.

Here's how to prevent harmful bacteria from
S-P-R-E-A-D-I-N-G!

Safely Separate

- Separate raw meat, poultry, and seafood from other foods in your grocery store shopping cart and in your refrigerator.

Take Two

- If possible, use one cutting board for raw meat products and another one for fresh fruits and vegetables.

Lather Up

- Always wash hands, cutting boards, dishes, and utensils with hot, soapy water after they come in contact with raw meat, poultry, seafood, eggs, and unwashed fresh produce.

Clean Your Plate

- Place cooked food on a clean plate. If you put cooked food on an unwashed plate that previously held raw meat, poultry, or seafood, bacteria from the raw food could contaminate the cooked food.

Seal It

- To prevent juices from raw meat, poultry, or seafood from dripping onto other foods in your refrigerator, place these raw foods in sealed containers or plastic bags.

Marinating Mandate

- Don't use sauce that was used to marinate raw meat, poultry, or seafood on cooked foods, unless it is boiled before applying. Never taste marinade or sauce that was used to marinate raw meat, poultry, or seafood.
Keep perishables in the refrigerator! At room temperature, pathogenic bacteria in food can double in number every 30 to 40 minutes. The more bacteria there are, the greater the chance you could become sick.

Then, follow these COOL rules:

- Refrigerate food quickly because cold temperatures keep most harmful bacteria from multiplying. A lot of people think it will harm their refrigerator to put hot food inside, but it's not true. Hot food won't harm your refrigerator. More important, prompt refrigeration of foods will keep your food and you safer (see the "Refrigerator and Freezer Storage" chart for recommended storage times).
- Set your home refrigerator no higher than 40°F (4°C) and the freezer unit at 0°F (-18°C). Check the temperature occasionally with an appliance thermometer.
- Refrigerate or freeze perishables, prepared food, and leftovers within 2 hours.
- Divide large amounts of leftovers into shallow containers for quick cooling in the refrigerator.
- Marinate foods in the refrigerator.
- Don't pack the refrigerator too full. Cold air must circulate to keep food safe.
- At family outings or barbecues, use a cooler to keep perishable foods cold. Always use ice or cold packs and fill your cooler with food. A full cooler will maintain its cold temperatures longer than one that is partially filled.

For safe thawing, follow the THAW LAW:

- Never thaw foods at room temperature. You can safely thaw food in the refrigerator. 4 to 5 pounds of frozen food takes about 24 hours to thaw.

**DID YOU KNOW?**

23% of consumers' refrigerators are not cold enough! To discourage the growth of foodborne bacteria, your refrigerator should be set at 40°F (4°C).