

The Nitty-Gritty of Food Safety: A Guide for Parents and Childcare Providers

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Germs can be helpful or harmful. Foods can carry both good and bad germs. “Good” germs such as the bacteria in yogurt can help us digest foods, and yeast is used to make bread rise. “Bad” germs or bacteria can make you sick. Bad bacteria can be especially harmful to young children because they are still building their immune systems. That is the reason food-borne illness can be a much more serious illness in children than in healthy adults.

There are ways for you and the children you care for to prevent food-borne illness. Follow these principles to fight bacteria or Fight BAC! – clean, separate, cook, and chill. Children are never too young to learn about and establish healthy practices like safely handling food.

Clean

The first step of fighting bacteria is to wash your hands and other surfaces frequently. Hand washing is one of the most important ways to prevent the spread of bad germs. It not only helps prevent food-borne illness but also the spread of other infections like colds and the flu. It is estimated that children miss a total of 164 million school days every year because of illness; this number could easily be reduced with hand washing. Teach children to wash their hands at an early age by reminding them to wash their hands after using the restroom,



blowing their nose, and playing outside or touching anything dirty (even petting a dog) as well as before eating any meal or snack. To properly wash hands:

- Use soap and warm, running water.
- Lather hands with soap and rub together for 20 seconds (the length of singing the ABCs, or Happy Birthday).
- Wash backs of hands, scrub finger nails, wrists, and in between fingers.
- Rinse hands thoroughly.
- Turn off water with a paper towel.
- Dry hands with a paper towel or air dryer.

In addition to hand washing, it is always important when preparing food to start with a clean scene! Wash cutting boards, dishes, countertops, and utensils with hot soapy water. Using paper towels or disposable cloths rather than sponges and dishcloths can also help keep food preparation areas clean. If you choose to use sponges or dishcloths in your kitchen, dispose of them often and be sure to wash them in the dishwasher or washing machine after use to reduce bacterial contamination.

Wash hands with soapy water for at least 20 seconds.

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Separate

Cross-contamination can happen when a harmful bacteria or substance touches another food or contaminates it. This can happen, for example, when you are grocery shopping. You may place

Avoid cross-contamination. Separate raw meats and eggs from ready-to-eat foods.

a package of chicken near an apple and some of the chicken juices leak onto the apple. Another place this often happens is on the cutting board. You may cut meat on the board, cook it, and then cut clean, washed vegetables on the same cutting board. In both cases, the produce could be dangerous to eat. The vegetables may not be cooked to kill the harmful bacteria and could potentially make someone sick. Raw meat, poultry, seafood, eggs, and their juices should be kept away from ready-to-eat foods. Finally, be sure to wash your hands. Your hands can also cross-contaminate other foods and yourself!

Cook

Germs can grow at many different temperatures, but grow best at room temperature and in the temperature danger zone (40° to 140°F). So, it is important to cook properly and chill promptly. Food is safely cooked when it reaches a high enough internal temperature to kill the harmful bacteria that cause food-borne illness. Different products require different internal cooking temperatures. Make sure they reach the right temperature as shown in the table at right! Always use a food thermometer to measure the internal temperature of cooked foods. When cooking and reheating leftovers in a microwave stir or rotate foods regularly to make sure there are no cold spots. After cooking, hot foods should be kept hot (greater than 140°F) until serving. Always discard any foods left out at room temperature for more than two hours (one hour in hot weather conditions).

Use a thermometer to check for the proper internal temperature.

Chill

Keep cold foods cold. Foods or items that should be chilled include anything that is perishable or that can spoil, such as dairy products (milk, cheese, yogurt, butter), meats (including hot dogs and luncheon meats),

SAFE MINIMUM COOKING TEMPERATURES

Internal temperature as measured with a food thermometer.

		Rest Time¹
Ground Meat & Meat Mixtures		
Beef, Pork, Veal, Lamb	160°F	none
Turkey, Chicken	165°F	none
Fresh Beef, Veal, Lamb		
Medium rare	145°F	3 min.
Medium ²	160°F	
Well-done ²	170°F	
Poultry		
(chicken, turkey, duck, goose)		none
Whole poultry and poultry parts	165°F	
Stuffing (cooked alone or in bird)	165°F	none
Fresh Pork		
Roast, chops	145°F	3 min.
Ham (whole)		
Fresh (raw)	145°F	3 min.
Pre-cooked (to reheat)	140°F	none
Eggs & Egg Dishes		
Eggs	cook until yolk and white are firm	none
Egg dishes	160°F	
Seafood		
Fin Fish	145°F or the flesh is opaque and separates easily with a fork	
Shrimp, Lobster, Crabs	flesh pearly and opaque	
Clams, Mussels, Oysters	shells open during cooking	
Scallops	milky white or opaque and firm	
Leftovers and Casseroles	165°F	

¹Rest time is the time allowed for meat to set after removed from a heat source.

²Higher temperatures are for consumer preference, not safety.

and eggs. Refrigerate these foods as soon as you get home from the store and make sure not to make any detours after going to the grocery store before you get home. Home refrigerators should be maintained at temperatures lower than 40°F. It is a good idea to monitor your refrigerator's temperature with a refrigerator thermometer. These are available at your local grocery and hardware stores. If you pack snacks or lunch for your child, use an insulated lunch bag with an ice pack, as long as he or she eats it in a few hours. Otherwise, choose foods that are not temperature sensitive.

**Keep cold foods cold.
Chill promptly.**

Other important chilling rules:

- Never let raw meat, poultry, eggs, or cooked meals sit at room temperature more than two hours (one hour when the temperature is above 90°F).
- Defrost food in the refrigerator, in cold water, or in the microwave.
- Divide large amounts of leftovers into shallow containers for quicker cooling in the refrigerator.
- Use or discard refrigerated food on a regular basis; these foods are more perishable. (See *Food Storage Guidelines For Consumers*, Virginia Cooperative Extension publication 348-960, for guidelines.)

Grocery shop with your child and follow safe food handling practices.

Grocery Shopping

Grocery shopping is an everyday task that can be done with your children and can also be a learning activity. Giving children their own special list with pictures to shop for can help to make the trip more enjoyable. Keeping them busy will help you get through the store more quickly. Talking to them about why you are choosing different foods and how they will be cooked can teach them about how to pick ripe fruits or vegetables, how ground beef can become hamburgers, etc. Other tips to make your shopping trip both enjoyable and “safe:”

- Make refrigerated foods like meats and produce your last stop
- Separate meats from other foods by wrapping in plastic wrap

- Shop for cold and frozen foods last
- Buy foods before their sell-by or expiration date
- Separate cleaning supplies from food

Cooking with Children

Having your children help with preparing meals is a great way to spend time together and have children learn new skills. Younger children can help by doing simple tasks, such as stirring or setting the table. They may even enjoy watching. Older children can help by measuring ingredients, cracking eggs, and washing fruits and vegetables. Allowing children to help prepare meals also provides a good time to talk about proper nutrition and safe food handling. Make sure that they wash their hands frequently and wash fruits and vegetables with cold water before they eat them. Also, although tempting, resist eating cookie dough, since raw eggs can cause food-borne illness.

Tips for Teaching Kids

Along with grocery shopping and cooking with your children, here are some tips for teaching your kids about food safety:

1. Create a hand-washing chart that tracks each time your child washes his or her hands each day. Reward your child for washing hands frequently.
2. Start a family hand-washing challenge and keep a running log. If someone washes their hands before a meal or after petting a pet for example – they get a point. But, if someone in the family notices that someone else doesn't wash their hands at appropriate times, the person who spots it gets a point.
3. Visit Scrub Club at www.scrubclub.org/home.php with your child. It is an interactive and fun website designed for children between three and eight years old and focuses on the Fight Bac principles!

Sources:

Fight Bac, www.fightbac.org/

Revised 2012 - Renee R. Boyer, Assistant Professor, Department of Food Science and Technology, Virginia Tech