Avoid Food Cross-Contamination

What is cross-contamination of food and how does cross contamination spread disease?

• Cross contamination occurs anytime harmful germs, like bacteria (i.e., *Salmonella*, *Escherichia coli*, or *Shigella*), viruses (i.e., Norovirus), toxin-producing organisms (i.e., *Staphylococcus aureus* or *Bacillus cereus*), or parasites (i.e., *Cyclospora*) are transferred from one food to another food in homes, restaurants, and other places where people prepare and eat food such as work or church gatherings.

• Cross contamination can occur through indirect spread of bacteria, virus, toxins, and parasites from raw food to ready-to-eat food by equipment, food handlers, cook utensils, or surfaces (e.g., refrigerator handles, knives, or preparation areas).

• Germs can be spread by hands, cutting boards, utensils, counter tops, and food.

What are the symptoms of foodborne illness?

• People with a foodborne illness may have symptoms such as fever, vomiting, diarrhea (sometimes bloody), nausea, chills, and abdominal cramps.

• People at a higher risk for developing foodborne illness, include pregnant women, young children, older adults, and people with medical conditions.

How do I stop food cross contamination?

• **Clean**
  - Wash hands (running water and soap for 20 seconds) before and after going to the bathroom, changing diapers, and handling and feeding pets.
  - Wash all surfaces with hot soapy water before and after preparing each food item.
  - Use paper towels to clean up kitchen surfaces. If cloth towels are used, select the hot cycle on washing machine to clean.
  - Rinse all fresh fruit and vegetables, including those with skins and rinds, under running water.
  - Do not wash raw poultry before cooking, because bacteria in raw poultry juices can be spread to other foods, utensils, and surfaces.
  - Rub firm-skin fruits and vegetables under running water or scrub with a clean brush.
  - Clean the lids of canned foods before opening.

• **Separate**
  - Avoid direct contact between raw food and ready-to-eat food during transport, storage, and preparation.
Separate raw meat, poultry, seafood, and eggs from other food in the grocery cart, grocery bag, and refrigerator.

On the lowest refrigerator shelf, store raw meat to prevent blood from dripping on other foods.

Use one cutting board for produce and a separate board for raw meat.

Never place cooked food on surfaces that previously touched raw meat.

Do not reuse marinades.

**Cook**

Cook food to the correct internal temperature to kill harmful germs that cause illness.

Use a food thermometer to measure the internal temperature in various places.

Cook ground meat and poultry to the correct temperature, not by color.

Cook eggs until yolk and white are firm.

When using a microwave, cover, stir, and rotate food for even cooking.

Reheat sauces, soups, and gravy to a boil.

**Chill**

Refrigerate or freeze foods within 2 hours because cold temperatures slow harmful germ growth.

Do not overfill the refrigerator. Cold air must circulate to keep food safe.

Keep refrigerator at 40°F or below.

Use an appliance thermometer to measure the inside refrigerator temperature.

Refrigerate or freeze meat, poultry eggs, seafood, and other perishables within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the outside temperature is above 90°F.

Never thaw food at room temperature. Food must be kept at a safe temperature during thawing.

Three safe ways to thaw food including: in the refrigerator, in cold water, and in the microwave.

While marinating, always store food in refrigerator.

Divide leftovers into shallow containers for quicker cooling in the refrigerator.

Eat or throw away refrigerated food on a regular basis and pay attention to expiration dates.

Where can I find more information?

- Go to [fsis.usda.gov](http://fsis.usda.gov) and type in Kitchen Companion in SEARCH box or [fda.gov](http://fda.gov) and type in Food Safety in SEARCH box.