When preparing food...
- Make sure refrigerated food is cold to the touch, frozen food is rock-solid, and canned goods are free of dents, cracks, or bulging lids, and packages aren’t torn, taped or broken.
- Always refrigerate perishable food within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the temperature outside is above 90 degrees F.
- When you store food...
  - Make sure the temperature of your refrigerator is at 40 degrees F or less using an appliance thermometer. The freezer should be at 0 degrees F.
  - Keep your refrigerator as cold as possible without freezing milk or lettuce.
  - Freeze fresh meat, poultry, fish, or seafood immediately if you can’t use them within a few days.
  - Put packages of raw meat, poultry, fish, or seafood on a plate or in a sealed container before refrigerating and store them on the bottom shelf so the meat juices won’t drip on other food.
- When preparing food...
  - Always wash your hands in hot soapy water before preparing food, in-between preparing different foods, after using the bathroom, changing diapers, handling pets, smoking, etc.
  - For best results, use hot water to moisten hands and then apply soap and rub hands together for 20 seconds before rinsing thoroughly. Dry with paper towels.
  - Use one cutting board for preparing raw meat, poultry, fish, and seafood and another for other foods such as fruits and vegetables.
  - Wash cutting boards, knives, and your hands in hot, soapy water after handling raw meat foods and before handling any foods which will not be cooked or heated before consumption.
  - Read and follow product instructions for refrigerating, storing, cooking and handling all packaged food products and keep to the “use-by” date.
  - Wash raw fruit and leafy greens, leaf by leaf, in plain water.
  - Keep work surfaces in the kitchen clean.
  - Keep the refrigerator clean.
  - Put cooked food in the refrigerator right after dinner. Don’t leave foods out to cool first.
  - Keep pets away from food, dishes, dish cloths, and towels.
  - Consider using paper towels to clean up kitchen surfaces. If you use cloth towels, change them daily and wash them in the hot cycle of your washing machine. Use a disinfectant cleaner or a mixture of bleach and water to provide some added protection against bacteria.
- When cooking food...
  - Cook ground meat, meat mixtures and egg dishes to at least 160 degrees F.
  - If a thermometer is not available, cook hamburgers until the middle is brown/grey in color, not pink.
  - Use a clean thermometer to measure the internal temperature of cooked foods, making sure meat, poultry, casseroles and other foods are cooked all the way through.
  - Cook whole poultry and poultry breasts to 165 degrees F.
  - Reheat leftovers thoroughly to at least 165 degrees F. Bring sauces, soups, and gravy to a boil when reheating.
  - Cook eggs until the yolk and white are firm. Don’t use recipes in which eggs remain raw or only partially cooked.
- When dining out...
  - Do not order raw or undercooked foods such as those containing raw or undercooked eggs.
  - Never choose rare or medium-rare meats.
  - Do not eat raw fish or shellfish like sushi, ceviche, sashimi, oysters, and clams.
  - Be sure food is served very hot. If not, send it back.

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Food Safety for Children, Pregnant Women, Older Adults, and those with Impaired Immune Systems

Fact Sheet 00-37 (revised 2012)

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What is foodborne illness?

Foodborne illness is passed to humans by food. Bacteria cause most cases of foodborne illness, which are usually due to improper food handling. But foodborne illness can be prevented through proper food handling and cleanliness.

People who have a foodborne illness often think they have the flu. When people experience headache and stomach ache, it may be dismissed as the “stomach flu” or “twenty-four-hour virus.” But it may be foodborne illness and it can cause severe illness which can be deadly for the elderly, children, diabetics, alcoholics, and individuals whose immune systems are weakened, such as cancer patients.

If you or a family member develop nausea, vomiting, diarrhea, fever, or cramps, it could be a foodborne illness. It’s not always easy to tell, since, depending on the illness, symptoms can appear anywhere from 30 minutes to 2 weeks after eating bad food. Most often, though, people get sick within 4 to 48 hours after eating the food in question.

If symptoms are severe or the victim is either very young, elderly, pregnant, or already ill, call a doctor or go to the hospital right away.

Who are most vulnerable to foodborne illness?

- Children under age five
- Pregnant women
- Adults over age 60
- Persons with an impaired immune system such as those taking certain types of medications, people receiving cancer treatment, and people infected with the HIV virus which causes AIDS.

Everyone can get foodborne illness, also known as food poisoning. However, some people can get foodborne illness more easily because they aren’t able to fight off disease as well as others. If they become sick with a foodborne illness, these people can face serious health problems.

What are the most hazardous foods or drinks?

- Poultry, meats, and fish not cooked well enough (including undercooked hamburgers)
- Unpasteurized milk and any product made with unpasteurized milk.
- Soft cheeses made from unpasteurized milk such as feta, Brie, blue and Mexican-style soft white types like Queso Fresco.
- Raw or undercooked eggs and dishes prepared with them such as homemade ice cream and mayonnaise, Caesar salad, and eggnog.
- Raw or undercooked shellfish
- Hot dogs and luncheon meats unless reheated to steaming hot.
- Raw sprouts
- Juices that have not been pasteurized
- Any cooked food that comes in contact with raw food such as raw meat juices dripping on leftovers.
- Any food stored above the recommended safe temperature - frozen foods kept at greater than 0 degrees F or refrigerated foods kept at greater than 40 degrees F.

How can I prevent food from becoming unsafe to eat?

When you shop...

- Choose only pasteurized dairy products. Pasteurization kills harmful bacteria.
- Choose pasteurized eggs/egg products if you are using eggs to prepare a drink or food which is not cooked, like Caesar salad, eggnog, or smoothies.
- Put meats, poultry, fish and seafood in plastic bags and place them on the bottom of the shopping cart to prevent juices from dripping onto other foods.
- Put cold foods in your basket last and get them home fast. Take food straight to the refrigerator. Never leave food in a hot car!
- Buy only the amount you can use before the use-by date. Do not buy foods after the expiration date, use-by date, or sell-by date. At home, throw out refrigerated foods after the expiration date or use-by date. Frozen foods remain safe even if the product date has expired, though their quality may be diminished.

Cook Foods Thoroughly to the Following Temperatures:

<table>
<thead>
<tr>
<th>Raw Food</th>
<th>Internal Temp</th>
<th>Rest Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Meat &amp; Meat Mixtures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef, Pork, Veal, Lamb,</td>
<td>160</td>
<td>None</td>
</tr>
<tr>
<td>Turkey, Chicken</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>Fresh Beef, Veal, Lamb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steaks, Roasts, Chops</td>
<td>145</td>
<td>3 min.</td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken &amp; Turkey, whole</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>Poultry Breasts, Roasts</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>Poultry Thighs, Legs, Wings</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>Duck &amp; Goose stuffing</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>(alone or in the bird)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pork and Ham</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh Pork</td>
<td>145</td>
<td>3 min.</td>
</tr>
<tr>
<td>Fresh Ham</td>
<td>145</td>
<td>3 min.</td>
</tr>
<tr>
<td>Precooked Ham (to reheat)</td>
<td>140</td>
<td>None</td>
</tr>
<tr>
<td>Eggs &amp; Egg Dishes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td>until yolk and white are firm</td>
<td>None</td>
</tr>
<tr>
<td>Egg dishes</td>
<td>160</td>
<td>None</td>
</tr>
<tr>
<td>Leftovers &amp; Casseroles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leftovers</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>Casseroles</td>
<td>165</td>
<td>None</td>
</tr>
<tr>
<td>Seafood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fin Fish</td>
<td>145 or until flesh is opaque and separates easily</td>
<td>None</td>
</tr>
<tr>
<td>Shrimp, Lobster and Crab</td>
<td>until flesh is pearly and opaque.</td>
<td>None</td>
</tr>
<tr>
<td>Clams, Oysters and Mussels</td>
<td>until shells open during cooking.</td>
<td>None</td>
</tr>
<tr>
<td>Scallops</td>
<td>until flesh is milky white and firm.</td>
<td>None</td>
</tr>
</tbody>
</table>

- Reheated to steaming hot.
- Raw or undercooked shellfish.
- Raw or undercooked eggs and dishes prepared with them such as homemade ice cream and mayonnaise, Caesar salad, and eggnog.
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