



# Food Poisoning; What, When, & Why



— by Mark E. Murphy, M.D., FACP, AGAF —

Summer is here! It's a time of year when families and friends can rekindle relationships or visit friends and family. Who doesn't love a great barbecue or picnic? But with these sorts of activities comes a potential price. Summer is also the peak time of year for foodborne illness—i.e. "food poisoning." The phrase "it's something I ate" is uttered more frequently in summer than any other time of year. We'll review the most common causes of this sort of illness and provide you with a few simple steps to minimize your risk of having food poisoning ruin your special event this summer.

#### Watch out for that Cookout!

We've all seen it: John and Mary plan a cookout, everyone has a good time, but the potato salad tastes a little funny...and by morning, everyone who ate it is having nausea, vomiting and diarrhea. And it will be a long time before anyone goes back to a cookout at John and Mary's!

**Overview.** Each year in the United States, there are 75 million cases of food poisoning. Although most cases are self-limited, food poisoning can be serious: around 5000 people in this country die from it each year. The average person in the U.S. will have a case of food poisoning every four years or so. Signs and symptoms of food poisoning vary depending upon the organism causing the illness (over 200 organisms have been described as possible causes), but often include nausea, vomiting, crampy abdominal pain, and bloody or non-bloody diarrhea. Symptom onset can be within six hours for some food-borne illnesses (i.e. *Staphylococcus aureus*, the pathogen commonly seen in conjunction with homemade potato salad) or may occur several days after exposure. Certain people are at higher risk for food-borne illness, including they very young or very old, people with compromised immune systems, pregnant women, and individuals with chronic illnesses. Standard food poisoning, as described in this article, should be distinguished from traveler's diarrhea (i.e. "Montezuma's Revenge"), which is a special case of food-borne illness often seen in individuals traveling to less-developed countries with contaminated water supplies.

**When to seek medical attention.** If your symptoms are persistent or severe, if you have an underlying medical condition, or if there are worrisome signs or symptoms (temperature greater than 100.4oF, severe abdominal pain, inability to eat or drink, bloody stool or vomit), you should see a healthcare provider for evaluation and treatment.

Young children and elderly adults with these symptoms should also be evaluated quickly. Children and elderly people can lose fluid quickly from vomiting or having diarrhea, which can quickly lead to dehydration.

The healthcare provider will ask questions about the type, duration, and severity of symptoms. The person's blood pressure, pulse, weight, and temperature will be measured, and a physical examination will be performed. In some cases, blood or urine tests will be done to determine if the person is dehydrated or has signs of a body-wide infection.

**Prevention.** The Federal Government publishes guidelines to prevent food-borne illness (HYPERLINK "<http://www.foodsafety.gov>") www.foodsafety.gov). These guidelines include the following suggestions:

- Do not drink raw (unpasteurized) milk or foods that contain unpasteurized milk.
- Wash raw fruits and vegetables thoroughly before eating.

## MEET THE DOCTOR

### BOARD CERTIFICATION:

American Board of  
Internal Medicine

American Board of Internal  
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### MEDICAL DEGREE:

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### RESIDENCY:

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American College of Physicians  
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Crohn's & Colitis Foundation  
of America

### AREAS OF EXPERTISE:

Inflammatory Bowel Disease

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- Keep the refrigerator temperature at 40oF (4.4oC) or lower; the freezer at 0oF (-17.8oC) or lower.
- Use precooked, perishable, or ready-to-eat food as soon as possible.
- Keep raw meat, fish, and poultry separate from other food.
- Wash hands, knives, and cutting boards after handling uncooked food, including produce and raw meat, fish, or poultry.
- Thoroughly cook raw food from animal sources to a safe internal temperature: ground beef 160oF (71oC); chicken 170oF (77oC); turkey 180oF (82oC); pork 160oF (71oC).
- Seafood should be cooked thoroughly to minimize the risk of food poisoning. Eating raw fish (eg, sushi) poses a risk for a variety of parasitic worms (in addition to the risks associated with organisms carried by food handlers). Freezing kills some, although not all, harmful microorganisms. Raw fish that is labeled "sushi-grade" or "sashimi-grade" has been frozen.
- Cook chicken eggs thoroughly, until the yolk is firm.

- Refrigerate foods promptly. Never leave cooked foods at room temperature for more than two hours (one hour if the room temperature is above 90oF/32oC).

The following additional recommendations apply to pregnant women and those who have a weakened immune system:

- Do not eat hot dogs, pâtés, luncheon meats, bologna, or other delicatessen meats unless they are reheated until steaming hot; avoid the use of microwave ovens since uneven cooking may occur.
- Avoid spilling fluids from raw meat and hot dog packages on other foods, utensils, and food preparation surfaces. In addition, wash hands after handling hot dogs, luncheon meats, delicatessen meats, and raw meat, chicken, turkey, or seafood or their juices.
- Do not eat pre-prepared salads, such as ham salad, chicken salad, egg salad, tuna salad, or seafood salad.
- Do not eat soft cheeses such as feta, Brie, and Camembert, blue-veined cheeses, or Mexican-style cheeses such as queso blanco, queso fresco, or Panela, unless they have a label that clearly states that the cheese is made from pasteurized milk.
- Do not eat refrigerated pates or meat spreads. Canned or shelf-stable products may be eaten.
- Do not eat refrigerated smoked seafood unless it has been cooked. Refrigerated smoked seafood, such as salmon, trout, whitefish, cod, tuna or mackerel, is most often labeled as "nova-style," "lox," "kippered," "smoked," or "jerky." The fish is found in the refrigerator section or sold at deli counters of grocery stores and delicatessens. Canned or shelf-stable smoked seafood may be eaten.

**Treatment.** In most cases of food poisoning, treatment is supportive. Supportive treatment includes drinking adequate fluids, eating small, low-fat meals, and resting as needed.

Antibiotics are recommended for some, but not all types of food poisoning, and should only be taken if prescribed by a physician. In most cases, symptoms resolve quickly and no special treatment is necessary. In people with persistent diarrhea and/or vomiting, intravenous fluids may be needed to prevent dehydration.

Preventing the spread of infection. People with diarrhea and/or vomiting should be cautious to avoid spreading infection to family, friends, and co-workers. A person is considered infectious for at least as long as vomiting or diarrhea continues, and sometimes longer depending upon the microbe.

Microorganisms that cause food poisoning are usually spread from one person to another by hand to mouth contact. As a result, hand washing, care with diapering, and staying out of work or school are a few ways to prevent infecting family and other contacts.

Here's to a happy—and healthy—summer for everyone!



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