

Food Poisoning Case Study

Although regulations are in place to safeguard the U.S. food supply, many cases of food poisoning occur each year. The following paragraphs describe some recent cases of food poisoning in the United States.

Case A:

A group of people attended a family reunion picnic on a warm summer day. Shortly after the picnic, about 100 of them became ill. The illness was traced to potato salad and turkey that was served at the picnic. When tested, the foods contained the *Salmonella enteritidis* bacteria. Poultry, milk, eggs, and foods made from eggs most often carry this bacterium. Symptoms of salmonella infection include diarrhea, abdominal pain, nausea, and fever. Symptoms usually last two to five days. People can best avoid infection by salmonella by properly refrigerating prepared foods and by thoroughly cooking poultry and other foods that could carry the bacteria.

Case B:

A young woman decided to go on a healthy diet that consisted of mostly vegetables, fruits, and chicken. One day, she felt a tingling in her feet. A few hours later, she collapsed. Her condition deteriorated over the next few days, with constant pain, difficulty breathing, and partial paralysis. Over several months, she slowly recovered. Her illness was traced to chicken contaminated by the *Campylobacter* bacteria. She had cooked the chicken well, but she remembered using a cutting board on which she had chopped raw chicken to also chop vegetables for a raw salad she ate at the same meal. She did not wash the cutting board thoroughly between chopping the chicken and the vegetables.

Case C:

A young man went out to dinner and ordered tacos. He said they tasted strange. An hour later, he felt ill with stomach pains and diarrhea. His illness lasted for only a few days, but at one point the pain was so severe that he went to the hospital emergency room. Local health authorities tested for food borne bacteria and found that he was infected with *E. coli*, a very dangerous and sometimes deadly bacterium often found in food. Some sleuthing determined that the bacteria had come not from the tacos but from a hamburger eaten at a backyard barbeque a few days earlier. The meat was contaminated at the food processing plant that had made the hamburger patties. The company voluntarily recalled 35 million pounds of ground beef that could have been tainted with the bacterium.

1. In Case A, identify the bacteria that were the source of the food poisoning.

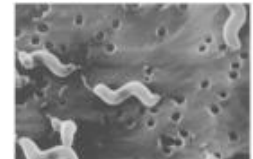
2. Which food transmitted the bacteria to the people at the picnic?



3. How is it possible that the foods in Case A were contaminated with enough bacteria to cause illness.

4. Identify the bacteria that caused food poisoning in Case B.

5. Which food probably transmitted the bacteria?



6. Given the way the foods were handled in Case B, draw conclusions about how the bacteria were transmitted to the person who became ill.

7. Identify the bacteria in Case C that caused the food poisoning.

8. Which foods transmitted the bacteria?



9. Infer how the way the food was handled at the barbeque in Case C could have aided in the growth and transmission of the bacteria.

10. Using the information in all three cases above, list three rules for handling and storing food that could decrease your chances of getting food poisoning.