

If Lyme disease is left untreated, after several days or weeks, bacteria may spread throughout the body of an infected person. Then there may be many more symptoms. An infected person may get rashes on other parts of the body. Symptoms also may include pain that seems to move from joint to joint. There may be signs of inflammation of the heart or nerves.

If the disease is still not treated, infected people can get additional symptoms. These can include swelling and pain in major joints, or mental changes. Some symptoms might not show up until months after getting infected. The treatment usually involves using different types of antibiotics.



Adult female deer ticks like the one in this picture may carry the bacteria for Lyme disease.

While most of the cases of Lyme disease in the United States are in the Northeastern part of the United States, this disease is found all over the world and is a concern across the United States. Montana is the only state that has never reported a case of Lyme disease. During spring and summer, you will often hear news stories about Lyme disease. It is important to be careful if you live in an area that has deer ticks, because they may carry the bacteria that cause Lyme disease.

Be a Scientist

Case Study: *E. coli* Infections

It was August and September, 2006, and calls began to come into doctors' offices and hospitals around the country. People were complaining of diarrhea, fever, cramps, and vomiting. Most people felt very sick for several hours and missed school or work. Many people were hospitalized. Over the next few days, there were more calls from people all over the country. Officials counted calls from 25 states. Eventually, by the first of October, 199 people had gotten sick. Three people had died.

The calls from sick people began arriving about August 19. Investigators from the Food and Drug Administration (FDA) spoke with many of the sick people. Thinking that the illnesses were being caused by something in food, the FDA used a survey to identify what foods the people had eaten. The survey had hundreds of foods on it. People told the FDA what they had eaten in the last several days. When all the data were analyzed, spinach came out as a food most people had eaten three to four days before they got sick. The FDA began to look for contaminated spinach. They sent out the press release shown on the next page.