

Salmonellosis

Frequently Asked Questions

What is salmonellosis?

Salmonellosis (sal-meh-nel-OH-sis) is an illness caused by infection with a bacterium called *Salmonella*. Salmonellosis is mostly an infection of the intestines, but in a small number of cases, *Salmonella* can infect the bloodstream and cause other infections in other parts of the body. There are several different types of *Salmonella* bacteria. In the United States, *Salmonella typhimurium* and *Salmonella enteritidis* are the most common. Although salmonellosis can occur throughout the year, most cases occur during the summer months.

Who gets salmonellosis?

Anyone can get salmonellosis. Every year, about 40,000 cases of salmonellosis are reported in the United States. New Jersey reports an average of 900 cases of salmonellosis each year. Because many milder cases are not diagnosed or reported, the Centers for Disease Control and Prevention estimate the actual number of infections may be over 30 times greater. Severe cases of illness may need hospital care and are more often seen in infants, the elderly, and people with weak immune systems. It is estimated that about 600 people die each year in the United States from salmonellosis.

How is salmonellosis spread?

People become infected with *Salmonella* by swallowing the bacteria. This can occur in several ways:

Salmonella bacteria can be spread by eating contaminated foods, especially of animal origin, such as beef, poultry, milk, or eggs. Any food, even fruits and vegetables, can become contaminated if it comes in contact with contaminated foods or surfaces. Contaminated foods usually look and smell normal. Thorough cooking kills *Salmonella* bacteria.

Salmonella can also spread as a result of the bacteria passing from the stool of an infected person to the mouth of another person. This can happen when infected people do not wash their hands properly after using the bathroom and then touch food or objects that may be placed in another person's mouth.

People can also become infected by touching infected animals, including certain pets such as turtles, lizards, other reptiles and chicks. *Salmonella* can live naturally in the intestines of these animals and is passed in their droppings. These animals are not appropriate pets for small children. Hands should be washed **immediately** after handling a reptile, even if the reptile is healthy.

What are the symptoms of salmonellosis?

Although some infected people may not have any symptoms, the most common symptoms include:

- Diarrhea
- Fever
- Headache
- Abdominal cramps
- Nausea
- Vomiting

Symptoms usually occur 12 to 72 hours after swallowing the bacteria. The illness usually lasts 4 to 7 days, and most people recover without treatment.

How is salmonellosis diagnosed?

If a health care provider suspects salmonellosis, a sample of the patient's stool will be examined. Further testing can determine the specific type of *Salmonella* bacteria and what type of antibiotic is most effective. Sometimes more than one stool sample must be taken because the bacteria may not be present in every stool sample.

What is the treatment for salmonellosis?

Salmonella infections usually end in 5 to 7 days without any treatment. People who become dehydrated due to severe diarrhea or who have infections that have spread beyond the intestines will take longer. Antibiotics are usually not prescribed. However, antibiotics may be used for infants, the elderly, people with weak immune systems and for people who have infections that have spread beyond the intestines. Unfortunately, some *Salmonella* bacteria are no longer able to be killed by antibiotics. This is known as "antibiotic resistance."

Are there any long-term effects from a *Salmonella* infection?

While most people with salmonellosis recover completely, a very small number of people who are infected will go on to develop pain in their joints, irritation of the eyes, painful urination, and skin problems. This is known as Reiter's syndrome. It can last for months or years, and can lead to chronic arthritis that is difficult to treat. Antibiotic treatment during salmonellosis illness does not make a difference in whether or not the person later develops Reiter's syndrome.

Can people with salmonellosis pass the illness to others?

An infected person is able to transmit salmonellosis to others as long as the *Salmonella* bacteria are being passed in his/her stool. This usually lasts for several days to several weeks after all symptoms of illness have ended. Some people, especially infants, may become carriers, meaning that the *Salmonella* bacteria are in the stool for several months.

Should an infected person be excluded from work or school?

Most infected people may return to work or school when they no longer have diarrhea and fever. Since the *Salmonella* bacteria may continue to be in their stool for several weeks, infected people should wash their hands with soap and water, especially after every bathroom visit.

Special precautions are indicated for food handlers, health care workers, child care providers and children attending child care. If these people are infected with the bacteria, they may put others at risk for the illness.

- Food handlers should be excluded from cooking, preparing and touching food until they have no symptoms and have two negative stool tests.
- Health care workers should be excluded from direct patient care/contact until they have no symptoms and have two negative stool tests.
- Child care providers and/or diapered child attendees should be excluded from work/attending child care until they have no symptoms and have two negative stool tests. Toilet-trained attendees may return to child care after they no longer have symptoms. Stools of all child care staff, attendees and household contacts with diarrhea, should be tested.

Please note: Two negative stool tests should be taken at least 24 hours apart and at least 48 hours after antibiotic treatment has ended (if antibiotic therapy is given).

What can be done to prevent salmonellosis?

- Avoid eating raw or undercooked eggs, poultry, or meat. Raw eggs are sometimes “hidden” in foods such as homemade hollandaise sauce, Caesar salad dressing, tiramisu, homemade ice cream, homemade mayonnaise, cookie dough, and cake batter.
- Cook all meat and poultry products thoroughly (there should be no pink in the center). Cook poultry products to an internal temperature of 170°F for breast meat and 180°F for thigh meat.
- Throw away cracked or dirty eggs.
- Keep eggs refrigerated.
- Avoid unpasteurized milk and dairy products.
- Wash fruits and vegetables thoroughly if they are to be eaten raw.
- Wash hands, kitchen work surfaces and utensils with soap and water immediately after they have been in contact with raw meat or poultry, or raw eggs.
- Be very careful with foods prepared for infants, the elderly, and people with weak immune systems.
- Keep reptiles away from infants and people with weak immune systems.
- Wash hands carefully after using the bathroom and changing diapers.
- Wash hands carefully after handling pets, especially chicks, turtles, iguanas, other lizards and snakes.

General steps to prevent spreading germs in the kitchen:

- Keep raw meats away from fruits, vegetables, cooked food and all ready-to-eat foods.
- Do not use the same cutting board for meat and other foods. Carefully clean all cutting boards, counter-tops and utensils with soap and hot water after preparing raw meat, poultry, eggs or seafood.
- Wash your hands carefully after handling uncooked foods. Hands should be washed between handling different food items.
- Wash your hands with soap after touching animals or their droppings.
- Anyone with diarrhea should not prepare food for others.

Where can I get more information?

- Your health care provider
- Your local health department
- NJ Department of Health www.nj.gov/health
- Centers for Disease Control and Prevention www.cdc.gov/salmonella

This information is intended for educational purposes only and is not intended to replace consultation with a health care professional. Adapted from Centers for Disease Control and Prevention.