

**What is *Salmonella*?**

Salmonella is a bacterial infection that generally affects the intestinal tract and occasionally the bloodstream.

Who is at risk for *Salmonella*?

Any person can be infected with *Salmonella*, especially infants and children.

What are the symptoms of *Salmonella*?

People exposed to *Salmonella* bacteria may experience mild to severe diarrhea, abdominal pains, fever and occasionally vomiting for several days. Bloodstream infections are infrequent but can be quite serious, particularly in the very young or elderly.

How soon do symptoms appear?

The symptoms generally appear 12 to 36 hours after exposure, but they can occur as quickly as six hours or as long as 72 hours after exposure.

How is *Salmonella* spread?

Salmonella live in the intestinal tracts of humans and other animals, including birds. *Salmonella* usually are transmitted to humans by eating foods contaminated with animal feces. Contaminated foods usually look and smell normal. Contaminated foods are often of animal origin – such as beef, poultry, milk or eggs – but all foods, including vegetables, may become contaminated. Many raw foods of animal origin frequently are contaminated, but fortunately, thorough cooking kills *Salmonella*. Food also may become contaminated by the unwashed hands of an infected food handler who forgot to wash his or her hands with soap after using the bathroom.

Salmonella also may be found in the feces of some pets, especially those with diarrhea, and people can become infected if they do not wash their hands after contact with these feces. Reptiles, such as lizards and turtles, are particularly likely to harbor *Salmonella*, and people should always wash their hands immediately after handling a reptile, even if the reptile is healthy. Adults also should be careful that children wash their hands after handling a reptile.

When and for how long is a person able to spread the disease?

The time period that a person can have *Salmonella* in his or her stool (even after symptoms stop) is extremely variable, usually several days to several weeks. Sometime people not showing symptoms can carry the disease for months, especially in infants or people who have been treated with antibiotics. About 1 percent of infected adults and 5 percent of children younger than 5 shed *Salmonella* in their stools for more than a year.

How is a person diagnosed?

Laboratory tests can identify *Salmonella* in the stools of an infected person.

What is the treatment?

Most people with salmonellosis will recover on their own or only require fluids to prevent dehydration. Antibiotics and anti-diarrhea drugs are generally not recommended for people with typical intestinal infections.

Does past infection make a person immune?

No.

Should children or others be excluded from day care, school, work or other activities if they have *Salmonella*?

Yes, if:

- The child is unable to participate and staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.
- The child meets other exclusion criteria, such as fever with behavior change.

Exclusion of infected day care staff or people who handle food is recommended.

What can be done to prevent the spread of *Salmonella*?

- Always treat raw eggs, poultry, beef and pork as if they are contaminated, and handle accordingly.
- Wrap fresh meats in plastic bags at the market to prevent blood from dripping on other foods.
- Refrigerate foods promptly; minimize holding at room temperature.
- Cutting boards and counters used for preparation should be washed with soap immediately after use to prevent cross contamination with other foods.
- Avoid eating raw or undercooked meats.
- Ensure that the correct internal cooking temperature is reached – particularly when using a microwave oven (165° F for all reheated foods).
- Avoid eating raw or undercooked eggs or undercooking foods that contain raw eggs.
- Avoid using and drinking raw (unpasteurized) milk.
- Carefully wash hands with soap before and after food preparation, after handling pets and after using the restroom.

Additional Information:

For additional information, call the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources: American Academy of Pediatrics. [Children In Out-of-Home Child Care]. In: Pickering LK, ed. Red Book: 2003 Report of the Committee on Infectious Diseases. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003:[123-137].

Control of Communicable Disease Manual, 18th Edition-2004, Heymann, David, MD ed.

