

Salmonella on the Farm

What is *Salmonella*?

Salmonella is a type of bacteria and causes the diarrheal illness salmonellosis.

What are the symptoms?

Symptoms of a *Salmonella* infection can include diarrhea, fever, stomach cramps, and vomiting. People usually get sick 12 to 72 hours after ingesting the bacteria. However, illness can occur up to 1 week later. Sometimes people infected with *Salmonella* have no symptoms at all, but can still pass the bacteria to others.

How long does it last?

The symptoms usually last for 4 to 7 days. Most healthy people with mild symptoms will recover from salmonellosis without treatment. However, salmonellosis can be a serious illness that results in hospitalization. In Minnesota, 24% of people diagnosed with a *Salmonella* infection end up hospitalized.

How is *Salmonella* spread?

Salmonella lives in the intestines of poultry (especially chicks and ducklings), swine, cattle, and other animals. It can be found in water, food, or on surfaces that have been contaminated with the feces of infected animals or humans. *Salmonella* can survive for long periods of time in the environment.

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

- Eating contaminated food, such as:
 - Undercooked poultry, eggs, or beef.
 - Raw fruits, vegetables, and milk.

- Contact with infected pets or farm animals (especially baby chicks and ducklings).
- Contact with reptiles such as turtles, snakes, and lizards.

What should I do if I have symptoms?

- Contact your health care provider.
- Wash your hands often. Use soap and running water and wash for 20 seconds.
- Do not prepare food for others while you are ill.

Where is *Salmonella* found on the farm?

The most common sources of *Salmonella* on the farm are poultry, cattle, sheep, swine, and their manure.

Some types of *Salmonella* can cause diarrheal illness in livestock, poultry, and reptiles, but more commonly infected animals show no signs of illness. Even an animal that appears healthy can pass the bacteria in its feces. The bacteria can be found anywhere that fecal contamination occurs, such as animal bedding, food and water containers, and on gates and pens.

Human *Salmonella* infections are more common in the spring and summer months partially because that is when baby chicks, baby turkeys, and ducklings, which frequently carry *Salmonella*, are usually purchased.

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How can *Salmonella* be prevented in livestock, poultry, and the farm environment?

Because animals with *Salmonella* infections do not always show signs of illness, it is not practical to identify and remove infected animals. If an animal does have diarrhea, it is important to isolate the animal so it cannot spread any germs it might have to other animals or the environment.

- Good hygiene and sanitation practices can lower the levels of *Salmonella* found on the farm.
- Design feeders and waterers to keep manure out.
- Work with a veterinarian to diagnose and treat sick animals.

How can I prevent the spread of *Salmonella* and other germs from animals to humans?

- **Wash your hands** with soap and running water before eating or drinking, especially after working on the farm or handling materials that might be contaminated with manure.
- If no running water and soap is available, hand sanitizer may be used until you are able to wash your hands with soap and water.
- Avoid eating or drinking in barns or other areas where animals are housed.
- Wear dedicated clothing or coveralls and shoes when out in the barn. Remove barn clothing and shoes prior to entering the main part of the house to keep manure out of the house.
- Inform visitors to the farm of the importance of hand washing for preventing infections with *Salmonella* and other germs.
- People with weakened immune systems (children < 5 years, people > 65 years, pregnant woman, and people with certain medical conditions) should avoid the barn and other animal areas if possible. People with weakened immune systems may stay sick for longer and have a harder time getting rid of the infection than those with a healthy immune system.
- Keep house pets out of the barn to keep them from becoming infected or tracking manure into the house.

- Provide play areas for children that are away from areas of the farm that may be heavily contaminated with manure.
- Do not drink raw milk.
- If the farm has well water, it is a good idea to test the water once a year for total coliform bacteria. These bacteria do not cause any illness but their presence indicates that contamination has found its way into the well and disease causing organisms may also be present.

How can I prevent the spread of *Salmonella* in my home?

- Cook all poultry, meat, and egg products thoroughly.
- Separate raw poultry, eggs, and other meats from vegetables and cooked foods.
- Prevent cross-contamination in the kitchen by washing hands, cutting boards, countertops, knives, utensils, and other surfaces after handling raw poultry, meat, or egg products. For example, use separate cutting boards to prepare veggies for a salad and raw chicken to be grilled.
- Wash your hands with warm, soapy water for at least 20 seconds
 - ✓ After using the bathroom
 - ✓ After changing diapers
 - ✓ After touching animals
 - ✓ Before eating
- Wash your hands more often when you or someone in your house is sick.

For more information, please visit the Minnesota Department of Health website at www.health.state.mn.us or contact Carrie Klumb at 651-201-5414. For more information about the Upper Midwest Agricultural Safety and Health (UMASH) Center, please visit the website at www.umash.umn.edu