

Salmonellosis

Terry Conger
Poultry Health Specialist/
Epidemiologist
USDA-APHIS
Veterinary Services

F. Dustan Clark
Professor and
Extension Veterinarian

Susan Weinstein
State Public Health
Veterinarian
Arkansas Department of
Health

Brandon Doss
Assistant State
Veterinarian
Arkansas Livestock and
Poultry Commission

*Arkansas Is
Our Campus*

Visit our web site at:
<https://www.uaex.uada.edu>

What is Salmonellosis?

Salmonellosis is a diarrheal disease caused by an infection with bacteria of the species *Salmonella*. These bacteria are found in the digestive tracts of humans and many kinds of animals, including mammals, birds and reptiles.

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. Occasionally people infected with *Salmonella* have no symptoms at all, but can still pass the bacteria to others.

How long do the symptoms 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 Arkansas, 28 percent of people diagnosed with a *Salmonella* infection end up hospitalized.

How is *Salmonella* spread to people?

Salmonella live in the intestines of poultry (especially chicks and ducklings), pigs, cattle and other animals. It also 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.

Where can *Salmonella* bacteria be found on the farm?

Salmonella bacteria live in the intestines of farm animals. The most common sources of *Salmonella* on the farm are in the intestines of poultry, cattle, sheep, pigs and their manure.

What is the most common time of year when human infections occur?

Human infections are more common in the spring and summer months, partially because that is when baby chicks, baby turkeys and ducklings, which often carry *Salmonella* bacteria, are usually purchased for backyard or hobby flocks. In the United States, it is estimated that approximately 400 people die from Salmonellosis every year.

How is Salmonellosis diagnosed?

Your doctor, nurse or health center must send your stool sample to a laboratory. The laboratory then grows bacteria and tests the bacteria to see if any of them are *Salmonella*. It takes the lab several days to do this test.

How is the disease treated?

- Most people who get Salmonellosis do not require treatment other than oral fluids.

- Some people with severe diarrhea may require intravenous fluids.
- Antibiotics are not usually given to people unless the infection spreads from their intestines.

People become infected with *Salmonella* by swallowing the bacteria. How can this happen?

- By eating contaminated food, such as:
 - Undercooked poultry, eggs or beef
 - Raw fruits, vegetables
 - Raw milk
- Through contact with infected pets or farm animals (especially baby chicks and ducklings).
- Through contact with reptiles such as turtles, snakes and lizards.

What types of food are most likely to spread *Salmonella*?


Salmonella bacteria are common in uncooked or undercooked food products from animals, such as eggs, egg products, meat, meat products, poultry, unpasteurized milk and other unpasteurized dairy products. However, thorough cooking and processing will kill the bacteria. *Salmonella* can contaminate any type of food. A food handler with *Salmonella* may get bacteria on the food if his or her hands are not washed thoroughly before preparing food.

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

- Cook all poultry, meat and egg products thoroughly to at least 165°F internal temperature.
- 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 vegetables 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, especially poultry or reptiles
 - Before eating
 - More often when you or someone in your house is sick

How can I prevent the spread of *Salmonella* on the farm?

- 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 are 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 infection with *Salmonella* or other germs.
- Keep house pets out of the barn to keep them from becoming infected or tracking manure into the house.
- Live baby poultry can carry *Salmonella* and look healthy, but can still expose people to *Salmonella* bacteria. Live poultry may have *Salmonella* in their droppings and on their bodies (feathers, feet and beaks) even when they appear healthy and clean. Children can be exposed to *Salmonella* by holding, cuddling or kissing the birds, or by touching things where the birds live such as cages, feed and water bowls. Be safe by using biosecurity measures to prevent exposure to *Salmonella* bacteria.

Printed by University of Arkansas Cooperative Extension Service Printing Services.

TERRY CONGER, DVM, PhD, is poultry health specialist/epidemiologist with USDA-APHIS Veterinary Services in Little Rock. **F. DUSTAN CLARK**, DVM, PhD, is professor, Extension veterinarian and associate Poultry Center director of Extension with the University of Arkansas Division of Agriculture at the Center of Excellence for Poultry Science, University of Arkansas in Fayetteville. **SUSAN WEINSTEIN**, DVM, MPH, is state public health veterinarian with the Arkansas Department of Health in Little Rock. **BRANDON DOSS**, DVM, is assistant state veterinarian with the Arkansas Livestock and Poultry Commission in Little Rock.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension Service, University of Arkansas. The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.

FSA8016-PD-4-2014N