

PUBLIC HEALTH REFERENCE SHEET

Salmonellosis



Name	<i>Salmonella</i> species
Reservoir & Transmission	Domestic and wild animals; including poultry, reptiles, amphibians, swine, cattle, rodents, and pets. Humans are also a reservoir Direct or indirect contact with infected animals or their environments Ingestion of contaminated food or water
Incubation Period	From 6 to 72 hours, usually about 12 to 36 hours
Common Symptoms	Diarrhea (may be bloody), abdominal pain, nausea, and/or sometimes vomiting
Gold Standard Diagnostic Test	Culture
Risk Groups	Everyone is susceptible. Children under 5 years old have higher rates of infection than any other age group
Geographic Significance	Worldwide

What is Salmonellosis?

Salmonellosis is a diarrheal illness caused by infection with a group of bacteria called *Salmonella*.

What is the occurrence of Salmonellosis?

In the U.S., the CDC estimates *Salmonella* causes about 1.2 million illnesses, 23,000 hospitalizations, and 450 deaths every year. Among these cases, about 1.1 million are acquired in the U.S. and food is the source of infection for about 1 million illnesses, 19,000 hospitalizations, and 380 deaths. Salmonellosis infections occur more often in the summer than in the winter.

How is Salmonellosis transmitted?

Salmonella bacteria are found in the intestinal tracts of humans and other animals, especially reptiles. Most people get *Salmonella* by eating undercooked and raw foods such as beef, poultry, milk, eggs, and vegetables contaminated with the bacteria. It can also be spread by contact with contaminated water and infected animals. Reptiles and birds, especially baby chicks and ducklings, can carry *Salmonella*.

Who is at risk for Salmonellosis?

Although anyone can be exposed to the bacteria, children are at the highest risk for *Salmonella* infection. Children under the age of 5 have higher rates of *Salmonella* infection than any other age group. Young children, older adults, and people with weakened immune systems are the most likely to have severe infections.

What are the signs and symptoms of Salmonellosis?

The symptoms of Salmonellosis include diarrhea (which may be bloody), abdominal pain, nausea, and/or sometimes vomiting. Symptoms typically occur between 12 to 72 hours after infection, and the illness usually lasts 4 to 7 days. Most individuals recover without treatment.

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What are potential complications of Salmonellosis?

Some individuals may experience severe diarrhea and require hospitalization. *Salmonella* infection may spread from the intestines to the bloodstream and then to other body sites; this infection can cause death unless the person is treated promptly with antibiotics.

How is Salmonellosis diagnosed?

Identification of *Salmonella* is usually determined by culture of stool or blood. Further testing can determine the specific serotype.

How is Salmonellosis treated?

Salmonella infections often do not require treatment unless the patient becomes severely dehydrated or the infection spreads from the intestines. Persons with severe diarrhea may require rehydration, often with intravenous fluids. Antibiotics are not usually necessary unless the infection spreads from the intestines.

How can Salmonellosis be prevented?

Do not eat raw or undercooked eggs, poultry, meat, or unpasteurized dairy products. Wash hands, cutting boards, counters, knives, and other utensils thoroughly after touching uncooked foods to avoid re-contamination and cross-contamination. Wash fruits and vegetables thoroughly before consuming. Wash hands before preparing and/or eating food. Wash hands after each toilet visit and after contact with animals and animal feces, including petting zoos and livestock shows. Wash hands after handling reptiles. Reptiles are not appropriate pets for small children and should not be in the same house as an infant.

What are some Public Health considerations?

- Specify the serotype characterization (O and H antigen), if known.
 - INCLUDES: *Salmonella* species, including *Salmonella* Paratyphi.
 - EXCLUDES: *Salmonella* Typhi. See Typhoid Fever case definition.
- Document if the patient works in, lives in, or attends a high-transmission setting such as food handling, daycare, school, group living, health care, training center, or ship.

References:

Defense Health Agency. 2022. *Armed Forces Reportable Medical Events: Guidelines and Case Definitions*.

<https://www.health.mil/Reference-Center/Publications/2022/11/01/Armed-Forces-Reportable-Medical-Events-Guidelines>

Heymann, David L. ed. 2022. *Control of Communicable Diseases Manual*. 21st Edition. Washington, DC: APHA Press.

“Salmonella,” Centers for Disease Control and Prevention (CDC), last reviewed October 24, 2023.

<https://www.cdc.gov/salmonella/>

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