

Salmonellosis Prevention

The best way to avoid *Salmonella* infections is to make sure that everything is thoroughly cooked. Here are additional ways to prevent salmonellosis:

- 1 Wash hands and surfaces often.** Always wash after touching meat or animals, going to the bathroom, or changing a diaper.
- 2 Wash hands, cutting boards, dishes and utensils with hot, soapy water before handling food and after handling raw meats.**
- 3 Separate raw meat, poultry and seafood from other foods in your refrigerator.** Their juices can contaminate other food with bacteria.
- 4 Scrub all fruits and vegetables in running water.** Do not eat raw vegetable sprouts (such as alfalfa or broccoli sprouts) if you are at high risk of illness.
- 5 Wash and chill melons before slicing.** Choose melons that have damage-free rinds. Keep melon slices refrigerated.
- 6 Keep all meats 41°F and eggs 45°F or colder.** Defrost meat in the refrigerator.
- 7 Refrigerate leftovers promptly.** Reheat all leftovers to 165°F or hotter.
- 8. Keep turtles, snakes, and other reptiles away from young children.**
- 9 Use pasteurized milk and egg products.** Do not eat raw milk or undercooked eggs.
- 10 Cook to the proper temperature.**
 - 165°F--Poultry and Casseroles
 - 155°F--Hamburger and Sausage
 - 145°F--Fish, shellfish, lamb, intact beef (not ground beef), pork, and hot dogs

Selected Unusual *Salmonella* Outbreaks

Pasteurized milk. In 1985, pasteurized milk was linked to one of the largest U.S. outbreaks of salmonellosis. 16,000 confirmed cases of infection were linked to pasteurized milk that had accidentally been contaminated with raw milk in a Chicago dairy.

Cereal. The first U.S. *Salmonella* outbreak associated with a commercially-boxed cereal occurred in 1998. Over 200 cases were reported from at least 11 states. *Salmonella* was also found in samples from unopened boxes of the cereal; the cereal was voluntarily recalled.

Cantaloupe. Salmonellosis has been linked to melons since at least 1990 when cantaloupe caused 245 illnesses in 30 states. Grown on the ground, melons may be contaminated on their surface with dirt, animal waste, or bacteria, including *Salmonella*. Cutting an unwashed melon through a dirty rind may contaminate the edible part. Too much time (over 4 hours) at room temperature can let bacteria grow that may cause illness. Always make sure sliced melons have been kept cold before you eat them.

For more information: Benton-Franklin Health District

7102 W. Okanogan Pl.
Kennewick, WA 99336 (509) 460-4205

www.bfhd.wa.gov

Check our other brochures:

"Foodborne Illness Facts" "Egg Safety 101"
"Pet/Reptile-Associated" "Turkey Safety"
Salmonellosis"

Websites:

Food & Drug Administration Bad Bug Book
<http://www.fda.gov/Food/FoodbornIllnessContaminants/CausesOfIllnessBadBugBook/>
Centers for Disease Control-Salmonella Information
www.cdc.gov/ncidod/diseases/submenu/sub_salmonella.htm

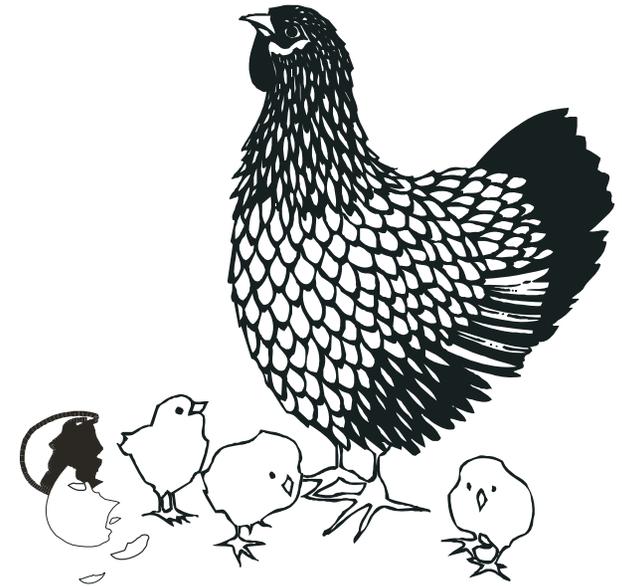
Phone numbers:

WSU Cooperative Extension
(509) 735-3551
USDA Meat and Poultry Hotline
1-888-674-6854

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Salmonella

Facts About Germs Series



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Salmonella

Salmonella (a group of over 2400 different bacteria with similar characteristics) is commonly found in the intestinal tracts and waste of animals. The bacteria are also widespread in the environment and can be found in water, soil, insects, and animal feed. Although the bacteria can be found in salmon, they are not named for the fish; they are actually named after the veterinarian that discovered them in 1885, Daniel Salmon.

Salmonellosis: infection with *Salmonella*

Occasionally, the bacteria can cause human illness. It is estimated that between 2-4 million Americans have *Salmonella* infections each year. Two of the most common types of *Salmonella* that cause foodborne illness are *Salmonella* Enteritidis (usually associated with poultry and eggs) and *Salmonella* Typhimurium (usually caused by poultry, cattle, meats or meat products, and unpasteurized milk).

Salmonellosis from pets

In addition to getting salmonellosis from food, people may also become sick from handling pets, animal feed or cleaning animal cages. [Also see our pet-associated salmonellosis brochure.]

From the Food Safety Files: Who was Typhoid Mary?

Mary Mallon was an immigrant to the United States. In 1906, she was a typhoid carrier and, unfortunately, a cook. Typhoid fever (a severe illness that can cause nausea, vomiting, fever and death) is caused by *Salmonella* Typhi and is spread by the feces of infected people. A carrier is someone with an illness but has no obvious symptoms and can still spread the disease. Mary Mallon unknowingly caused several typhoid outbreaks, leading to many illnesses and deaths. To help keep her from spreading the illness, she was quarantined for the majority of her life in a New York hospital. Typhoid carriers are now generally prohibited from working in food service in the U.S.

Today, about 400 Americans get typhoid fever each year—about 75% of these cases are caused while traveling out of the U.S. Typhoid fever is more common in areas of the world where handwashing is less frequent and water is more likely to be contaminated with sewage.

Symptoms

The symptoms and severity of salmonellosis will range depending on the type of *Salmonella*, the health and age of the person infected, and the number of bacteria ingested.

Although anyone can get sick, the people that are most at risk for illness or severe symptoms are:

- Elderly
- Infants
- Chronically ill with other illnesses

Symptoms include:

- Nausea and loss of appetite
- Severe stomach pain
- Headache
- Chills
- Fever (up to 105°F)
- Severe diarrhea (sometimes bloody)

Symptoms usually begin 12-48 hours after infection and usually last from 4-7 days. People with symptoms should contact their doctor. A laboratory test is the only way to determine if the person has salmonellosis.

Salmonella & Antibiotic Resistance

Most cases of salmonellosis are self-limiting (go away on their own) and the rest are usually treatable with antibiotics. Some types of *Salmonella*, however, have recently been identified as resistant to many commonly-used antibiotics.

Antibiotic-resistance reinforces the importance of preventing illness in the first place through proper food safety, cleanliness, and animal handling practices.

Salmonella Enteritidis and Eggs

Years ago, egg-associated salmonellosis cases were usually caused by eggs that had been contaminated with animal waste. In the 1970's, however, stringent procedures for inspecting, cleaning and disinfecting eggs reduced the number of salmonellosis cases caused by external contamination of eggshells.

Today, most egg-associated salmonellosis cases are caused by *Salmonella* Enteritidis inside the egg. Even a healthy-looking hen can be infected and can contaminate the egg in her body *before* the shell is formed. To confuse the issue even more, infected hens can lay many normal eggs before occasionally laying a contaminated egg.

It has been estimated that 1 in 20,000 eggs is contaminated with *Salmonella*. Contaminated eggs will look, smell and taste the same as regular eggs.

To reduce your risk of infection from eggs:

Keep eggs refrigerated. Refrigeration keeps most bacteria from growing.

Cook eggs until the white and yolk are firm. Cooking reduces the number of bacteria in the egg. Use cooked recipes or pasteurized eggs for traditionally-undercooked egg products like egg nog, Hollandaise sauce, and eggs served sunny-side up.

Do not eat undercooked or raw eggs (including batters and doughs).

