

SALMONELLOSIS

Department of Human Services, Division of Disease Control (207) 287-5301
Salmonellosis is an infection of the gastrointestinal tract (the stomach and intestines) caused by the bacterium *Salmonella*. About two thousand different strains of *Salmonella* have been identified. The infection can cause disease in both humans and animals and is a major cause of gastrointestinal illness in the U.S. Although the disease is usually limited to the gastrointestinal system, and most people do not experience any serious medical complications, the *Salmonella* organism can spread to other systems of the body such as the blood and bone. This may cause serious complications in very young, elderly, or debilitated individuals.

An infection with *Salmonella* is usually acquired by eating food which has been contaminated by the bacterium and has not been properly prepared or cooked. The infection may also be spread person-to-person when hands, inadvertently contaminated with an infected person's stool, are brought into contact with the mouth. Person-to-person transmission occurs commonly in day-care centers and other institutions where personal hygiene may be poor due to age (infancy or elderly) or to disability. Salmonellosis can also be transferred in this manner among household members. *Salmonella* organisms are commonly found in raw animal-derived food products such as eggs or egg products, meat or meat products, poultry, and unpasteurized milk and dairy products made with unpasteurized milk. *Salmonella* may also be present in any type of food if it is contaminated at any stage between processing, cooking and eating. Thorough cooking or other appropriate processing will kill the organism and make the food product safe to eat.

Salmonella organisms have been found in the stool of both sick and apparently healthy people and animals. Many domestic animals, including dogs and cats, pet turtles, reptiles and chicks, poultry, cattle and swine, have been found to carry the organism. The animals might not show signs of being infected. *Salmonella* has also been found in a variety of wild animals. Careful hand washing after contact with animals is recommended to prevent the transmission of *Salmonella*.

Salmonellosis is usually diagnosed through laboratory examination of a stool specimen.

Identification usually takes several days to complete. Most people who are otherwise healthy recover on their own and do not require treatment. Antibiotics may be given to those individuals (such as infants and the elderly) who may not be able to fight off the infection on their own. Antibiotic treatment may prolong the time *Salmonella* can be found in the stool, therefore prolonging the time it may be passed to others.

Symptoms of salmonellosis can appear from 6 to 72 hours after swallowing the bacteria, but usually are present within 24 hours. The most common symptoms are abdominal pain, diarrhea, nausea, vomiting, fever, headache and weakness. Some people who are infected with *Salmonella* may have only minor symptoms and some may have no symptoms. These people, who may still excrete the organism in their stools, may be the source of infection for others.

Salmonellosis can be prevented by practicing good hygiene before eating and when preparing food. General guidelines include:

Always thoroughly wash your hands with soap and water before meals, before preparing foods, after using the bathroom, after changing diapers and after playing with pets.

Make sure that all food is thoroughly cooked, especially poultry and eggs. Do not eat raw or cracked eggs, unpasteurized milk or any other dairy product made with unpasteurized milk.

Avoid contaminating foods which will not be further cooked, such as vegetables to be eaten raw, with animal derived products. For example, wash hands, utensils and work surfaces which have been in contact with raw poultry before making salad.

If you are caring for a person with salmonellosis or diarrhea, use special precautions after contact with the person's stool (for example, after changing diapers). Dispose of soiled diapers, clean changing surfaces and wash hands carefully.

If you have a child in day care who has salmonellosis or diarrhea, alert the day care provider so that precautions against its spread can be instituted. The day care provider should contact the Epidemiology Program in the Bureau of Health for recommendations.

Consult with your physician whenever you experience prolonged diarrhea.

The Bureau of Health will determine what requirements apply in each situation. An infected food handler, child care worker or health care worker may be required to refrain from work activities until they have two consecutive negative stool cultures taken at least 24 hours apart. Contact the Bureau of Health at 1-800-821-5821 for specific information.

Nancy Dube
School Nurse Consultant
Department of Education
624-6688/Nancy.Dube@maine.gov