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Oregon State University

CLEANLINESS IS THE ANSWER

SALMONELLA ARE EVERYWHERE

Salmonella are one of the most widespread bacteria known to man. They are found in a wide variety of foods and animals in every part of the world—from the very wet to the very dry—from the North and South poles to the equator. They probably have been on earth for as long as animals and man have inhabited it. More than 1,200 different kinds of Salmonella have been identified.

Salmonella is a member of a group of bacteria that cause food poisoning. Bacteria are tiny one-celled organisms that can be seen only with a microscope. Other well-known members of the group that cause food poisoning are Staphylococcus or "Staph," Streptococcus or "Strep," and Clostridia.

Only Salmonella will be discussed in this leaflet since the prevention and control measures suggested will work equally well for other food-poisoning bacteria.

Salmonella has nothing to do with salmon. It was named after Doctor Daniel E. Salmon who helped identify this bacteria about 80 years ago.

SALMONELLOSIS CAN BE SERIOUS

Salmonella infection of the food-poisoning type is caused by eating or drinking many Salmonella bacteria. The symptoms are abdominal pain, diarrhea, chills, fever, frequent vomiting, and prostration. They appear within 7 to 72 hours after eating food containing live bacteria. This disease is known as Salmonellosis, and it may be very serious for the very young and the very old.

What often happens is that the Salmonella is either present in the food as it comes from the processing plant or the food becomes contaminated somewhere in the marketing chain.

The food may become contaminated with Salmonella in the vehicles used to haul it to the store or restaurant. It may become contaminated within the store or restaurant or even in the home.

Many cases of Salmonella infection have been traced to faulty handling of the product *AFTER* it left the processing plant. It may even become contaminated after it is cooked.

WHERE ARE SALMONELLA FOUND?

Salmonella are found throughout the world—in the desert and in high rainfall areas—in the arctic and at the equator. Freezing does not kill Salmonella; it only prevents multiplication.

Wherever the location, Salmonella bacteria are transmitted by animals, both domestic and wild, including pigs, poultry, cattle, rats, dogs, cats, reptiles, insects, toads, turtles, fish, birds, and human beings.

Nearly all of the 1,200 types of Salmonella so far discovered have been recovered from the intestinal contents of these hosts. Salmonellosis is a filth disease. It is generally spread through the feces of both animals and man.

Water can also be a carrier of Salmonella. In one western city it was estimated that 15,000 people became ill from drinking contaminated water. When the source of the infection was determined, prompt chlorination of the city water supply stopped the epidemic.

Dust and floor dirt may also be a means of contamination.

WASH YOUR HANDS

"SALMONELLA SAM"—A PUBLIC MENACE

People also serve as carriers of Salmonella. It is estimated that among every 10,000 people we can expect to find 25 citizens who are Salmonella carriers. Thus we have another public menace—"Salmonella Sam."

Carriers are free of symptoms, but they may contaminate all they touch. And most of these people will feel perfectly healthy. After even a mild case of Salmonellosis, a person will shed Salmonella from several weeks to a year or more.

What kinds of foods would you expect to find Salmonella in? They are most often found in foods of animal origin, including meat and meat products, poultry, eggs, milk and milk products, and fish.

Salmonella usually enter our body through what we eat, what we drink, or anything we might put in our mouths that is contaminated.

Most illnesses due to Salmonella are the result of eating or drinking contaminated food in which the bacteria have greatly increased in numbers as a result of favorable growth conditions. Therefore, to prevent Salmonellosis, strict sanitation measures must be followed not only in food plants but also in our homes.

Elimination of Salmonella is difficult because the bacteria are almost everywhere. Therefore, cleanliness in food handling is extremely important.

TO PREVENT SALMONELLOSIS . . .

- Wash your hands thoroughly before handling any food.
  Wash them again after handling raw meats, poultry, and vegetables.
- Thoroughly wash all foods that are eaten raw, such as vegetables.
- Keep working surfaces, drainboards, and utensils scrupulously clean.
- Place meat, poultry, and other perishables in the refrigerator immediately upon returning from the market or upon delivery. Refrigerator temperature should be 40 degrees or below.
- Cook poultry, pork, and ground meat until well done. A temperature of 165 degrees will destroy Salmonella. Beef steaks and beef roasts would have only surface contamination and could safely be served rare.
- Cooked food that has not been consumed should be promptly refrigerated. Some "left-overs, such as combination dishes, should be thoroughly reheated before serving again.
- Keep perishable foods chilled when you take them on a trip or a picnic. Foods that may spoil without refrigeration should not be exposed to warmer temperatures for more than one-half hour before eating.

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