



FOODBORNE ILLNESS EDUCATION SERIES

NONTYPHOIDAL SALMONELLA

Salmonella is one of the “Big Six” microorganisms that is highly infectious and can cause serious foodborne illness. *Salmonella* has long been associated with eggs and poultry, but foodborne illness outbreaks caused by *Salmonella* have occurred in other foods including peanut butter and tomatoes. This knowledge sheet focuses on nontyphoidal *Salmonella* species. Foodservice establishments and retailers must be aware of this microorganism and how to protect food from contamination.

TRANSMISSION, SYMPTOMS, AND STATISTICS

- *Salmonella* infection can be transmitted through eggs, raw meats, raw poultry, raw seafood, produce, and dairy products or on foods touched by an infected food handler that does not wash their hands after using the restroom and then prepares food.
- *Salmonella* species have also been known to survive in low-moisture foods such as peanuts, nuts, spices, and cake mixes contaminated with fecal material from insects, rodents, birds, or contaminated processing equipment.
- Salmonellosis infection symptoms include: nausea, vomiting, fever, severe abdominal cramping, diarrhea, and headache. The onset time is anywhere from 12 hours to 72 hours after exposure, and the duration is 4 to 7 days.
- There are approximately 1.35 million cases of salmonellosis annually in the U.S. Most individuals are susceptible; however, the illness is most severe in young children, the elderly, and immunocompromised individuals.



ABOUT NONTYPHOIDAL SALMONELLA SPECIES

Salmonella strains are naturally found in the gastrointestinal tracts of various animals, including livestock, wildlife, pets, reptiles, amphibians, and humans.

Salmonella may also be found in water, soil, insects, or in food contaminated with fecal material.

Outbreaks have been associated with eggs and raw meats; produce growing in fields can also become contaminated through water and soil.



KEEP YOUR OPERATIONS AND CUSTOMERS SAFE

- Verify suppliers: are monitoring produce growers for Good Agricultural Practices; have Hazard Analysis Critical Control Point (HACCP) and intervention programs for *Salmonella*; have trace-back capabilities; and are in compliance with all federal and local regulations.
- Ensure your locations have these programs in place: HACCP plans and Standard Operating Procedures (SOPs) for produce washing, personal hygiene, prevention of cross-contamination, and sanitation.
- Prevent roof leaks and sewage backflow. Kitchen closure is required if these occur in a food prep area.
- Keep pests out of food prep and processing areas.
- Have an employee wellness policy to exclude those with symptoms such as vomiting and diarrhea, or anyone diagnosed with illness resulting from *Shigella species*, *Salmonella* Typhi, nontyphoidal *Salmonella*, Shiga toxin-producing *E. coli*, hepatitis A, or norovirus.
- Immediately follow-up on any customer food-borne illness claims. Alert health department of multiple reports so any outbreaks can be investigated quickly.

4 MUST-KNOW FACTS FOR LOCATION EMPLOYEES

- 1** Wash your hands between each task and after using the restroom. Use hot, soapy water. Wash for at least 20 seconds. Pay special attention to scrubbing beneath fingernails, between fingers, and around wrists.
- 2** Avoid cross-contamination by washing and sanitizing utensils, equipment, and other food contact surfaces when switching between tasks. Wash vegetables and fruits before cutting.
- 3** Cook raw meats, poultry, and eggs to safe final internal temperatures: chicken/turkey to 165°F/74°C; ground beef/ground pork/injected steaks to 155°F/68°C; egg dishes to 155°F/68°C; seafood to 145°F/63°C; eggs cooked to order to 145°F/63°C.
- 4** Do not come to work when you are sick with vomiting, diarrhea, or fever with sore throat. You can spread dangerous germs to food, surfaces, and other people.