



FOODBORNE ILLNESS EDUCATION SERIES

SHIGA TOXIN-PRODUCING *E. COLI*

Shiga toxin-producing *E. coli* (STEC) is one of the “Big Six” microorganisms that is highly infectious and can cause severe foodborne illness. It has been implicated in numerous outbreaks and recalls. Foodservice establishments must be vigilant to keep customers safe.

TRANSMISSION, SYMPTOMS, AND STATISTICS

- *E. coli* infection can be transmitted through food contaminated with fecal material such as fruit, vegetables, dairy products, and raw meats, or by an infected food handler who does not wash their hands after using the toilet and then prepares food that is served without further cooking.
- According to the U.S. Centers for Disease Control and Prevention (CDC), there are approximately 265,000 STEC infections annually.
- Approximately 1% of U.S. foodborne illness outbreaks and 3% of deaths from all outbreaks are traced back to STEC.
- Symptoms may include: watery or bloody diarrhea, fever, severe abdominal cramping, vomiting, and nausea.
- The onset time is anywhere from 12 hours to 48 hours and the duration is 5 to 7 days.
- Anyone is susceptible, but the illness is most severe in young children, the elderly, and immunocompromised individuals.
- In some people, especially young children, STEC can cause a sometimes fatal kidney disease called Hemolytic Uremic Syndrome (HUS).

ABOUT *E. COLI*

STEC strains are naturally found in the gastrointestinal tracts of healthy animals and are transmitted from fecal contamination. This can happen in many ways, such as livestock waste washing onto produce fields or through equipment and utensils soiled from contact with raw food then being used on ready-to-eat food.

The most often reported strain is O157:H7, but there are other strains that have been identified in foodborne illness.

E. coli can survive and grow slowly at low temperatures and under acidic conditions. These bacteria can survive the acidity of the stomach to pass into the intestines where STEC produce a toxin that damages the lining of the intestines.



KEEP YOUR OPERATIONS AND CUSTOMERS SAFE

- Verify suppliers are monitoring produce growers for Good Agricultural Practices; are testing meats prior to shipment; have trace-back capabilities; and are in compliance with all federal and local regulations.
- Ensure your locations have programs in place such as Hazard Analysis Critical Control Point (HACCP) plans and Standard Operating Procedures (SOPs) for produce washing, personal hygiene, prevention of cross-contamination, and sanitation.
- Cook raw meats to proper temperature (see below).
- Have an employee wellness policy to exclude those with symptoms such as vomiting and diarrhea, or anyone diagnosed with an illness resulting from *Shigella spp.*, *Salmonella* Typhi, non-typhoidal *Salmonella*, STEC, hepatitis A, or norovirus.
- Follow-up on any customer foodborne illness claims without delay, and alert health department of multiple claims 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 under running water or in an approved produce wash solution before cutting or serving. Wear single-use gloves when handling washed produce.

3

Cook raw meats/poultry to safe final internal temperatures: ground beef/ground pork/injected steaks to 155°F/68°C; seafood to 145°F/63°C; and chicken/turkey to 165°F/74°C.

4

Do not come to work when you are sick with foodborne illness symptoms such as vomiting and diarrhea. You can spread dangerous pathogens to food, surfaces, and other people.