What is \textit{E. coli}?

Foodborne illness can be caused when contaminated water or food is eaten. \textit{Escherichia coli} (abbreviated as \textit{E. coli}) are bacteria that can contaminate food and water. Although some strains of \textit{E. coli} are harmless, others can make you sick. One group of \textit{E. coli} causes illness by making a poison called Shiga toxin (Shiga toxin-producing \textit{E. coli} (STEC)). You may be familiar with one Shiga toxin-producing strain, \textit{E. coli} O157:H7, which is often mentioned in news reports about outbreaks of \textit{E. coli} infections.

What are the symptoms of \textit{E. coli} infection?

Symptoms of \textit{E. coli} infection usually begin 3 to 4 days after exposure, but the time may range from 1 to 9 days. Symptoms may include mild to severe stomach cramps, diarrhea which is often bloody (hemorrhagic colitis), vomiting, and sometimes fever. Most people get better within 2 to 9 days, but others may develop a potentially life-threatening complication known as hemolytic uremic syndrome (HUS). In HUS, damaged red blood cells clog the kidneys and can lead to kidney failure. Most people with HUS recover within a few weeks, but some may suffer permanent kidney damage or death. HUS can occur in people of any age, but is most common in children under 5 years old and the elderly.

How is \textit{E. coli} spread?

The types of \textit{E. coli} that cause foodborne illness can be spread through contaminated water or food, or through contact with infected animals or people. Methods of contamination can include:

- eating food directly contaminated by stool from infected people or animals,
- eating food prepared or served by an infected person who does not practice good personal hygiene,
- touching cattle or other infected animals such as in petting zoos and animal exhibits, and
- using, drinking, swimming in, or playing in untreated or sewage-contaminated water.

Some foods frequently contaminated by \textit{E. coli} include:

- undercooked ground beef,
- unpasteurized (raw) milk and soft cheeses made from raw milk,
- unpasteurized juice, and
- raw produce (like spinach, sprouts, and lettuce) contaminated by animals, unclean irrigation water, and raw meat juices.

Why is \textit{E. coli} important for child nutrition professionals?

People working with food who are sick with \textit{E. coli} can easily make others ill. A sick child nutrition employee can contaminate the food he or she is handling. Those eating the contaminated food may become ill. People infected with \textit{E. coli} are typically contagious for at least 1 week. Some people may be contagious for as long as 3 weeks. It is important for people to always use good handwashing and other hygienic practices, especially after they have recently recovered from \textit{E. coli} illness.
**E. coli Fact Sheet**

**How can E. coli be prevented?**

- Wash your hands thoroughly after using the restroom or changing diapers and before preparing or eating food.
- Wash your hands after contact with animals or their environments (at farms, petting zoos, fairs, even your own yard).
- Avoid bare hand contact with ready-to-eat and ready-to-serve foods.
- Report symptoms of diarrhea and vomiting, diagnosis of *E. coli*, or exposure within the past 3 days to others with *E. coli* to your manager and/or director. Do not work when you have these symptoms.
- Cook meats thoroughly. It is important to use a thermometer, as color is not a very reliable indicator of proper temperature.
- Purchase and serve only pasteurized dairy products and pasteurized juices.
- Store foods properly keeping raw meat and poultry separated from ready-to-eat foods. Always store raw meat and poultry in the bottom shelf.
- Keep raw meat and poultry separate from food that will not be cooked to the same temperature, and ready-to-eat foods.
- Wash raw fruits and vegetables under clean, running water. Ensure produce is purchased from reliable sources.
- Prevent cross contamination in food preparation areas by thoroughly washing, rinsing, and sanitizing all food contact surfaces, especially after preparing raw meat.

This fact sheet is part of a series of six fact sheets on foodborne illness control and prevention.

**References:**


This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service through an agreement with the Institute of Child Nutrition at the University of Mississippi. The contents of this publication do not necessarily reflect the views or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

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