E.COLI – IT’S (STILL) IN THE NEWS

Most recently we’ve heard about the multistate *E. coli* outbreak linked to Chipotle Mexican Grill Restaurants. But do you understand *E. coli*: what it is, how it affects you and your food service business, and the preventive practices you need to follow? Training your employees about how to prevent this bacterium from becoming a problem in your establishment is critical. Here’s a basic overview with links to reliable online resources. Take time today to review this with your employees.

What is *E. coli*?

*E. coli* is the name of a large and diverse group of bacteria. Most strains of *E. coli* are harmless and live in the intestines of healthy humans and ruminant animals (cattle, goats, sheep, deer, and elk). However, some strains produce a powerful toxin that can cause severe illness. The strain of *E. coli* that we hear the most about is *E. coli* O157:H7. The current outbreak is the strain *E. coli* O26. Both strains cause diarrhea, often bloody and can sometimes cause kidney failure and even death.

Why do People Get Sick?

Some strains of *E. coli* cause illness by making a toxin called Shiga toxin. The bacteria that make these toxins are called “Shiga toxin-producing” *E. coli* or STEC for short. *E. coli* O157:H7 is the most commonly identified STEC in North America and was first identified as a pathogen in 1982.

What are the Symptoms?

People usually get sick from STEC between 2 to 8 days (average 3 to 4) after swallowing the bacteria (which you cannot see, smell or taste). Symptoms include stomach cramps and diarrhea (often bloody). Less likely symptoms include vomiting, low-grade fever and kidney failure called hemolytic uremic syndrome (HUS). Most people get better within 5 to 7 days. Some infections are mild, but others are severe or even life-threatening.

How is it Spread?

*E. coli* can be found in water, food, soil, or on surfaces that have been contaminated with animal or human feces. Infections start when you get tiny (invisible) amounts of feces containing the bacteria in your mouth.

People can become infected by:

- Eating contaminated food, such as undercooked hamburger (ground beef) or raw produce such as sprouts and leafy greens.
- Drinking unpasteurized (raw) milk, juice, or cider; eating soft cheeses made from raw milk.
- Swallowing contaminated recreational water (lakes, streams, rivers, ponds, swimming pools, hot tubs).
- Contact with farm animals or pets.

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• Touching contaminated surfaces or objects and then touching their mouth or putting a contaminated object into their mouth.
• Not washing hands after using the bathroom or changing diapers and then eating food.

How is \textit{E. coli} Infection Prevented?

• Wash your hands with warm, soapy water for at least 20 seconds after using the bathroom, when changing tasks, and before and after preparing food. Train and re-train your staff on proper hand washing and talk to them about why it is a critical step to keeping food safe!
• Cook meats to the recommended minimum internal temperature and use a thermometer to be sure. Ground beef and meat that has been needle-tenderized should be cooked to 155°F for 15 seconds.
• Never use unpasteurized dairy products, juice, or cider.
• Properly handle, store, and prepare fresh produce (see links below). Be aware of the risk associated with fresh produce that is consumed raw (sprouts).
• Prevent cross contamination in food prep areas by thoroughly washing hands, counters, cutting boards, and utensils after they touch raw meat. After washing, sanitize all food contact surfaces and let air dry.

Sources: CDC \textit{Escherichia coli O157:H7} and other Shiga toxin-producing \textit{Escherichia coli} (STEC), Minnesota Department of Health Fact Sheet, \textit{Escherichia coli O157:H7}, June 2007, and \url{http://z.umn.edu/11yb}.

FOR MORE INFORMATION

The following links provide reliable, research based sources for information about \textit{E. coli}.
• CDC frequently asked questions about \textit{E. coli} \url{http://www.cdc.gov/ecoli/index.html}
• Minnesota Department of Health fact sheet on \textit{E. coli O157:H7} \url{http://www.health.state.mn.us/divs/idepc/diseases/ecoli/basics.html}
• Lots of info on fresh fruits, vegetables, and juices \url{http://www.foodsafety.gov/keep/types/fruits/index.html}
• Sprouts: What you should know \url{http://www.foodsafety.gov/keep/types/fruits/sprouts.html}

CLASS SCHEDULE AND ONLINE LEARNING

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Both certification and renewal courses are available in online options.

To learn more about the courses and to register, click on: \url{http://www.extension.umn.edu/food/food-safety/courses/}

For more class information: \url{www.extension.umn.edu/foodsafety}
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