

E. coli Bacteria

Escherichia coli (eh-sure-ee-she-ah coal-eye) are bacteria that are normally found in the intestines of both humans and food animals. Some strains of these bacteria can cause the intestinal illnesses and diarrhea that strike both infants and international travelers.

Two foodborne illness outbreaks in 1982 led to the discovery of a new type of E. coli that can cause severe gastrointestinal illness and complications. These E. coli O157:H7 (oh-1-5-7-H-7) bacteria (named after antigens that cause the production of antibodies) have been linked with recent foodborne illnesses in the Pacific Northwest.

E. coli O157:H7 bacteria are often called “hemorrhagic” (hem-or-ag-jick) because they can cause severe intestinal bleeding. Symptoms appear 3 to 9 days after ingesting the bacteria. They include severe abdominal cramps, followed by watery diarrhea that often becomes bloody.

The illness lasts 4 days on the average. It can lead to complications which are life-threatening. Children and the elderly are most likely to become seriously ill.

E. coli O157:H7 outbreaks happen infrequently. Most have been traced to undercooked ground beef. However, the bacteria could also be associated with other meats (such as veal, lamb and pork). Because bacteria aren't visible, they could be present on meat that has been visually inspected for wholesomeness by the U.S. Department of Agriculture.

Outbreaks have also been linked to sprouts and unpasteurized (heat-treated) apple cider.

E. coli and other bacteria occur naturally in the intestinal tracts of animals and are spread through feces. The surfaces of meat could therefore be contaminated. However, the interior tissue will not be. Ground beef is a special concern because any bacteria on the surface will be mixed throughout the meat.

Adequate cooking and safe food handling practices will prevent illness caused by E. coli O157:H7 and other harmful bacteria. Because bacteria are destroyed by heat, ground meat, chopped (cubed) steak, and meat loaf should be thoroughly cooked until well done. The center should be gray or brown and the juices should be clear with no trace of pink. A meat thermometer should register 160°F.

When you eat out, it's a good practice to request “well done” ground meat. The outsides of steaks and roasts should be well cooked to destroy bacteria on the surface. However, it is safe to eat these cuts rare.

Wash hands, utensils, and work areas with hot, soapy water after handling raw meat. Rinse cleaned cutting boards with chlorinated water (1 capful of chlorine bleach per gallon of water). This prevents transfer of naturally-occurring bacteria from the meat to foods that won't be heated before eating.

Reduce foodborne illness risks by avoiding raw milk. Even milk from inspected dairy plants could be a source of E. coli O157:H7 bacteria. Buy pasteurized milk instead. The heat of pasteurization kills harmful bacteria.

Buy pasteurized fruit juice (such as apple) or pasteurize it yourself at home by heating to 160°F (or until bubbles appear).

People who are susceptible to foodborne illness (such as pregnant women, young children, older adults, and those with serious illnesses such as cancer and AIDS) should avoid eating uncooked sprouts until a way is found to make them safe.

Always wash vegetables and fruits well before eating them.

To prevent person-to-person spread of E. coli O157:H7, wash your hands after using the bathroom or diapering infants.

Source: Family Food Education Program