What is Escherichia coli O157:H7?

Escherichia coli O157:H7 (E. coli O157:H7) is a bacteria that causes illness in people. Although most strains are harmless and live in the intestines of healthy humans and animals, E. coli O157:H7 produces a powerful toxin and can cause severe illness (i.e., kidney failure). The combination of letters and numbers following the name of the bacterium refers to the specific markers found on its surface and distinguishes it from other strains of E. coli.

How is E. coli O157:H7 transmitted?

E. coli O157:H7 is transmitted via ingestion of contaminated meat, milk, sprouts, lettuce (produce fertilized with infected cow manure), salami, unpasteurized juice, and swimming in or drinking sewage-contaminated water.

What are common symptoms associated with E. coli O157:H7 infections?

Symptoms will begin two to eight days after infection and include watery or bloody diarrhea, low-grade fever, and vomiting. Illness may be mild or severe. Children are more likely to have severe symptoms, including kidney failure and rarely death.

Will my pet develop an E. coli O157:H7 infection?

E. coli O157:H7 is most commonly found in the intestines of ruminants (cows, sheep, and goats). Occasionally, other animals will be infected. Animals infected with E. coli O157:H7 are not ill; therefore, you cannot identify a sick animal by looking at them.

How is it diagnosed?

E. coli is diagnosed by detecting the bacteria in the stool.

How is it treated?

Most people recover without antibiotic therapy. Antibiotic treatment is controversial. It is thought that treatment with some antibiotics may precipitate kidney complications. The best remedy is supportive care with plenty of fluids to prevent dehydration.

How can it be prevented?

- Cook all beef and hamburger thoroughly.
- Avoid cross contamination in your kitchen - keep raw meat separate from ready-to-eat foods.
- Wash hands, counters, and utensils with hot soapy water after being in contact with any raw meat. Drink only pasteurized milk and juices, including ciders.
- Wash fruits and vegetables thoroughly, especially those that will not be cooked.
- Drink municipal water that has been treated with chlorine or other effective disinfectants.
- Avoid swallowing lake or pool water.
- Make sure that persons with diarrhea, especially children, wash their hands carefully with soap and water after bowel movements to reduce the risk of spreading infection, and that persons wash hands after changing soiled diapers.
- Wash hands after handling or touching cattle, sheep, and goats or their pens or housing environment.

Additional Information:
- Centers for Disease Control and Prevention
- Minnesota Department of Health

This fact sheet is meant to provide basic information. For specific health concerns please contact your physician or veterinarian. Updated 2005.