



## Hawaii State Department of Health

### Disease Investigation Branch

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## Enterohemorrhagic *Escherichia coli*

(*E. coli* O157:H7)

### What is *E. coli* O157:H7?

*E. coli* O157:H7 is one of hundreds of strains of the bacterium *E. coli*. While most *E. coli* strains are harmless, this strain makes a powerful toxin, or poison and can cause severe illness.

### How do you get it?

*E. coli* O157:H7 can live in the intestines of healthy cattle and other animals. Meat may become contaminated during slaughter. Eating undercooked beef, especially ground beef, is a major cause of infection. Handling animals at farms and petting zoos can also be a cause of infection.

Other sources of the bacteria are raw sprouts, lettuce, spinach, unpasteurized milk, juice, and swimming in or drinking sewage-contaminated water.

The bacteria are also found in the stools of infected persons and can be passed from person to person if good hand washing habits are not followed.

### What are the symptoms?

*E. coli* O157:H7 infection often causes severe bloody diarrhea and stomach cramps. Usually little or no fever is present. In children under 5 years of age and the elderly, the infection can also cause a complication called hemolytic uremic syndrome, in which the red blood cells are destroyed and the kidneys fail.

### When do symptoms start?

Symptoms usually appear 3-4 days after exposure to the bacteria, but may be as short as 1 day or as long as 10 days.

### What is the treatment for the disease?

Most persons recover without medical treatment in 5-10 days. Antibiotics should not be used to treat this infection. Antidiarrheal agents like Imodium® should be avoided. Hemolytic uremic syndrome is a

life-threatening condition usually treated in an intensive care unit (ICU) in a hospital.

### Should a person with *E. coli* infection stay home from work or school?

Yes. Students with diarrhea should stay home from school until their doctor gives them permission to return. Food handlers, day care workers, and health care workers must have their doctor's permission to return to work, usually after a lab test shows they are no longer infected.

### How can you keep from getting it?

Do not eat undercooked ground beef. Ground beef should be cooked until a thermometer inserted into the thickest part of the meat reads at least 160°F. Ground beef should not be pink in the middle.

Be careful to avoid cross-contamination when cooking in your home. Keep raw meat separate from other foods. Wash hands, counters and utensils with hot soapy water after they touch raw meat. Never place cooked hamburgers on the unwashed plate that held the raw patties.

Drink only pasteurized milk, juice or cider.

Wash fruits and vegetables well, especially those that will not be cooked. Avoid raw sprouts.

Do not drink untreated water, and avoid swallowing water while swimming.

Wash your hands well after using the toilet, changing diapers and before preparing or eating food. After changing diapers, wash the child's hands as well as your own.

Wash your hands with soap and water after any contact with animals or livestock.

For more information, see the CDC's website at [http://www.cdc.gov/nczved/division/dfbmd/diseases/ecoli\\_o157h7/](http://www.cdc.gov/nczved/division/dfbmd/diseases/ecoli_o157h7/)