

## E. coli Bacteria: Exposure Risk and Prevention

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*Escherichia coli (E. coli) are a large and diverse group of bacteria found in water, food, and the intestines of people and animals. E. coli are essential to having a healthy human intestinal tract.*

Most strains of E. coli do not cause illness. However, some E. coli strains are pathogenic, meaning they can cause diarrhea, urinary tract infections and other illnesses outside of the intestinal tract.

### Exposure Risk

The six different “pathotypes” of E. coli bacteria that cause intestinal distress can be transmitted through contaminated water or food, or through contact with animals or people.

E. coli can affect anyone who is exposed to the bacteria. Factors that can increase exposure risk include:

- Immune system weakened by a chronic disease or illness
- Not washing hands after a bowel movement or changing a diaper
- Eating foods such as undercooked beef, unpasteurized milk and contaminated produce
- Taking antacid medications; stomach acids provide protection against bacteria
- Age – young children and the elderly are more susceptible

Human and animal feces can pollute ground and surface water, including water used to irrigate crops, parks and golf courses. Public water systems use chlorine, ultraviolet light or ozone to kill E. coli, although public health officials have linked some outbreaks to contaminated municipal water supplies. Private wells without any disinfecting system present exposure risks, as do swimming pools or lakes contaminated with feces.

### Signs, Symptoms and Treatment

Symptoms appear within a day to a week of exposure. In addition to diarrhea (sometimes containing blood), symptoms may include abdominal cramping, pain or tenderness; nausea or vomiting; and a mild (less than 101°F). Exposure to E. coli that causes diarrhea is diagnosed by testing a stool sample.

Medical professionals recommend rest, drinking clear fluids to help prevent dehydration and avoiding certain foods. Anti-diarrheal medication is typically not recommended because it can suppress the body’s ability to eliminate toxins. The infection usually resolves on its own with five to seven days.

It is advisable to contact a medical professional if diarrhea is persistent, severe or bloody. Severe cases can be life-threatening.

### Prevention

There is no immunization available for E. coli bacteria. To avoid exposure to E. coli in food and water:

- Drink bottled water if you are unsure about the source.
- Avoid unpasteurized milk, juice and cider.
- Thoroughly cook hamburger and other beef products.
- Wash your hands, raw produce and cooking utensils with clean water.

If you have questions about a potential work-related exposure, contact WorkCare.