

***E. coli* Infection (Shiga-toxin producing and HUS)**



Clinical Description:

Escherichia coli (*E. coli*) infection is a bacterial disease, with the most severe infection caused by *E. coli* strains that produce a potent toxin. These strains are known as Shiga-toxin producing *E. coli* (STEC). Symptoms can include bloody or non-bloody diarrhea, stomach cramps, low-grade fever, nausea, weight loss, and vomiting. Approximately 8% of people infected with STEC can develop the condition hemolytic uremic syndrome (HUS). This condition can lead to kidney failure and death.

Incubation Period:

Symptoms usually begin 3 - 4 days, range of 2 - 10 days, after exposure and last for approximately 5 - 10 days.

Mode of Transmission:

E. coli is transmitted by contaminated food or beverages or person-to-person by the fecal-oral route.

Period of Communicability:

A person can spread *E. coli* during acute illness and can shed *E. coli* in stool for up to three weeks after symptoms resolve.

Exclusion/Reporting:

Symptomatic persons diagnosed with STEC, HUS, or symptomatic persons linked by person, place, or time to a case are excluded from attending school until:

- Asymptomatic for at least 24 hours
- Disease prevention education is provided by the local health department

For more information on laws and rules regarding STEC or HUS see the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3-66) at: [http://www.in.gov/isdh/files/comm_dis_rule\(1\).pdf](http://www.in.gov/isdh/files/comm_dis_rule(1).pdf).

Prevention/Care:

Encourage frequent hand washing, particularly after using the restroom, assisting someone with diarrhea and/or vomiting, after contact with animals, after swimming, and before and after food preparation. Please refer to the ISDH Handwashing Campaign at <http://www.in.gov/isdh/24036.htm>. Enforce exclusion of ill students and staff members.

Outbreaks:

According to the ISDH Communicable Disease Reporting Rule (410 IAC 1-2.3) the definition of an outbreak means cases of disease occurring in a community, region, or particular population at a rate in excess of that which is normally expected. A STEC outbreak is two or more cases of a similar illness shown by an investigation to have resulted from a common exposure, such as ingestion of a common food. If an outbreak is suspected and/or documented, contact your local health department. For additional information and recommendations regarding the preparation for, and the management of an outbreak situation in a school setting, see Appendix A, "Managing an Infectious Disease Outbreak In a School Setting."

Other Resources:

Indiana State Department of Health Quick Facts Page (found on disease/condition page):

<http://bit.ly/12JLfD>

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/ecoli/>