



COMMONWEALTH of VIRGINIA

Department of Health

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CDC Health Alert Regarding Shiga toxin-producing *E. coli* O104:H4 infections in Germany

Dear Clinicians,

While it is not my intention to fill your inbox each week, I am committed to keeping you apprised of important and emerging public health issues or concerns.

Please be aware of the CDC Outbreak Notice regarding the Shiga toxin-producing *Escherichia coli* (STEC) bacteria that has caused at least 18 deaths and sickened more than 1,600 people in Europe.

Although we have not seen cases in Virginia or the U.S., for those of you who see patients who have traveled recently to Europe or who travel frequently, I am requesting that you read the CDC Outbreak Notice below in order to obtain guidance on evaluation and testing.

Please feel free to call your local health department or me if you have any questions.

Sincerely,

Karen Remley, MD, MBA, FAAP

State Health Commissioner

Outbreak Notice

Shiga toxin-producing *E. coli* O104:H4 infections in Germany

This information is current as of today, June 03, 2011 at 11:00 EDT

Current Situation

German health authorities have reported an outbreak of a severe illness called hemolytic uremic syndrome (HUS) in Germany since May 2, 2011. In this outbreak, HUS is being caused by an infection with Shiga toxin-producing *Escherichia coli* (STEC) bacteria. Many people have been hospitalized, several requiring intensive care, and some people have died. New cases are still being reported. For case counts and situation information, please see [Investigation Announcement: Outbreak of Shiga toxin-producing *E. coli* O104 \(STEC O104:H4\) Infections Associated with Travel to Germany](#). The organism causing

the outbreak has been identified as *E. coli* O104:H4, producing Shiga toxin. This strain of *E. coli* causes an illness similar to infection with *E. coli* O157:H7.

Most infections have been reported in people in northern Germany (mainly Bremen, Hamburg, Lower Saxony, and Schleswig-Holstein) or in people who have recently traveled to these areas. Cases in travelers to northern Germany have been reported in Denmark, the Netherlands, Spain, Sweden, and the United Kingdom.

German health authorities are investigating the outbreak but have not confirmed a source. They suspect that the source is contaminated food, possibly raw vegetables.

Advice for US Travelers to Germany

German health authorities recommend that people in Germany, especially in the northern part of the country, avoid eating raw tomatoes, fresh cucumbers, and leafy salads, until further notice. Travelers should also follow [regular food safety measures](#) when handling fruit and vegetables.

If you have traveled to Germany and have bloody diarrhea and stomach cramps or symptoms of HUS (see below), go to a doctor right away and tell him or her about your recent travel.

More Disease Information

STEC infections can cause different gastrointestinal symptoms, which often include severe stomach cramps, diarrhea (often bloody), and vomiting. If there is fever, it is generally not very high (less than 101°F [38.3°C]). HUS is a disorder that usually occurs when an infection in the digestive system (such as STEC) produces toxic substances that destroy red blood cells and cause kidney injury. Early symptoms of HUS include decreased frequency or volume of urination, feeling very tired, and losing pink color in the cheeks and inside the lower eyelids. Signs of HUS typically start 5–7 days after the start of diarrhea, and diarrhea or bloody stools may no longer be present when HUS develops.

Advice for Clinicians

If you care for a patient with bloody diarrhea or HUS who has recently been in Germany or has been in contact with someone recently returned from Germany, it is important to test for STEC O104:H4. Complete testing for STEC O104:H4 includes simultaneous culture of stool for *E. coli* O157 and assay of the stool for non-O157 STEC with a test that detects Shiga toxin. Clinicians and clinical laboratories should send *E. coli* O157 isolates and Shiga toxin-positive samples to public health laboratories as soon as possible for additional characterization. Any suspected STEC O104:H4 and HUS cases should be reported to health departments.

Helpful Links

For more information about STEC and HUS, visit:

- [Investigation Announcement: Outbreak of Shiga toxin-producing *E. coli* O104 \(STEC O104:H4\) Infections Associated with Travel to Germany](#)

- CDC's [Frequently Asked Questions](#) page about *Escherichia coli* O157:H7 and other STEC
- [Hemolytic-uremic syndrome](#) (Medline Plus, National Institutes of Health)

For more information about the outbreak in Germany, visit the following websites:

- [Outbreak of life-threatening haemolytic uremic syndrome \(HUS\) caused by bacterial infection](#) (Robert Koch Institut, Germany, May 31, 2011)
- World Health Organization
 - [EHEC outbreak: Increase in cases in Germany](#) (June 2, 2011)
 - [Outbreak of haemolytic uraemic syndrome in Germany](#) (May 27, 2011)
- [Outbreak of Shiga toxin-producing *E. coli* \(STEC\) in Germany](#) (European Centre for Disease Prevention and Control, May 27, 2011)
- [Large and ongoing outbreak of haemolytic uraemic syndrome, Germany, May 2011](#) (Eurosurveillance, May 26, 2011)