

Outbreak of *E. coli* Infections – Unknown Source 3

Final Update



Investigation Notice

Posted on December 18, 2020 at 3:00 PM ET

This outbreak is over. Learn how you can [prevent getting sick from *E. coli*](#). CDC, public health and regulatory officials in several states, and the U.S. Food and Drug Administration (FDA) investigated several multistate outbreaks of *E. coli* O157:H7 infections. This outbreak is different from two other *E. coli* O157:H7 outbreaks that occurred at the same time ([E. coli outbreak with unknown source 1](#) and [E. coli outbreak linked to leafy greens](#)).

Final Outbreak Information

At A Glance

- [Reported Cases](#): 18
 - [States](#): 9
 - Hospitalizations: 6
 - Deaths: 0
 - Recall: Yes
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- As of December 18, 2020, this outbreak is over.
 - A total of 18 people infected with the outbreak strain of *E. coli* O157:H7 were reported from 9 states.
 - Illnesses started on dates ranging from September 2, 2020, to November 6, 2020.
 - 6 people were hospitalized, and no deaths were reported.
 - Laboratory testing identified the outbreak strain in a sample of Tanimura & Antle romaine lettuce in a single-head package, but investigators were not able to determine if people got sick from eating the contaminated romaine lettuce.

- On November 6, 2020, Tanimura & Antle recalled its packaged single-head romaine lettuce.
- CDC worked with state officials and FDA to collect additional information, but the source of the outbreak could not be identified.

Advice to Consumers

Follow these general ways to [prevent getting sick from *E. coli*](#):

- Wash your hands after using the restroom or changing diapers, before and after preparing or eating food, and after contact with animals.
- Cook meats thoroughly. Use a food thermometer to check that the meat has reached a safe internal temperature.
- Don't cross-contaminate food preparation areas. Thoroughly wash hands, counters, cutting boards, and utensils after touching raw meat.
- Wash fruits and vegetables before eating, unless the package says the contents have been washed.
- Avoid raw milk, other unpasteurized dairy products, and unpasteurized juices.

Symptoms of *E. coli* Infection

- People usually get sick from Shiga toxin-producing *E. coli* (STEC) 2 to 8 days (average of 3 to 4 days) after swallowing the germ.
- Symptoms often include severe stomach cramps, diarrhea (often bloody), and vomiting. Some people may have a fever, which usually is not very high (less than 101°F/38.5°C).
- Some people with a STEC infection may get a type of kidney failure called hemolytic uremic syndrome (HUS).
- Antibiotics are not recommended for patients with suspected *E. coli* infections until diagnostic testing can be performed and *E. coli* infection is ruled out. Some studies have shown that administering antibiotics to patients with *E. coli* infections might increase their risk of developing HUS, and a benefit of treatment has not been clearly demonstrated.

Investigation Details

December 18, 2020

CDC, public health and regulatory officials in several states, and the U.S. Food and Drug Administration (FDA) investigated a multistate outbreak of *E. coli* O157:H7 infections.

Public health investigators used the [PulseNet](#) system to identify illnesses that may have been part of this outbreak. PulseNet is the national subtyping network of public health and food regulatory agency laboratories coordinated by CDC. DNA fingerprinting is performed on *E. coli* bacteria isolated from ill people by using a standardized laboratory and data analysis method called [whole genome sequencing](#) (WGS). CDC PulseNet manages a national database of these sequences that are used to identify possible outbreaks. WGS gives investigators detailed information about the bacteria causing illness. In this investigation, WGS showed that bacteria isolated from ill people were closely related genetically. This means that people in this outbreak were more likely to share a common source of infection.

As of December 16, 2020, a total of 18 people infected with the outbreak strain of *E. coli* O157:H7 were reported from nine states.

Illnesses started on dates ranging from [September 2, 2020, to November 6, 2020](#). Ill people ranged in age from 8 to 71 years, with a median age of 28 years, and 72% were female. Of 16 ill people with information available, 6 were hospitalized. No deaths were reported.

WGS analysis of 15 isolates from ill people and 4 isolates from food did not predict resistance to any antibiotics. [Standard antibiotic resistance testing](#) by [CDC's National Antimicrobial Resistance Monitoring System](#) (NARMS) laboratory is currently underway. These findings do not affect treatment guidance since antibiotics are not recommended for patients with *E. coli* O157:H7 infections.

Investigation of the Outbreak

State and local public health officials interviewed ill people to determine what they ate and other exposures in the week before they got sick. Of the 13 people interviewed, all reported eating or maybe eating various types of leafy greens, including romaine lettuce (9), spinach (9), and iceberg lettuce (7).

Laboratory testing identified the outbreak strain in a sample of Tanimura & Antle romaine lettuce in a single-head package, which was recalled on November 6, 2020. However, investigators were unable to determine if any ill people in this outbreak got sick from eating the recalled product. No one specifically reported eating Tanimura & Antle romaine lettuce, and some people got sick before the “packed on” dates for the recalled products.

FDA conducted traceback investigations and worked with state partners to conduct inspections at several farms. However, none of the findings identified a common source in the distribution chain or linked the farms to the outbreak.

As of December 18, 2020, this outbreak is over. This outbreak ended before enough information was available for investigators to identify the likely source.