

Outbreak of *E. coli* Infections

[Español \(Spanish\)](#)

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Investigation Notice

Posted April 12, 2019 at 3:15 PM ET

CDC, several states, and the U.S. Department of Agriculture's Food Safety and Inspection Service are investigating a multistate outbreak of Shiga toxin-producing *Escherichia coli* O103 infections. Preliminary information suggests that ground beef is the source of this outbreak. This investigation is ongoing.

Latest Outbreak Information

At A Glance

- [Reported Cases](#): 109
- [States](#): 6
- Hospitalizations: 17
- Deaths: 0

A total of 109 people infected with the outbreak strain of *E. coli* O103 have been reported from six states.

- Seventeen people have been hospitalized. No cases of hemolytic uremic syndrome, a type of kidney failure, have been reported. No deaths have been reported.
- Preliminary [epidemiologic information](#) suggests that ground beef is the source of this outbreak.
 - Ill people in this outbreak report eating ground beef at home and in restaurants.
 - Traceback investigations are ongoing to determine the source of ground beef supplied to grocery stores and restaurant locations where ill people ate.
- At this time, no common supplier, distributor, or brand of ground beef has been identified.

- CDC is not recommending that consumers avoid eating ground beef at this time. Consumers and restaurants should handle ground beef safely and cook it thoroughly to avoid foodborne illness.
- At this time, CDC is not recommending that retailers stop serving or selling ground beef.
- This is a rapidly evolving investigation. We will provide updates as more information becomes available.

Advice to Consumers, Restaurants, and Retailers

Consumers and restaurants should always [handle and cook ground beef safely](#) to avoid foodborne illness. Thoroughly cook ground beef and any food that contains ground beef to kill germs.

Wash hands with soap and water after touching raw ground beef. Use hot, soapy water or a [bleach solution](#) to wash kitchen items that touched raw meat.

- **Handling ground beef:**
 - Keep raw meat separate from foods that won't be cooked before eating.
 - Wash hands with soap and water after touching raw meat and before touching other kitchen items.
 - Thoroughly wash countertops, cutting boards, plates, and utensils with hot, soapy water or a [bleach solution](#) after they touch raw meat to avoid contaminating other foods and items in your kitchen.
- **Cooking ground beef:**
 - Don't eat raw or undercooked ground beef.
 - Cook ground beef hamburgers and mixtures such as meatloaf to 160°F internal temperature. Use a [food thermometer](#) to make sure the meat has reached a safe internal temperature. You can't tell whether meat is safely cooked by looking at it.
 - For [hamburgers](#), insert thermometer through the side of the patty until it reaches the middle.
 - Place the thermometer in the thickest part of the meat for foods like meatloaf.
 - For casseroles and for sauces that contain ground beef, such as spaghetti sauce or sloppy joe, check the temperature in several places.
 - After cooking ground beef, refrigerate within 2 hours and use within 3 to 4 days.
 - When ordering at a restaurant, ask that ground beef hamburgers and mixtures be cooked to an internal temperature of at least 160°F.
- **Storing ground beef:**
 - Refrigerate or freeze raw ground beef within two hours after purchase.
 - If you refrigerate raw ground beef, use within 1 or 2 days.
 - Store ground beef in a plastic bag on the lowest shelf of your refrigerator.
 - If you break large packages of ground beef into smaller packages for freezing, wash hands with soap and water after touching the meat or its packaging, and before touching other surfaces.
 - Use hot, soapy water to clean the area where you divided the ground beef, including kitchen counters and utensils.

- Label your packages with the date they were placed in the freezer and where you purchased the ground beef.
- **Thawing ground beef:**
 - The best way to safely thaw ground beef is in the refrigerator. Cook or refreeze within 1 or 2 days.

For more information about how to handle ground beef safely, call the [USDA Meat and Poultry HotlineExternal](#) at 1-888-MPHotline (1-888-674-6854).

[Take action](#) if you have [symptoms of an *E. coli* infection](#):

- Talk to your healthcare provider.
- Write down what you ate in the week before you started to get sick.
- Report your illness to the health department.
- Assist public health investigators by answering questions about your illness.

Symptoms of *E. coli* Infection



- People usually get sick from Shiga toxin-producing *E. coli* (STEC) 3–4 days after swallowing the germ.
- Symptoms often include severe stomach cramps, diarrhea (often bloody), and vomiting, and usually lasts 5-7 days.
- Some people with a STEC infection may get a type of kidney failure called hemolytic uremic syndrome.
- For more information, see [Symptoms of *E. coli* Infection](#).

Advice to Clinicians

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

April 12, 2019

Since the last update on April 9, 2019, 13 more ill people were added to this outbreak.

As of April 12, 2019, 109 people infected with the outbreak strain of *E. coli* O103 have been reported from six states. CDC is reporting the 109 illnesses that the [PulseNet](#) laboratory network has confirmed are part of this outbreak. States are investigating additional illnesses that might be a part of this outbreak. A list of the states and the number of confirmed cases in each can be found on the [Map of Reported Cases page](#).

Illnesses started on dates from [March 2, 2019, to March 26, 2019](#). Ill people range in age from less than 1 year to 83 years, with a median age of 18. Fifty-three percent are female. Of 81 people with information available, 17 (21%) have been hospitalized. No deaths and no cases of hemolytic uremic syndrome have been reported.

Illnesses that occurred after March 20, 2019, might not yet be reported due to the time it takes between when a person becomes ill with *E. coli* and when the illness is reported. This takes an average of [two to three weeks](#).

Investigation of the Outbreak

This multistate investigation began on March 28, 2019, when officials in Kentucky and Georgia notified CDC of this outbreak. Preliminary [epidemiologic information](#) suggests that ground beef is the source of this outbreak.

In interviews, ill people answered [questions about the foods they ate and other exposures](#) in the week before they became ill. Sixty-three (84%) of 75 people interviewed reported eating ground beef. This percentage is significantly higher than results from a [survey Cdc-pdf\[PDF – 787 KB\]](#) of healthy people. Ill people bought or ate ground beef from several different grocery stores and restaurants. Many ill people bought large trays or chubs of ground beef from grocery stores and used the meat to make dishes like spaghetti sauce and sloppy joe.

Traceback investigations are ongoing to determine the source of ground beef supplied to grocery stores and restaurants where ill people ate. At this time, no common supplier, distributor, or brand of ground beef has been identified. Consumers should follow steps to handle ground beef safely and cook it thoroughly.

CDC will provide more information as it becomes available.