

Salmonella Outbreak Linked to Onions



Food Safety Alert

Posted February 2, 2022

This outbreak is over. Stay up to date on food recalls and outbreaks to avoid getting sick from eating contaminated food.

Fast Facts

- Illnesses: 1,040
- Hospitalizations: 260
- Deaths: 0
- [States](#): 39, District of Columbia, and Puerto Rico
- Recall: Yes
- Investigation status: Closed

Recalled Food

Whole raw red, white, and yellow onions imported from the State of Chihuahua, Mexico

- Multiple companies recalled onions. Recalled onions were supplied by ProSource Produce LLC and Keeler Family Farms and imported from the State of Chihuahua, Mexico, between July 1, 2021, and August 31, 2021.
- See recall notice for information about each company's recall.

What You Should Do

Recalled onions and products should no longer be available in grocery stores. However, onions have a long shelf-life and may still be in homes or freezers. If you have recalled onions, do not eat them. Throw them away or return them to where you bought them. Wash items and surfaces that may have touched the recalled product using hot soapy water or a dishwasher.

Always follow these four food safety steps to prevent getting sick from *Salmonella*:

- **Clean:** Wash your hands, utensils, and surfaces often.
- **Separate:** Keep food that won't be cooked separate from raw meat, poultry, and seafood.
- **Cook:** Use a food thermometer to make sure you have cooked your food to a temperature high enough to kill germs.
- **Chill:** Refrigerate perishable food (food that goes bad) within 2 hours. If the food is exposed to temperatures above 90°F (like a hot car or picnic), refrigerate it within 1 hour. Thaw food in the refrigerator, not on the counter.

Investigation Details

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CDC, FDA, and public health and regulatory officials in several states collected different types of data to investigate a multistate outbreak of *Salmonella* Oranienburg infections linked to onions.

Epidemiologic and traceback data showed that this outbreak of *Salmonella* Oranienburg infections was linked to whole, fresh onions imported from the State of Chihuahua, Mexico.

As of February 2, 2022, this outbreak is over.

Epidemiologic Data

As of January 20, 2022, a total of 1,040 people infected with the outbreak strain of *Salmonella* Oranienburg were reported from 39 states, the District of Columbia, and Puerto Rico. Illnesses started on dates ranging from May 31, 2021, to January 1, 2022.

Sick people ranged in age from less than 1 year to 101 years, with a median age of 38, and 58% were female. Of 778 people with information available, 260 (33%) were hospitalized. No deaths were reported.

The true number of sick people in an outbreak is likely much higher than the number reported, and the outbreak may not be limited to the states with known illnesses. This is because many people recover without medical care and are not tested for *Salmonella*. In addition, recent illnesses may not yet be reported as it usually takes 3 to 4 weeks to determine if a sick person is part of an outbreak.

State and local public health officials interviewed people about the foods they ate in the week before they got sick. Of 407 people with information,

294 (72%) reported eating or maybe eating raw onions or dishes likely containing raw onion before they became sick.

Laboratory Data

Public health investigators used the PulseNet system to identify illnesses that were part of this outbreak. CDC PulseNet manages a national database of DNA fingerprints of bacteria that cause foodborne illnesses. DNA fingerprinting is performed on bacteria using a method called whole genome sequencing (WGS).

Whole genome sequencing of bacteria from 1,012 people's samples did not predict any antibiotic resistance. Nine people's samples were predicted to be resistant to one or more of the following antibiotics: amoxicillin-clavulanic acid, ampicillin, cefoxitin, ceftriaxone, ciprofloxacin, gentamicin, streptomycin, sulfamethoxazole, and tetracycline. Standard antibiotic susceptibility testing of five people's samples by CDC's National Antimicrobial Resistance Monitoring System (NARMS) laboratory found no resistance. Most people with *Salmonella* illness recover without antibiotics. However, if antibiotics are needed, this resistance is unlikely to affect the choice of antibiotic used to treat most people because it is rare.

Public Health Actions

On October 20, 2021, ProSource Produce LLC issued a recall. On October 22, 2021, Keeler Family Farms also issued a recall. Recalls were also issued by multiple companies that used the onions as ingredients in new products or repackaged them.