

Listeria Outbreak Linked to Packaged Salads Produced by Dole



Food Safety Alert

Posted April 4, 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: 18
- Hospitalizations: 16
- Deaths: 3
- [States](#): 13
- Recall: Yes
- Investigation status: Closed

What You Should Do

Prevent *Listeria*

- Find out if you are at [higher risk](#) for getting sick with *Listeria*.
- Learn which foods are more likely to contain *Listeria*, and take steps to [prevent getting sick](#).
- Stay up to date on food [recalls](#) and [outbreaks](#) to avoid getting sick from eating contaminated food.

Prepare Leafy Greens Safely

Vegetables, including leafy greens, are an important part of a healthy and balanced diet. However, they can sometimes be contaminated with harmful germs.

The safest produce is cooked; the next safest is washed. However, no washing method can remove all germs.

When eating raw leafy greens:

- **Wash** your hands, utensils, and surfaces before and after preparing leafy greens.
- **Clean** leafy greens before eating or cutting them.
 - Discard outer leaves on whole heads of lettuce and any torn or bruised leaves.
 - Rinse under running water and use your hands to gently rub the surface of the leaves.
 - Dry with a clean cloth or paper towel.
 - If the label on a leafy greens package says “ready to eat,” “triple washed,” or “no washing necessary,” you don’t need to wash the greens.
- **Separate** leafy greens from raw meat, poultry, and seafood.
- **Refrigerate** leafy greens within 2 hours. Refrigerate within 1 hour if they have been exposed to temperatures above 90°F (such as a hot car or picnic).

Investigation Details

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CDC, public health and regulatory officials in several states, and the U.S. Food and Drug Administration (FDA) investigated a multistate outbreak of *Listeria monocytogenes* infections.

CDC investigated this outbreak in 2019 and 2020 but was unable to gather enough data to identify the source in the past. CDC reopened the investigation in November 2021 when four new illnesses were reported since the end of August 2021.

During the most recent investigation, epidemiologic, laboratory, and traceback data showed that packaged salads produced by Dole made people sick.

As of April 4, 2022, this outbreak is over.

Epidemiologic Data

A total of 18 people infected with the outbreak strain of *Listeria monocytogenes* were reported from 13 states. The true number of sick people in an outbreak is likely higher than the number reported, and the outbreak may not have been limited to the states with known illnesses. This is because some people recover without medical care and are not tested for *Listeria*.

Illnesses started on dates ranging from August 16, 2014, to January 15, 2022. Sick people ranged in age from 50 to 94 years, with a median age of 76, and 83% were female. Of 16 people with information available, all were hospitalized. Three deaths were reported, one each from Michigan, Ohio, and Wisconsin.

State and local public health officials interviewed people (or their family) about the foods they ate in the month before they got sick. Of the 10 people interviewed, 9 (90%) reported eating packaged salads. Of the three people who remembered a specific brand, two reported Dole and one reported Little Salad Bar.

Laboratory and Traceback 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 \(WGS\)](#).

WGS showed that bacteria from sick people's samples were closely related genetically. This suggests that people in this outbreak got sick from the same food.

In October 2021, before the most recent CDC investigation began, the Georgia Department of Agriculture identified *Listeria* in a Dole brand garden salad as part of a routine sampling program of food at grocery stores. WGS later showed that the *Listeria* in the garden salad was the outbreak strain. The garden salad was produced at Dole's Bessemer City, North Carolina, facility.

After CDC reopened this outbreak investigation, the Michigan Department of Agriculture and Rural Development collected samples of packaged salads from retail stores for testing and identified the outbreak strain of *Listeria* in a Marketside brand package of shredded iceberg lettuce. The shredded iceberg lettuce was produced at Dole's Yuma, Arizona, facility.

Dole conducted a root cause analysis and collected samples from their facilities and equipment for testing. Dole found *Listeria* on equipment used to harvest iceberg lettuce. FDA conducted WGS and found that the *Listeria* on the equipment was the outbreak strain.

Dole's continued investigation found the outbreak strain on a piece of equipment in their Yuma facility and in packaged salads on hold that were included in the initial recall.

Public Health Actions

On December 22, 2021, Dole recalled all Dole-branded and private label packaged salads processed at their Bessemer City, North Carolina, and Yuma, Arizona, facilities.

On January 7, 2022, Dole recalled additional products containing iceberg lettuce harvested by the contaminated harvesting equipment.