

Listeria Outbreak Linked to Leafy Greens



Investigation Notice

Posted June 13, 2023

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

Fast Facts

- Illnesses: 19
- Hospitalizations: 18
- Deaths: 0
- [States](#): 16
- Recall: No
- Investigation status: Closed

Outbreak Investigation Summary

This outbreak is over.

When this investigation began, there was not enough information to identify the source of the outbreak.

State and local health officials collected as much information as they could by asking people or their caregivers about foods they ate before getting sick.

Epidemiologic [data](#) showed that leafy greens were a likely source of this outbreak, but there was not enough other data to identify a specific type or producer of leafy greens.

- Of 14 people who answered questions about leafy greens, 13 (93%) people ate leafy greens.
- Analysis showed that people in this outbreak were 8 times more likely to eat iceberg lettuce and 5 times more likely to eat romaine lettuce before getting sick compared to people who got sick with *Listeria* but were not part of an outbreak.
- People bought leafy greens and different brands of packaged salads from several stores.

What You Should Do

Stay healthy and 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.
- **Keep leafy greens separate** 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 (like 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.

Epidemiologic data showed that leafy greens were a likely source of the outbreak. However, there was not enough [other data](#) to identify a specific type or producer of leafy greens.

As of June 13, 2023, this outbreak is over.

Epidemiologic Data

As of June 13, 2023, a total of 19 people infected with the outbreak strain of *Listeria* were reported from 16 states. Sick people's samples were collected from July 3, 2018, to March 31, 2023.

The true number of sick people in this outbreak is likely higher than the number reported, and the outbreak may not be limited to the states with known illnesses. This is because some people recover without medical care and are not tested for *Listeria*.

Public health officials collected many different types of information from sick people, including their age, race, ethnicity, other demographics, and the foods they ate in the month before they got sick. This information provided clues to help investigators identify the source of the outbreak.

Sick people ranged in age from less than 1 to 96 years, with a median age of 72, and 63% were female. Among 19 people with race information available, 17 people were White, 1 was African American/Black, and 1 reported "Other" race. Among 19 people with ethnicity information available, two people were Hispanic. Eighteen people were hospitalized, and no deaths were reported.

State and local public health officials interviewed people about the foods they ate in the month before they got sick. Of 14 people who answered questions about leafy greens, 13 (93%) people ate leafy greens, 13 (93%) ate iceberg lettuce, and 10 (71%) ate romaine lettuce. Twelve (86%) people ate packaged salads.

CDC conducted a [case-case analysis](#), comparing foods that sick people in this outbreak reported eating to foods that people sick with *Listeria* reported eating who were not part of an outbreak. The analysis showed that people in this outbreak were 8 times more likely to eat iceberg lettuce ($p=0.035$), 5 times more likely to eat romaine lettuce ($p=0.038$), and 4 times more likely to eat packaged salads ($p=0.049$) than sick people not in this outbreak. This suggests that leafy greens were a likely source of this outbreak.

Three people ate leafy greens at the long-term care facilities they lived in, and one person ate leafy greens at a hospital they worked in. People bought leafy greens and different brands of packaged salads from several stores.

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 \(WGS\)](#).

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.