

Multistate Outbreak of *Salmonella* Montevideo Infections Linked to Raw Sprouts (Final Update)

Language:

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This outbreak appears to be over. Regardless of where they are served or sold, raw and lightly cooked sprouts are a known source of foodborne illness. CDC recommends that consumers, restaurants, and other retailers always follow [food safety practices](#) to avoid illness from eating sprouts.

Highlights

- [Read the Advice to Consumers, Restaurants, and Retailers>>](#)
- CDC, public health and regulatory officials in several states, and the U.S. Food and Drug Administration investigated a multistate outbreak of *Salmonella* Montevideo infections.
- Ten people infected with the outbreak strain of *Salmonella* Montevideo were reported from three states.
 - No hospitalizations and no deaths were reported.
- [Epidemiologic evidence](#) indicated that raw sprouts were the likely source of this multistate outbreak.
 - Ill people in this outbreak reported eating raw sprouts on sandwiches served at Jimmy John's restaurants in Illinois and Wisconsin.
 - One ill person in this outbreak reported eating raw sprouts purchased from a grocery store in Minnesota.
- This outbreak appears to be over. Any contaminated sprouts that made people sick in this outbreak would now be older than their recommended shelf life. FDA and state, and local regulatory officials conducted traceback investigations to help determine the source of the sprouts and their distribution chain. To date, no contamination source has been identified.
- Raw and lightly cooked sprouts are a known source of foodborne illness. CDC recommends that consumers, restaurants, and other retailers always follow [food safety practices](#) to avoid illness from eating sprouts.

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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 *Salmonella* Montevideo infections. Public health investigators used the [PulseNet](#) system to identify illnesses that may be part of this outbreak. PulseNet is the national subtyping network of public health and food regulatory agency laboratories coordinated by CDC. DNA fingerprinting was performed on *Salmonella* bacteria isolated from ill people by using techniques called [pulsed-field gel electrophoresis](#) (PFGE) and [whole genome sequencing](#) (WGS). CDC PulseNet manages a national database of these DNA fingerprints to identify possible outbreaks. WGS gives a more detailed DNA fingerprint than PFGE.

As of February 27, 2018, 10 people infected with the outbreak strain of *Salmonella* Montevideo were reported from 3 states. A list of the states and the number of cases in each can be found on the [Case Count Map page](#). WGS showed that isolates from ill people were closely related genetically. This means that people in this outbreak were more likely to share a common source of infection.

Illnesses started on dates ranging from December 20, 2017 to January 28, 2018. Ill people ranged in age from 26 to 56, with a median age of 42. All 10 (100%) were female. No hospitalizations and no deaths were reported.

This outbreak can be illustrated with a chart showing the number of people who became ill each day. This chart is called an [epidemic curve](#), or epi curve.

Testing of outbreak isolates using [standard antibiotic susceptibility testing methods](#) by CDC's [National Antimicrobial Resistance Monitoring System](#) (NARMS) laboratory revealed one isolate with no antibiotic resistance and one isolate with resistance to streptomycin, an antibiotic which is not commonly used to treat patients with *Salmonella* infections.

Investigation of the Outbreak

[Epidemiologic evidence](#) indicated that raw sprouts were the likely source of this multistate outbreak.

In interviews, ill people answered questions about the foods they ate and other exposures in the week before they became ill. Eight (80%) of ten people interviewed reported eating at multiple Jimmy John's restaurant locations. Of these eight people, all eight (100%) reported eating raw sprouts on a sandwich from Jimmy John's in Illinois and Wisconsin. This proportion is significantly higher than results from a [survey\[PDF – 29 pages\]](#) of healthy people, in which 3% reported eating sprouts on a sandwich in the week before they were interviewed. Two ill people in Wisconsin ate at a

single Jimmy John's location in that state. One ill person reported eating raw sprouts purchased from a grocery store in Minnesota.

This outbreak appears to be over. Any contaminated sprouts that made people sick in this outbreak would now be older than their recommended shelf life. FDA and state, and local regulatory officials conducted traceback investigations to help determine the source of the sprouts and their distribution chain. To date, no contamination source has been identified.

Regardless of where they are served or sold, raw and lightly cooked sprouts are a known source of [foodborne illness](#) and outbreaks. People who choose to eat sprouts should cook them thoroughly to reduce the risk of illness.