

Salmonella Outbreak Linked to Raw Cookie Dough



Food Safety Alert

Posted July 13, 2023

This outbreak is over. But any raw cookie dough made with unpasteurized eggs or raw flour can have germs like *Salmonella* and *E. coli*. Always follow cookie dough baking instructions in the recipe or on the package label.

Fast Facts

- Illnesses: 26
- Hospitalizations: 4
- Deaths: 0
- [States](#): 6
- Recall: No
- Investigation status: Closed

Outbreak Investigation Summary

[Data](#) showed that Papa Murphy's raw cookie dough made people in this outbreak sick.

- Fifteen sick people reported eating raw cookie dough from Papa Murphy's Take 'N' Bake Pizza in the week before they got sick.
- On May 23, Papa Murphy's temporarily stopped selling their raw chocolate chip cookie dough and raw S'mores bars dough in response to this outbreak.

What You Should Do

Always follow cookie dough baking instructions in the recipe or on the package label.

- Most raw cookie dough, including Papa Murphy's raw cookie dough, is not meant to be eaten raw. Most raw cookie dough is made with

unpasteurized eggs or raw flour and can have germs like *Salmonella* and *E. coli*.

- Some other companies make edible cookie dough that does not have to be baked. These products are made with heat-treated flour and made without eggs or with pasteurized eggs. Read the label carefully to make sure the dough is meant to be eaten without baking or cooking.

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 *Salmonella* Enteritidis infections.

Epidemiologic and traceback data showed that Papa Murphy's raw cookie dough made people sick.

As of July 13, this outbreak is over.

Epidemiologic and Traceback Data

A total of 26 people infected with the outbreak strain of *Salmonella* were reported from 6 states (see [map](#)). Illnesses started on dates ranging from February 24, 2023, to May 28, 2023 (see [timeline](#)). Of 23 people with information available, 4 were hospitalized. No deaths were reported.

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

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 week before they got sick. This information provided clues to help investigators identify the source of the outbreak.

The table below has information about sick people in this outbreak (“n” is the number of people with information available for each demographic).

Table of demographic information (n is the number of people with information available)

Demographics	Information
Age (n=26)	Range from 14 to 81 years Median age of 48 years
Sex (n=26)	81% female 19% male
Race (n=23)	100% White
Ethnicity (n=20)	100% non-Hispanic

State and local public health officials interviewed people about the foods they ate in the week before they got sick. Of the 22 people interviewed, 17 reported eating food from Papa Murphy’s. Fifteen people ate Papa Murphy’s raw chocolate chip cookie dough or raw S’mores bars dough, and one person ate baked cookies made with Papa Murphy’s chocolate chip cookie dough.

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 are closely related genetically. This suggests that people in this outbreak got sick from the same food.

[WGS analysis](#) of bacteria from 26 people’s samples did not predict resistance to any antibiotics. Standard [antibiotic susceptibility testing](#) of one person’s sample by CDC’s [National Antimicrobial Resistance Monitoring System \(NARMS\)](#) laboratory also showed no resistance.

Public Health Actions

On May 23, Papa Murphy's temporarily stopped selling their raw chocolate chip cookie dough and raw S'mores bars dough in response to this outbreak. As of July 13, Papa Murphy's has not restarted sales of cookie dough and is reviewing their dessert labels to make it clear to customers that their products are not intended to be eaten raw.

CDC always advises people not to eat raw cookie dough, unless it has a label indicating that it is safe to be eaten raw.