

Foods Linked to the Most Serious Food Recalls and Outbreaks, 2017-2022

The purpose of this analysis was to identify the foods associated with the most serious food recalls and outbreaks of foodborne illnesses from January 2017 through December 2022.

For this analysis, we used a tool developed by Consumer Reports using coding to extract data from websites maintained by federal food safety regulatory agencies, including the Centers for Disease Control and Prevention, the Food and Drug Administration, and the Department of Agriculture's Food Safety and Inspection Service.

Each of those agencies collects and reports food safety data in different ways. So the data tool extracted the information and formatted it into a common structure. Once the data was structured, it was analyzed and visualized to identify insights and conclusions, and to answer specific questions.

We then used that data to tally the total number of recalls and outbreaks associated with each food, and to group the foods into risk categories. For example, we grouped foods that are typically consumed unheated, such as fruits and vegetables as well as deli meats and cheeses, and then those that are grown in soil.

The analysis focused on risks caused by microbial contamination, including pathogens such as Shiga toxin-producing *Escherichia coli*, *Listeria monocytogenes*, salmonella, and campylobacter. (We did not include food hazards such as allergens and extraneous materials in foods.)

Data from the FDA came mainly from the agency's [Reportable Food Registry](#), with reportable foods defined as those with a "reasonable probability that the use of, or exposure to, an article of food will cause serious adverse health consequences or death to humans or animals." This definition excludes infant formula and dietary supplements.

To rank the risk posed by the foods in our analysis, we considered three types of data, including:

- The number of recalls and/or outbreaks for the particular food item in the six-year period years. Most of this data came from the CDC, FDA, and FSIS websites.
- The number of illnesses and deaths associated with specific foodborne disease outbreaks, as well as the number of states where the illnesses occurred. Much of this data came from the [CDC List of Multistate Foodborne Outbreak Notices](#).
- The amount of food affected by specific recalls and

outbreaks. For foods regulated by the FSIS, this data came from the agency's [Annual Recall Summaries](#) page. The data on the FSIS page is listed in total pounds recalled. For products regulated by the FDA, the data was provided directly from the agency and covered the quantities of food associated with roughly 20 outbreaks from the six-year period. That data was sometimes expressed not in pounds but in other units, such as cases recalled. When possible, we used the information supplied to estimate the pounds of food involved in a recall.

Readers of this report should be aware of several caveats.

First, this analysis represents a snapshot in time, and risks may continue to evolve, along with food production trends, environmental changes, and other factors.

In addition, some foods that carry an inherent high level of risk were not included in this analysis, for various reasons. For example, raw milk products were omitted because, while they are known to often be contaminated with bacteria, relatively few people drink it. And sprouts, which were linked to 50 outbreaks between 1996 and 2018, were not included because many large food retailers, including Costco, Kroger, and Walmart, have [stopped](#) carrying sprouts, and because a 2019 FDA [draft guidance](#) for reducing food safety hazards in sprouts may have also reduced the number of recalls and outbreaks associated with the products.

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