

Report to the Boards of Health
Jennifer Morse, MD, MPH, FAAFP, Medical Director



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Foodborne Illnesses

Introduction

Foodborne illness, often called food poisoning, is any illness caused by eating or drinking something contaminated with harmful germs or toxins. The CDC estimates foodborne illnesses sicken about 48 million Americans (roughly 1 in 6) every year, hospitalizing 128,000, and killing 3,000. CDC's FoodNet surveillance network found that illnesses from STEC (*E. coli*), *Yersinia*, *Vibrio*, *Salmonella*, *Shigella*, *Campylobacter*, and *Cyclospora* have been increasing over the past 5 years. This summer, a multistate outbreak of cyclosporiasis, traced to iceberg lettuce, has grown to the largest cyclosporiasis outbreak on record in the United States, and one that has hit our state especially hard. The good news is that most foodborne illnesses are preventable with four steps: Clean, Separate, Cook, Chill.

Keeping food safe is complex. Food can get contaminated while it's grown, harvested, processed, shipped, stored, or prepared in a kitchen and there may be many different stages or places each of these steps is handed. There are different federal, state, and local agencies in the United States involved in food safety. Local health departments are typically responsible for follow-up of foodborne illness and outbreak investigation. They are also responsible for foodborne illness prevention activities, inspections of food processing and food service establishments, and food safety education.

What Foodborne Illness Is

The main causes of foodborne illness fall into four categories:

- **Bacteria** —germs such as *Salmonella*, *E. coli*, *Campylobacter*, and *Listeria*. Some bacteria infect the gut directly; others make toxins in the food that cause illness, for example, *Staphylococcus aureus*, *Clostridium botulinum*, and *Bacillus cereus*.
- **Viruses** — such as norovirus and hepatitis A. Viruses don't grow in food, but they're carried on it, often from an infected person's unwashed hands.
- **Parasites** — such as *Cyclospora* and *Cryptosporidium*. Like viruses, parasites don't multiply in food but can be carried on it.
- **Toxins and chemicals** — including natural toxins, metals, and bacterial toxins.

Common Foodborne Illnesses
Top 5 foodborne germs causing...
Illnesses
Norovirus , Campylobacter , Salmonella (non-typhoidal), Clostridium perfringens , and Shiga toxin-producing Escherichia coli (STEC).
Hospitalizations
Norovirus, <i>Salmonella</i> (non-typhoidal), <i>Campylobacter</i> , STEC, and Listeria monocytogenes .
Deaths
<i>Salmonella</i> (non-typhoidal), <i>Campylobacter</i> , norovirus, <i>Listeria monocytogenes</i> and STEC.

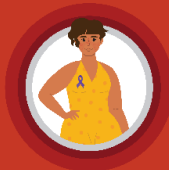
Factors that increase risk for FOOD POISONING



Aged 65 and
older



Younger than
5 years



Weakened Immune
System



Pregnancy

Choose and prepare food carefully to help prevent food poisoning.



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

www.cdc.gov/foodsafety

CS 32028-A

Norovirus is the leading cause of foodborne illness in the US and the most common cause of foodborne outbreaks. It is very infectious, spreading easily, and causes vomiting, diarrhea, nausea, and belly pain usually within 12 to 48 hours of being exposed. Most times it gets better on its own within 1–3 days but it can lead to hospitalization and death.

Campylobacter is the most common bacterial cause of diarrhea in the US, and many infections are likely not diagnosed or reported. *Campylobacter* lives in the digestive tract of many animals that don't get sick from the bacteria, such as chicken, puppies, and cows. Main sources of infection are raw or undercooked poultry, seafood, meat, and unpasteurized milk, along with untreated water and contact with infected animals. Symptoms include diarrhea that is often bloody, fever, nausea, vomiting, and cramps starting 2–5 days after exposure and lasting about a week. Rare complications include temporary paralysis (Guillain-Barré syndrome) and reactive arthritis.

Salmonella causes more foodborne illness hospitalizations and deaths than any other bacterium. *Salmonella* is very common in the intestines of animals, birds, and reptiles and may exist in the environment. *Salmonella* usually causes watery diarrhea that might be bloody, stomach cramps, and some people have headache, nausea, vomiting, and a loss of appetite. The illness usually starts 6 hours to 6 days after infection and usually lasts 4 to 7 days. Sometimes the diarrhea lasts a long time, or the infection spreads to other parts of the body.

Clostridium perfringens is a common cause of foodborne illness and is likely underreported because illness is mild and testing often isn't done. This bacterium makes spores with a protective coating that can survive normal cooking temperatures and if the food isn't stored at a safe temperature (under 40° F or over 140° F), the germ can multiply. Once it is eaten, the bacteria makes a toxin that causes watery diarrhea and belly cramps and sometimes, vomiting and fever occur. Illness usually happens within 6 to 24 hours after eating contaminated food and usually lasts about 1 day.

Escherichia coli are found in many places and most kinds are harmless. There are some kinds that can cause illness. One type is called **Shiga toxin-producing *Escherichia coli* (referred to as STEC)**, because it has genes that cause it to make a harmful toxin. Main sources are undercooked ground beef, raw (unpasteurized) milk, and leafy greens contaminated with animal feces, along with contaminated water and contact with farm animals. Illness causes severe stomach cramps, bloody diarrhea, and vomiting. Most people recover in about a week, but some, especially young children and older adults, develop a life-threatening kidney complication known as hemolytic uremic syndrome (HUS).

Listeria monocytogenes (listeriosis) is less common but among the deadliest foodborne illnesses. Unlike many other germs, it can grow at refrigerator temperatures. It is usually found in raw (unpasteurized) or contaminated milk, soft cheese, and other dairy products or in contaminated processed/deli meats, hot dogs, smoked seafood, and sometimes produce like cantaloupe and peaches. More recently, it has been found in other ready-to-eat foods such as hummus, sunflower seeds, and frozen vegetables. Infection may cause fever, watery diarrhea, nausea, vomiting, headache, and pains in joints and muscles for a couple of days. More serious illness may occur one to three weeks later if the bacteria invade the bloodstream and is more common in pregnant women, older adults, and people with a weak immune system. Pregnant women may have only mild

Cyclosporiasis is an illness caused by the microscopic parasite *Cyclospora cayetanensis*. Humans are the only known host of *Cyclospora*, so pets or livestock don't carry or spread it. People become infected by eating food or drinking water contaminated with sporulated oocysts of *Cyclospora*. Sporulated oocysts are mature, infectious, thick-walled spore stage of *Cyclospora*. Once the sporulated oocyst enters the human digestive tract, it passes through its lifecycle, and an *unsporulated* oocyst exits the body in the stool (poop). The unsporulated oocyst is not infectious, and it needs 1 to 2 weeks outside the human host in the proper environment before sporulating and becoming infectious. This means a person who is sick with cyclosporiasis cannot pass it directly to someone else.

Outbreaks of *Cyclospora* have historically been linked to fresh produce such as bagged salad mixes, cilantro, basil, raspberries, snow peas, and green onions. A large multistate outbreak this summer was traced to iceberg lettuce from Taylor Farms de Mexico, sold to many food services and different retail salad mixes. Taylor Farms recalled all iceberg lettuce sourced from central Mexico on July 17, 2026. By CDC's This has become the largest cyclosporiasis outbreak on record in the United States. Michigan was the epicenter, possibly due to effective case finding and counting. As of August 13, 2026, the CDC reported over 9,400 cases in 17 states while Michigan was reporting over 14,000 cases.

Why Foodborne Illnesses Are Increasing

- **Globalized food supply and more fresh, imported produce.** Food now travels across borders, so contamination in one place can sicken people in many states or countries.

An additional 14 states allow treated sewage water to be used to irrigate crops, but only those not used for food. And the remaining 15 states are split among those that have guidelines – which are not as strict as regulations – or no policies at all about using treated sewage for irrigation.

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Map: The Conversation, CC-BY-ND • Source: Thilmany et al., 2024 • Created with Datawrapper

- **Climate change.** Climate change is already increasing the risks of foodborne illnesses around the world. Extreme heat and heavy rain leading to flooding are the biggest risk. Warming coastal waters are also expanding the range of *Vibrio*, a germ that causes seafood linked illnesses.
- **Changing agriculture.** Intensive animal production leading to manure run-off, the use of improperly composted manure, irrigation water containing untreated sewage, or contaminated wash water can spread germs to crops.
- **Growing number of people at high risk for foodborne illnesses.** As people age, especially past 65, they are at a higher risk for illness from foodborne germs. The US population has an increasing number of elderly people. There are also increasing numbers of people with depressed immunity due to chronic illnesses and newer medical treatments.

Prevention Tips

The four steps to food safety, recommended by CDC, USDA, and FDA, prevent the great majority of foodborne illness: [clean](#), [separate](#), [cook](#) and, [chill](#).

1. [Clean](#)—Keep your hands and cooking surfaces clean to keep bacteria away from your food.
2. [Separate](#)—Keep higher-risk foods like raw meat, seafood, and eggs apart from others to avoid cross-contamination.
3. [Cook](#)—Make sure all food is cooked to hot enough temperatures to kill harmful bacteria.
4. [Chill](#)—Store food safely at temperatures cold enough to prevent bacteria from growing.

Fresh produce deserves special care, especially during increases in cyclosporiasis:

CHECK fresh produce for signs of cuts or bruising, where harmful bacteria can breed  • Check that the fresh fruits and vegetables you buy are not bruised or damaged. • When choosing pre-cut fruits and vegetables like packaged salads and sliced melons, check that the product is refrigerated or on ice.	CLEAN hands, surfaces and utensils to prevent contamination  • Wash hands with warm water and soap for at least 20 seconds before and after handling fresh fruits and vegetables. • Clean all surfaces and utensils with hot water and soap, including cutting boards and knives, before and after preparing fresh fruits and vegetables.
RINSE fresh fruits and veggies just before eating  • Just before use, rinse under running water only the fruits and vegetables you plan to eat, including those with skins or rinds that are not eaten. • Firm-skinned fruits and vegetables should be rubbed by hand or scrubbed with a clean brush while rinsing under running tap water. • Packaged fruits and vegetables labeled “ready-to-eat,” “washed” or “triple washed” should not be washed. • Dry fruits and vegetables with a clean cloth or paper towel. • Do not use soap or bleach to wash fresh fruits or vegetables. These products are not intended for consumption.	SEPARATE produce from raw meat, seafood, poultry, eggs and household chemicals  • In your shopping cart and in bags at checkout, separate fresh fruits and vegetables from household chemicals and raw meat, poultry, seafood and eggs. • In your refrigerator, keep fresh fruits and vegetables separate from raw meat, poultry, seafood and eggs. • When preparing food, keep fresh fruits and vegetables separate from raw meat, poultry seafood, and eggs. Do not use the same cutting board or utensils without cleaning with hot water and soap before and after preparing fresh fruits and vegetables.
CHILL cut fresh produce within two hours to prevent bacteria growth  • Keep your refrigerator at or below 40°F. • Refrigerate all cut, peeled or cooked fresh fruits and vegetables within two hours of preparing.	THROW AWAY bruised, damaged or potentially cross-contaminated produce  • Throw away any fresh fruit and vegetables that have not been refrigerated within two hours of cutting, peeling or cooking. • Remove and throw away bruised or damaged portions of fruits and vegetables when preparing to cook them or before eating them raw. • Throw away any fruit or vegetables that have touched raw meat, poultry, seafood or eggs. • If in doubt, throw it out!

<https://fightbac.org/food-safety-education/safe-produce/>

Recommendations:

1. Support your state and local health department's food and water safety programs.
2. Follow steps for food safety at home (<https://www.foodsafety.gov/keep-food-safe/4-steps-to-food-safety>) and when eating out (<https://www.foodsafety.gov/blog/food-safety-and-eating-out>).
3. Clean fresh produce properly (<https://fightbac.org/food-safety-education/safe-produce/>).

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