

# Campylobacter

## **What is *Campylobacter* infection?**

Campylobacteriosis is an infectious disease caused by bacteria of the genus *Campylobacter*. Most people who become ill with campylobacteriosis get diarrhea, cramping, abdominal pain, and fever within 2 to 5 days after exposure to the organism. The diarrhea may be bloody and can be accompanied by nausea and vomiting. The illness typically lasts 1 week. Some persons who are infected with *Campylobacter* don't have any symptoms at all. In persons with compromised immune systems, *Campylobacter* occasionally spreads to the bloodstream and causes a serious life-threatening

## **How common is *Campylobacter*?**

*Campylobacter* is one of the most common bacterial causes of diarrheal illness in the United States. Virtually all cases occur as isolated, sporadic events, not as a part of large outbreaks. Active surveillance through FoodNet indicates about 20 cases are diagnosed each year for each 100,000 persons in the population. Many more cases go undiagnosed or unreported, and campylobacteriosis is estimated to affect over 1.5 million persons every year. Campylobacteriosis occurs much more frequently in the summer months than in the winter.

## **What are the symptoms of *Campylobacter* infection?**

People with *Campylobacter* infection usually have diarrhea (often bloody), fever, and stomach cramps. Nausea and vomiting may accompany the diarrhea. Symptoms usually start two to five days after infection and last about one week. Some people experience complications, such as irritable bowel syndrome, temporary paralysis, and arthritis. In people with weakened immune systems, such as those with a blood disorder, with AIDS,

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or receiving chemotherapy, *Campylobacter* occasionally spreads to the bloodstream and causes a life-threatening infection.

## **How does food and water get contaminated with *Campylobacter*?**

*Campylobacter* can contaminate food and water in several ways.

Many chickens, turkeys, cows, and other animals that show no signs of illness carry *Campylobacter*. *Campylobacter* can be carried in the intestines, liver, and other organs of animals and can be transferred to other edible parts when an animal is slaughtered. In 2015, [National Antimicrobial Resistance Monitoring System \(NARMS\)](#) testing found *Campylobacter* on 24% of raw chicken bought from retailers.

Milk can become contaminated when a cow has a *Campylobacter* infection in her udder or when milk is contaminated with manure. [Pasteurization](#) makes milk safe to drink.

Fruits and vegetables can be contaminated through contact with soil or water containing feces (poop) from cows, birds, or other animals. Animal feces can contaminate lakes and streams. Washing or scrubbing fruits and vegetables and disinfecting untreated drinking water helps [prevent illness](#).

## **How do people get infected with *Campylobacter* bacteria?**

It takes very few *Campylobacter* bacteria to make someone sick. A single drop of juice from raw chicken can contain enough bacteria to infect someone.

Most *Campylobacter* infections are probably acquired by eating raw or undercooked poultry or eating something that touched it. *Campylobacter* are also transmitted by other foods, including seafood, meat, and produce; by contact with animals; and by drinking untreated water.

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People can get infected when a cutting board that has been used to cut and prepare raw chicken isn't washed before it is used to prepare foods that are served raw or lightly cooked, such as salad or fruit. People can also get infected through contact with [dog or cat](#) feces. Very rarely, people have become infected through a transfusion of contaminated blood.

*Campylobacter* does not usually spread from one person to another.

## How can campylobacteriosis be treated?

Most people recover from *Campylobacter* infection without antibiotic treatment. Patients should drink extra fluids as long as diarrhea lasts.

Some people with, or at risk for, severe illness might need antibiotic treatment. These people include those who are 65 years or older, pregnant women, and people with weakened immune systems, such as those with a blood disorder, with AIDS, or receiving chemotherapy.

## Is *Campylobacter* infection serious?

Most people with a *Campylobacter* infection recover completely within a week, although some shed (get rid of) *Campylobacter* bacteria in their stool for weeks after recovery. *Campylobacter* infection rarely results in long-term health problems. Some studies have estimated that 5–20% of people with *Campylobacter* infection develop [irritable bowel syndrome](#) for a limited time and 1–5% develop [arthritis](#).

About one in every 1,000 reported *Campylobacter* illnesses leads to [Guillain-Barré syndrome \(GBS\)](#). GBS happens when a person's immune system is triggered by an infection. People with GBS can have muscle weakness or sometimes paralysis that can last for weeks and often require intensive medical care. Most people recover fully, but some have permanent nerve damage. Estimates indicate that as many as 40% of GBS cases in the United States might be triggered by *Campylobacter* infection.

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## **What can be done to prevent the infection?**

There are simple food handling practices for preventing Campylobacter infections. Physicians who diagnose campylobacteriosis and clinical laboratories that identify this organism should report their findings to the local health department. If many cases occur at the same time, it may mean that many people were exposed to a common contaminated food item or water source which might still be available to infect more people. When outbreaks occur, community education efforts can be directed at proper food handling techniques, especially thorough cooking of all poultry and other foods of animal origin, and common sense kitchen hygiene practices. Some data suggest that Campylobacter can spread through a chicken flock in their drinking water. Providing clean, chlorinated water sources for the chickens might prevent Campylobacter infections in poultry flocks and thereby decrease the amount of contaminated meat reaching the market place.

## **Some Tips for Preventing Campylobacteriosis**

Cook all poultry products thoroughly. Make sure that the meat is cooked throughout (no longer pink), any juices run clear, and the inside is cooked to 170oF (77oC) for breast meat, and 180oF (82oC) for thigh meat.

If you are served undercooked poultry in a restaurant, send it back for further cooking. Wash hands with soap before handling raw foods of animal origin.

Wash hands with soap after handling raw foods of animal origin and before touching anything else.

Prevent cross-contamination in the kitchen:

Use separate cutting boards for foods of animal origin and other foods.

Carefully clean all cutting boards, countertops and utensils with soap and hot water after preparing raw food of animal origin.

Avoid consuming unpasteurized milk and untreated surface water.

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Make sure that persons with diarrhea, especially children, wash their hands carefully and frequently with soap to reduce the risk of spreading the infection.

Wash hands with soap after having contact with pet feces.

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