

PUBLIC HEALTH REFERENCE SHEET

Campylobacteriosis



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| Name | <i>Campylobacter jejuni</i> (most common) |
| Reservoir & Transmission | Animals, most frequently poultry and cattle; puppies, kittens, other pets; swine, sheep, rodents, and birds also sources of human infection Ingestion of organisms in undercooked meat, unpasteurized dairy products, or other contaminated food or water, or from direct contact with infected animals |
| Incubation Period | Usually 2–5 days with a range of 1–10 days |
| Common Symptoms | Diarrhea (which may be bloody), abdominal pain, fever, malaise, and nausea, sometimes with vomiting |
| Gold Standard Diagnostic Test | Culture from any clinical specimen (most commonly stool) |
| Risk Groups | Immunocompromised; those with decreased stomach acidity |
| Geographic Significance | Present worldwide |

What is campylobacteriosis?

Campylobacteriosis (*Campylobacter enteritis*) is an infectious disease caused by bacteria of the genus *Campylobacter*.

What is the occurrence of campylobacteriosis?

Campylobacter is one of the most common causes of diarrheal illness in the United States. Most cases occur as isolated, sporadic events and are not part of recognized outbreaks. Active surveillance through the Foodborne Diseases Active Surveillance Network (FoodNet) indicates that 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. The organism is isolated from infants and young adults more frequently than from persons in other age groups and from males more frequently than females. Although *Campylobacter* infection does not commonly cause death, case-fatality rates have been estimated from 0.01% to 1%.

How is *Campylobacter* transmitted?

Most cases of campylobacteriosis are associated with eating raw or undercooked poultry meat or from cross-contamination of other foods by these items. Outbreaks of *Campylobacter* have most often been associated with unpasteurized dairy products or contaminated water, poultry, and produce. Animals can also be infected, and some people get infected from contact with the stool of an ill dog or cat. The organism is not usually spread from one person to another, but this can happen if the infected person is producing a large volume of diarrhea. It only takes very few *Campylobacter* organisms (fewer than 500) to make a person sick. As little as one drop of juice from raw chicken meat can have enough *Campylobacter* in it to infect a person. The *Campylobacter* organisms from the raw meat can get onto the other foods.

Who is at risk for campylobacteriosis?

Anyone can get campylobacteriosis; however, it occurs most often in infants and young adults, as well as more often in males than females. Individuals with decreased stomach acidity, such as taking proton pump inhibitors (PPIs) or have hypochlorhydria (low stomach acid), may be more susceptible to campylobacteriosis. Those with weakened immune systems are at higher risk for severe disease.

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What are the signs and symptoms of campylobacteriosis?

People exposed to *Campylobacter* may experience mild or severe symptoms or no symptoms at all. The symptoms of campylobacteriosis include diarrhea, cramping, abdominal pain, and fever. The diarrhea may be bloody and can be accompanied by nausea and vomiting. In persons with compromised immune systems, *Campylobacter* occasionally spreads to the bloodstream and causes a serious life-threatening infection. Severe abdominal pain may be mistaken for acute appendicitis or inflammatory bowel disease. Symptoms persist for several days to 2 weeks.

What are potential complications of campylobacteriosis?

Although rare, some long-term consequences can result from campylobacteriosis. Some people may develop arthritis. Others may develop Guillain-Barré syndrome, which occurs when the immune system is "triggered" to attack the body's own nerves. This can lead to paralysis that lasts several weeks and usually requires intensive care. Approximately 1 in every 1,000 reported campylobacteriosis cases leads to Guillain-Barré syndrome.

How is campylobacteriosis diagnosed?

Campylobacter infection is diagnosed through stool culture.

How is campylobacteriosis treated?

There is no specific treatment for campylobacteriosis. Supportive treatment includes management of diarrhea. Azithromycin and fluoroquinolones (e.g., ciprofloxacin) are commonly used for treatment of severe disease; however, resistance to fluoroquinolones is common. Antimicrobial susceptibility testing can help guide appropriate therapy.

How can campylobacteriosis be prevented?

Proper food handling and handwashing practices can help prevent campylobacteriosis. This includes thoroughly cooking all poultry products before eating; washing hands with soap before and immediately after handling raw meat; and cleaning all cutting boards, countertops, and utensils with soap and hot water after preparing raw meat. In addition, avoid consuming unpasteurized milk (raw milk) and untreated surface water.

What are some public health considerations?

- Document species and source of infection, if known.
- Document relevant travel and deployment history occurring within the incubation period (2–5 days, range 1–10 days).
- Document circumstances for exposure (e.g., duty exposure, occupational activities, environmental exposures, other high-risk activities).
- Document if the case lives in, works in, or attends a high transmission setting.

References:

"Campylobacter," Centers for Disease Control and Prevention (CDC), last reviewed April 14, 2021. <https://www.cdc.gov/campylobacter/faq.html#>

Defense Health Agency. 2022. *Armed Forces Reportable Medical Events: Guidelines and Case Definitions*.

<https://www.health.mil/Reference-Center/Publications/2022/11/01/Armed-Forces-Reportable-Medical-Events-Guidelines>

Heymann, David L. ed. 2022. *Control of Communicable Diseases Manual*. 21st Edition. Washington, DC: APHA Press.

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