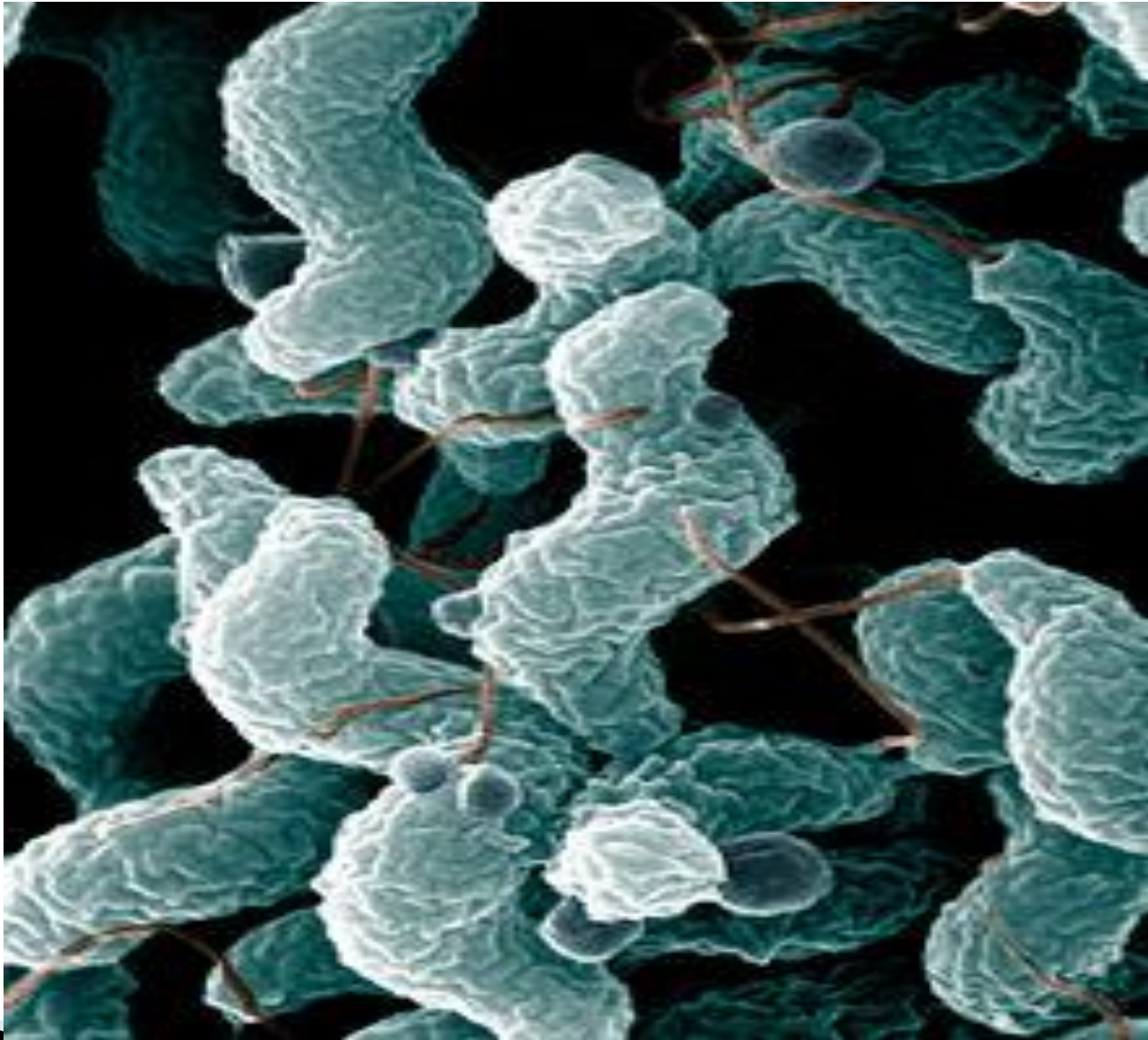


# *Campylobacter*

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*Campylobacter* (meaning "curved bacteria") is a genus of Gram-negative bacteria. *Campylobacter* typically appear comma- or s-shaped, and are motile.

Most *Campylobacter* species can infect humans and other animals, causing disease. The bacterium's main natural reservoir is poultry;

humans can contract the disease from eating food contaminated with *Campylobacter* species. Another source of infection is contact with infected animals, which often carry *Campylobacter* asymptotically. At least a dozen species of *Campylobacter* have been implicated in human disease, with C. jejuni and C. coli being the most common

with *C. jejuni* and *C. coli* being the most common. *C. jejuni* is now recognized as one of the main causes of bacterial foodborne disease in many developed countries. *C. jejuni* infection can also spread to the blood in individuals with AIDS

*C. lari* is a known cause of recurrent diarrhea in children.

*C. fetus* is a cause of spontaneous abortions in cattle and sheep, as well as an opportunistic pathogen in humans.

*Campylobacter* species generally appear as curved or comma-shaped rods, and are able to move via unipolar or bipolar flagella. They generally survive in environments with low oxygen. When exposed to atmospheric oxygen, *C. jejuni* is able to change into a coccal form They are positive by the oxidase test and catalase test. *Campylobacter* spp. are nonfermentative, and are best cultured at 42 °C.

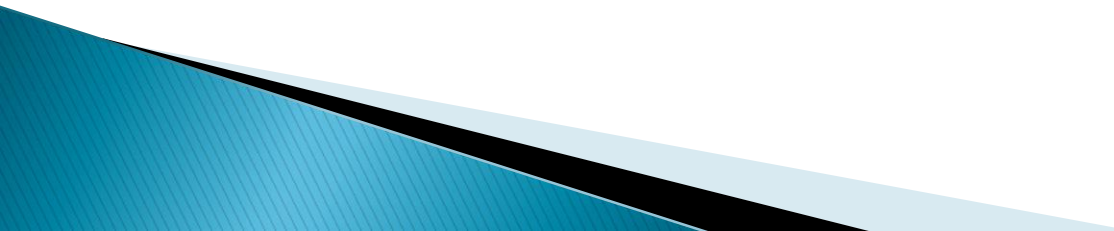
**Survival at room temperature is poor, but they can survive for a short time at refrigeration temperatures – up to 15 times longer at 2 °C than at 20 °C. The bacterium dies out slowly at freezing temperatures and is heat sensitive: the cells are destroyed at temperatures above 48 °C.**



## *Campylobacteriosis*

*Campylobacter* can cause a gastrointestinal infection called campylobacteriosis. The incubation period is 24–72 hours after infection. This is characterized by an inflammatory, sometimes bloody diarrhea or dysentery syndrome, mostly including cramps, fever, and pain. The most common routes of transmission are fecal-oral, ingestion of contaminated food or water, and the eating of raw meat.

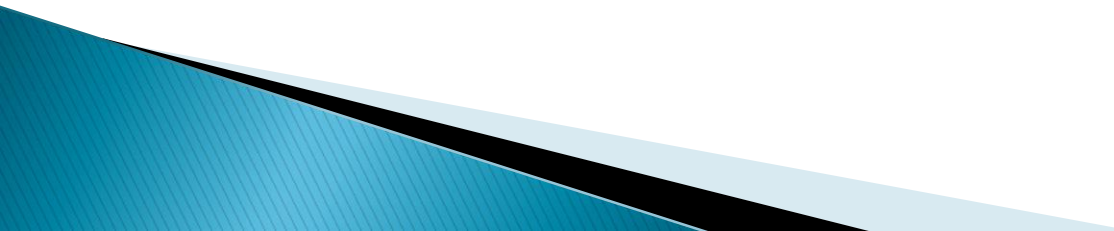
**the infectious dose is relatively high, and the bacteria rarely cause illness when a person is exposed to less than 10,000 organisms.**



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In humans, the sites of tissue injury include the jejunum, the ileum, and the colon. Most strains of *C jejuni* produce cytolethal distending toxin, which inhibits cell division and impedes activation of the immune system.

**This helps the bacteria to evade the immune system and survive for a limited time inside intestinal cells. A cholera-like enterotoxin was also, at one time, believed to be produced**



**The organism produces  
diffuse, bloody, edematous,  
and exudative enteritis.**

***Campylobacter* has, on rare  
occasions,**

*Campylobacter* has  
also been associated  
with periodontitis

## Treatment

The infection is usually self-limiting and, in most cases, symptomatic treatment by liquid and electrolyte replacement is sufficient to treat human infections. Symptoms typically last 5-7 days. Treatment with antibiotics has little effect, and is discouraged except in high-risk patients. Diagnosis of campylobacteriosis is made by testing a fecal specimen. Standard treatment in high-risk cases is azithromycin



other bactericidal antibiotics are used, such as ampicillin, amoxicillin/clavulanic acid, or aminoglycosides. Fluoroquinolone antibiotics, such as ciprofloxacin or levofloxacin, may no longer be effective in some cases, due to resistance. In addition to antibiotics, dehydrated children may require intravenous fluid treatment in a hospital.