

## **Genus: *Campylobacter***

### **Morphology**

Campylobacters are curved, Gram-negative rods that appear either **comma-** or **S-shaped** and are motile with monotrichous or unipolar flagellum. They are **microaerophilic**, growing best in 5% oxygen rather than in the 20% present in the atmosphere.

### **Pathogenesis and Clinical Findings**

*Campylobacter jejuni* is the most important species related to genus *Campylobacter*, its frequent cause of enterocolitis (Gastrointestinal infection), especially in children. Other *Campylobacter* species are rare causes of systemic infection.

*Campylobacter jejuni* is the leading cause of **campylobacteriosis**, it is a foodborne illness which is an infection associated with consumption of poultry, meat unpasteurized milk, contaminated water or contaminated fresh produce. It is a diarrheal disease in humans, produces an inflammatory, bloody diarrhea or dysentery syndrome, including cramps, fever and pain.

### **Transmission**

Domestic animals such as cattle, chickens, and dogs serve as a source of the organisms for humans. Transmission is usually fecal–oral through food and water contaminated with animal feces, or by direct contact with infected animals which carry *Campylobacter* asymptotically.

Human-to-human transmission occurs but is less frequent than animal-to-human transmission.

### **Laboratory Diagnosis**

If the patient has diarrhea, a stool specimen is cultured on a blood agar plate containing antibiotics that inhibit most other fecal flora. The plate is incubated at 42°C in a microaerophilic atmosphere containing 5% oxygen and 10% carbon dioxide, which favors the growth of *Campylobacter jejuni*. It is identified by failure to grow at 25°C, but it grows well at 42°C, whereas other *Campylobacter* species does not—an observation that is useful in microbiologic diagnosis.

## **Treatment**

Campylobacteriosis is usually self-limiting and antimicrobial treatment is often not required, except in severe cases or immune-compromised patients or in neonates.

Erythromycin or ciprofloxacin is used successfully in *Campylobacter jejuni* enterocolitis. **Antibiotics susceptibility test should be done for correct choice of antibiotics.**

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