# CAMPYLOBACTERIOSIS

## Epidemiology

**Source**:
-Food animal, poultry, cattle,
-Pets:dogs, cats, birds other animals

**Transmission**
- Ingestion of contaminated food
- Direct contact with infected fecal matter
- Person-to-person, rarely

**Infectious dose**
1 billion colony forming units

**Incubation**
**1-7 days**

**Clinical case definition:**
Diarrhea, cramping, abdominal pain, fever, nausea, vomiting
Possible blood present in stools

Communicability uncommon but greatest during acute phase.

**Complications:** sepsis (if immunocompromised), arthritis, Guillain-Barré syndrome, Reiter syndrome.

**Deaths** rare, mostly in infants, elderly, patients with underlying illnesses

-Affects 1% of the population in the US.
-46% of lab confirmed cases of bacterial gastroenteritis
-Most cases sporadic, outbreaks rare

**Exclude:** Symptomatic food handlers, hospital employees, child care center employees, children in diapers

Fragile in the environment, and sensitive to freezing, drying, acidic conditions (pH < 5.0), and salinity

## Diagnosis

*Campylobacter* species are motile, comma shaped, gram negative bacilli. *C. jejuni* and *C. coli* are the most common. *C. fetus* affects neonates.

**Lab Diagnosis**

- **Culture:** Feces for C. *jejuni* & *C. coli* ; Blood for *C. fetus;* Food only if associated with stools; Sensitive to oxygen and dessication
  - -Selective media, microaerophilic conditions, incubation temperature of 42ºC
  - -Motile, curved, spiral, or S shaped rods by stool phase contrast or darkfield microscopy
- Can be detected in stool specimens by EIA or PCR assay

**Probable:** Clinically compatible case
-Positive on EIA or PCR or
-Epidemiologically linked to a confirmed case

**Confirmed:** Clinically compatible case that is laboratory confirmed (isolation of *Campylobacter* from any clinical specimen)

## Treatment, Prophylaxis

**Treatment**

- •Usually self limiting and no treatment necessary
- •Rehydrate
- •Antibiotic therapy if infection is severe (high fever, bloody or frequent diarrhea), symptoms persist >1 wk, or for immunosuppressed patients
  - •Start therapy at onset of symptoms
  - •**Erythromycin** for *C. jejuni*
  - •Azithromycin and quinolones are alternatives

**Control**

- •Confirm cases
- •No investigation unless outbreak

**Exclude:** Symptomatic food handlers, hospital employees, child care center employees, children in diapers

Up to 2 days after symptoms subside

**Contact precautions**

## Control

**Preventive Measures**

- •Hand hygiene when handling raw meat.
- •Cook poultry products thoroughly (no pink)
- •Use separate cutting boards for raw meat & other foods
- •Sanitation when preparing food
- •Avoid unpasteurized milk and untreated water
- •Hand hygiene after contact with feces of dogs and cats

Control *Campylobacter* contamination on farms.
-strict hygiene
-give poultry chlorinated water to reduce colonization rates