Campylobacter jejuni

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The Organism: *Campylobacter jejuni* is a bacteria found in the intestinal tract of animals and poultry. The organism is sensitive to oxygen, drying, freezing, salting, and acid conditions. *Campylobacter jejuni* can produce a heat-labile toxin. This organism is very fragile outside of the body which makes it easy to control with proper food handling practices.

Sources of the organism:
- Normal microflora of most animals and poultry
- Contaminated water
- Infected pets

Associated foods:
- Poultry
- Raw meat (beef, pork, mutton)
- Unpasteurized milk
- Shellfish

Microorganism Characteristics: Gram negative microaerophilic curved or S shaped rod

Growth conditions:
- Temperature range: 30-50°C (86-122°F)
- Optimum Temperature: 42°C (108°F)
- pH range: 4.9-9.0
- Optimum pH: 6.5-7.5
- Oxygen Requirement: 3-5%
- Carbon Dioxide Requirement: 2-10%
- Optimum Requirements: 5% Oxygen, 10% Carbon Dioxide, 85% Nitrogen
- Salt Tolerance: 1.0%

The Disease: Campylobacterosis is an invasive gasteroenteritis in humans. Long-term effects of this food borne illness can be Guillain-Barre syndrome.

Symptoms include:
- Abdominal cramps
- Diarrhea
- Watery and occasionally bloody stools
- Headache
- Fever

Onset time:
- 2-3 days

Infective Dose:
- 400-500 cells need to be consumed for some to become ill; Higher numbers of cells are needed for others. Host susceptibility dictates infectious dose.

Duration of symptoms:
- 7-10 days

Control:
- Thoroughly cook meat, poultry and fish.
- Proper sanitation of food contact surfaces and utensils.
- Proper hand washing after handling raw meat, poultry and seafood.
- Use pasteurized milk.
- Use a safe water supply.