Vibrio

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The Organism: Three species of *Vibrio* are pathogenic for humans; *Vibrio cholerae, Vibrio parahaemolyticus,* and *Vibrio vulnificus. V. cholerae* is responsible for cholera outbreaks and epidemics.

Sources of the organism:
- Intestinal tracts of infected humans
- Fecally contaminated water

Associated foods:
- Seafood (fish, crab, shrimp, oysters), raw or undercooked

Microorganism Characteristics: Gram negative curved rod shaped bacteria

Growth conditions:
- Temperature range: 15-42°C (59-108°F)
- pH range: 6-11
- Lowest reported A_W for growth: 0.97

The Disease: *Vibrio* species cause symptoms of invasive gastroenteritis.

Symptoms include:
- Abdominal cramps
- Watery diarrhea
- Nausea
- Vomiting
- Fever
- Septicemia

Onset time:
- 2 hours -7 days depending on species

Infective Dose:
- Large numbers (>1 million cells) need to be consumed for symptoms of the illness to develop.

Duration of symptoms:
- 6-7 days

Control:

- Thoroughly cook seafood, including oysters.
- Use proper hand washing techniques and practice good personal hygiene.
- Proper sanitation of food contact surfaces and utensils.
- Use a safe water supply.