



Gram +ve bacteria

RODS

Bacillus

① Bacillus cereus

- Grow in food
- survive cooking, reheating
- causes nausea, vomiting abdominal cramps, diarrhea
- No treatment
- reported in immunosuppressed

② Bacillus anthracis

- long, black shaped rods.
- center spores
- virulence factors polypeptide
- exotoxins
- 3 types
 - ↳ Cutaneous → through skin
 - ↳ pulmonary → inhalation lung
 - ↳ Gastrointestinal → ingested

Listeria

- Found in soil, raw, undercooked meat
- hot dogs & cheese
- Resistant to long storage, refrigeration, heat, salt
- PH extreme, bilics

~~Sarc~~ Corynebacterium

- Diphtheria
- Virulence factor diphtheria toxin
- vaccine DPT
- pseudomembrane
- Asphyxiation ← cause
- via respiratory droplets
- ↳ from carriers
- ↳ actively infected individuals

Mycobacterium

- irregular bacilli
- Acid-fast staining
- Grow slowly
- virulence factor complex waxes that prevents destruction by lysosomes & macrophage

Clostridium

Difficile

- normal flora colon ↓ number
- antibiotic S. colitis
- Enterotoxin's Xintistine
- major cause of diarrhea in hospital
- treatment: stop antibiotics, fluid electrolyte replacement

perfringens

- soft tissue: wound infection
- virulence factor lytic enzyme
- treatment: Antibiotic, amputation

Tetanus

- common in soil, GI tract of animal
- cause tetanus or lockjaw
- neuromuscular disease
- IV drug abusers
- neonate in developing countries

Botulinum

- S inadequate food preservation
- toxin carried to neuromuscular junction
- ↳ block the release of Ach
- flaccid paralysis clinically
- ↳ Double vision
- ↳ Difficulty swallowing
- ↳ Neuromuscular symptom