# CLOSTRIDIUM DISEASES, TREATMENT

3 March 2006, 7 Mar 08, 6Mar09, 4Mar11, 2Mar12
p 1069, 1071, Sadava: 574, 579, Campbell 9th:

Clostridium: Gm + spore forming fastidious obligate anaerobe

**CLOSTRIDIUM obligate anaerobe, req. neutral pH, rich medium**.
Spores resist to 120°C, 15'

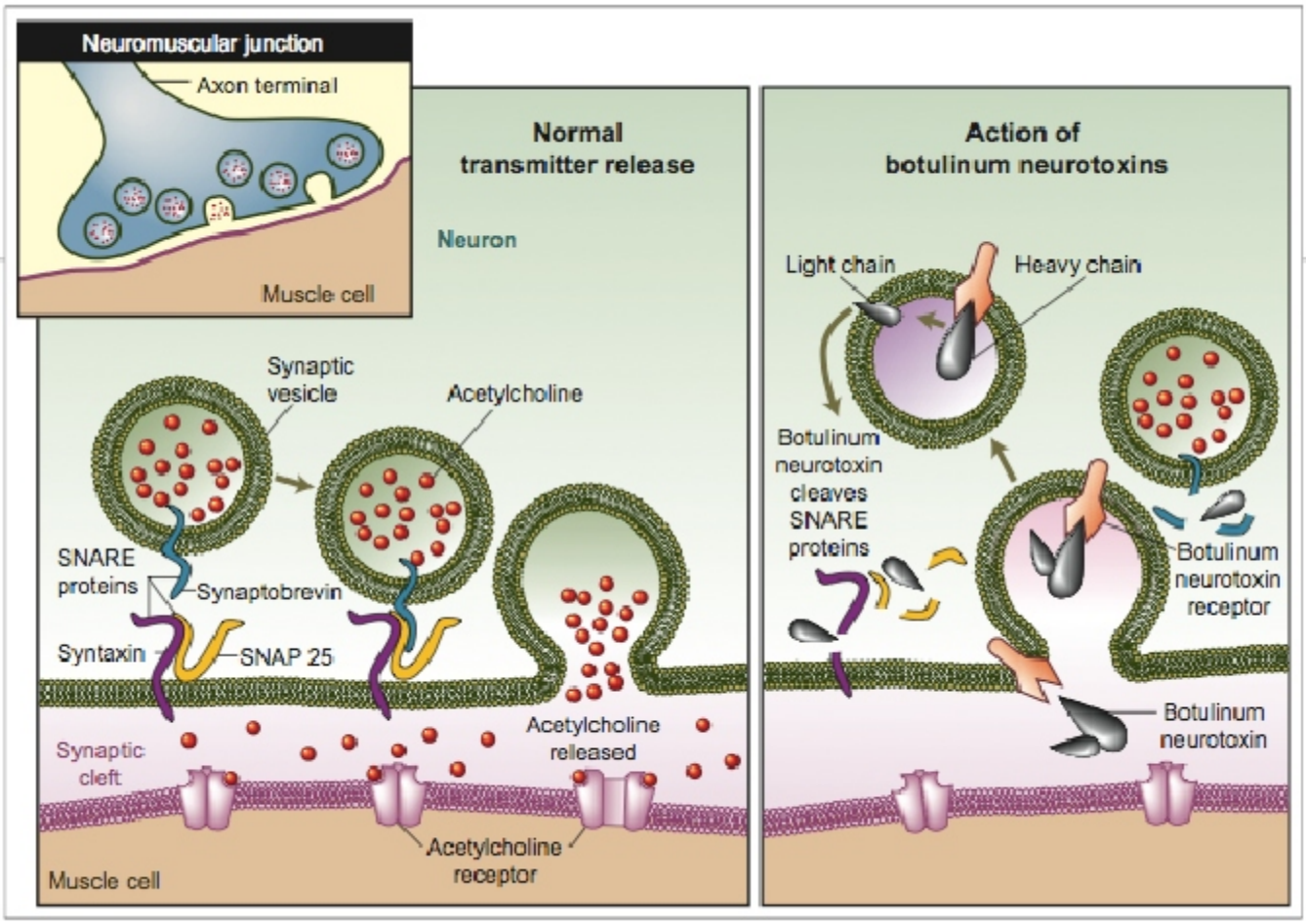
*C. tetani* terminal spores. When they, germinate, non-invasive.
Upon death&lysis, release toxin **exotoxin** in 4-10 days.
**Toxin prevents re-uptake of acetylcholine**: **spastic paralysis**, protect with **toxoid**.

**toxoid** = inactive toxin: "tetanus shot": you body makes anti-tetanus antibodies.

Isolated antitoxin (**gamma globulin**) injected if you *have* tetanus (p. 1109)

*C. botulinum* (sausage) fr non-acid home canned foods, esp. beans & green peppers.
Spores more resistant than any other anaerobe, 6 hr boiling.
Toxin coded for by **lysogenic phage**. (p. 386)

**Most potent toxin known**: cleaves "SNARE" proteins, **prevents release of acetylcholine**, causes **flaccid paralysis**. floppy baby syndrome.




*C. perfringens* **gas gangrene**, anaerobic tissue infected, produce $H_2$, terrible foul odor, bubbles "snap, crackle and pop" when patient is moved. **Debridement**, penicillin.