Wednesday, 7 January 2026 3:09 pm

Gram positive +

Endotoxins and Exotoxins → stain purple due to their thick peptidoglycan cell wall (Thick)

Endotoxins
- G- → No outer membrane
- component of LPS (Lipopolysaccharid) → No Endotoxins (G-)
- Released when Bacteria die or lyse. → produce Exotoxins
- The toxic part is lipid A → some can form spore (G+ Rods only)

Exotoxins
are toxic proteins that are actively secreted by bacteria into the surrounding tissue or bloodstream

Rode
- Spore
  - Aerobic
    - Bacillus Anthracis
      - (capsule - poly d glutamic acid)
    - Bacillus cereus
      - Enterotoxins → diarrhea
      - → ocular infe
      - Rice
  - Anaerobic
    - clostridium
      - ① difficile
        - → taking Antibiotics
        - → toxin A, toxin B
        - → Enzyme immunoassay test (EIA)
      - ② perfringens
        - → Make complete hemolysis and partial hemolysis.
        - → Entero toxin
        - → α-toxin / θ toxin
        - → Myositis and myonecrosis (gas gangrene)
        - muscle
      - ③ tetani
        - → tetanolysin → X RBC
        - → tetanospasmin → X GABA, X Gly
        - → spastic paralysis
      - ④ botulinum
        - → foodborn botulism
        - → infant botulism
        - honey
        - → Flaccid paralysis X Ach
- Non-spore
  - Aerobic
    - ① Nocardia
      - → weakly acid fast stain
      - → Exogenous inf
      - → Avoid phagocytic killing
      - → fistules and grains
    - ② Listeria monocytogenes
      - → Mother to child
      - hi mami
    - ③ coryne bacterium diptheriae
      - → Exudative pharyngitis
      - → Affect protein synthesis
  - Anaerobic
    - ① Actinomyces
      - → cervicofacial
      - → draining sinus
    - ② Mobiluncus M-curtisii → in bacterial vaginosis
    - ③ Lactobacillus
      - → commonly found in probiotics
      - → Faculative Anaerobic
    - ④ propinoibacterium
      - → found on the skin
      - → acne vulgaris
    - ⑤ Bifidobacterium and Eubacterium
      - → found in the oropharynx

cocci