

# Bacillus species

- Gram positive or variable - some cultures only positive in young cultures
- Pairs or chains
- Endospore former, oval, round or cylindrical, not repressed by air
- Aerobic to facultative anaerobic - some obligate aerobes (*B. megaterium* and *B. subtilis*)
- Catalase variable - usually positive (some negative but not usually seen in clinical settings)
- *B. anthracis* encapsulated
- Motility positive except for *B. anthracis*
- Nitrate variable
- Oxidase variable
- Optimal growth at 35°C

