

Bacillus species (13/12/2011) Group - (E)

MORPHOLOGY:

❖ **Microscopic:**

They appear as Gram positive rod-shaped bacilli. They are rod-shaped because they contain teichoic and teichuronic acid which keep the cell-wall rigid and rectangular.

If the slide appears **purple** or **blue** then it is a Gram stain

If the slide appears **pink** then it is Schaeffer–Fulton stain and you should look for the green spores.

❖ **Gross:**

Large, rough, flat, spread, irregular colonies.

GROWTH:

They grow on the following media:

- Nutrient agar
- Blood agar
- Starch agar
- Mannitol salt agar

BIOCHEMICAL CONFIRMATION TESTS:

- **Catalase:** most are catalase positive
- **Starch hydrolysis test:** give a positive test because bacilli produce amylase enzyme which degrades starch into mono- and di- saccharides. After adding Iodine to the colony the area around it remains clear because there is no starch to combine with the Iodine.