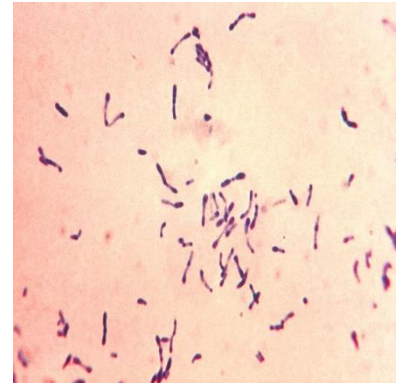


Lab.15. Aerobic Non–Spore-Forming Gram-Positive Bacilli:❖ *Corynebacterium diphtheriae*

○ General characters

- Gram positive bacilli, with characteristic morphology (club shaped and beaded)
- Arranged in palisades or in V or L shaped
- Rods are in form Beads(consist of granules of highly polymerized polyphosphate)
- Non motile , Non spore forming , Non capsulated
- Facultative anaerobic
- Catalase and Oxidase positive

**Specimens**

A throat swap

Culture

The swap is inoculated on **Loeffler's serum** medium and/or on **blood tellurite agar** aerobically at 37C for 24hrs.

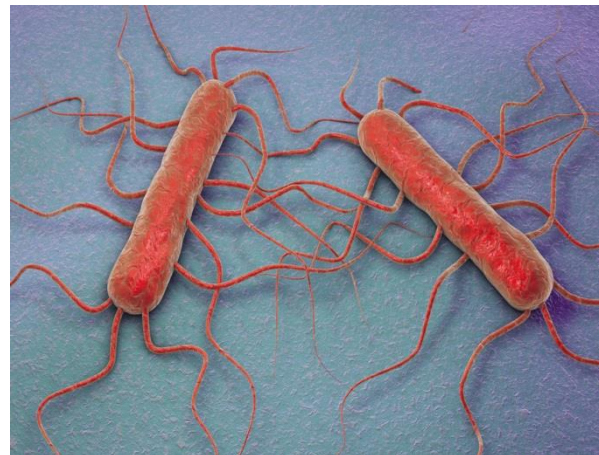
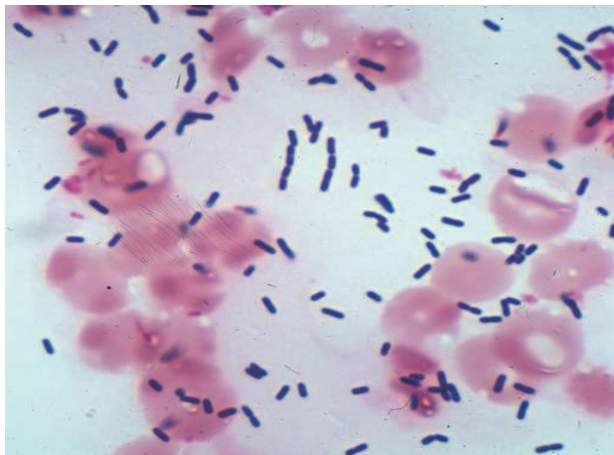
The colonies of *C. diphtheriae* are small, granular, grey, smooth with irregular edges Loefflers serum.

**Biochemical Reaction**

All *Corynebacterium* species are **catalase positive**

❖ *Listeria monocytogenes*

- Non-spore-forming
- Gram-positive
- Range: coccobacilli to long filaments
- Long filamentous forms
- Non capsulated
- facultative anaerobic microbes
- Saprophyte in soil , Present in water



Specimens

vaginal swabs, and piece placenta

cultures

Listeria grows well on media such as 5% **sheep blood agar** on which it exhibits the characteristic small zone of hemolysis around and under colonies.



Biochemical tests

- Catalase + motile
- Ferments Glucose, Maltose, lactose produces acid but no gas