

Lec (9-10)

- 1- *Corynebacterium*;
- 2- *propionibacterium acnes*
bacteria

by

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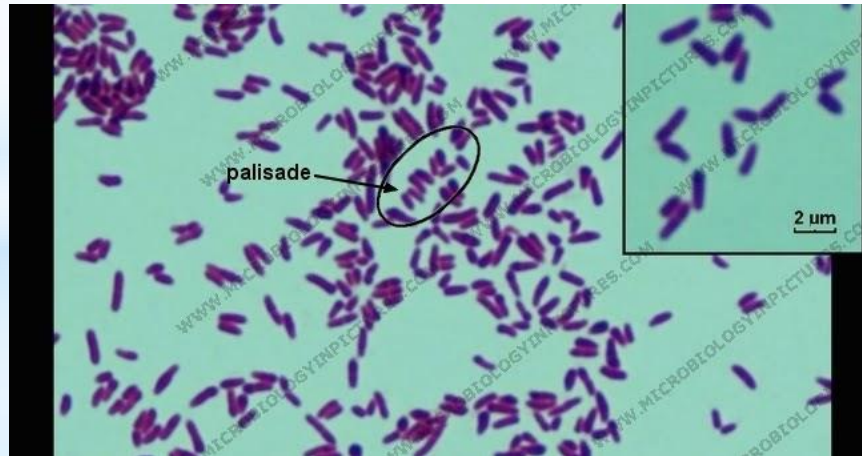


Corynebacterium: Habitat Skin ,upper respiratory tract, GI tract and Urogenital tract of humans. Example for these bacteria : ***C. diphtheria, C.pseudotuberculosis*** ,***C.jejkeium*** and ***C.ulcerans***.



* Microscopic appearance for *C. diphtheria*

Gram stain : *Corynebacterium* is a Gram-positive, rod-shaped bacteria (pleomorphic) , frequently shows club shaped swelling and hence the name Coryne meaning club (—Chinese letters) . They are non sporing , non capsulated and non motile. The granules are composed of polymetaphosphate granules.



Selective media for *C. diphtheriae*

- * **Hoyle's tellurite agar:** incubated in air at 35-37°C for 16-48hr. black colonies not diagnostically significant, tellurite inhibits many organisms but not *C. diphtheriae*
- * **Loeffler's serum and tellurite blood agar:** Diphtheria bacilli grow on Loeffler's serum slope very rapidly and colonies can be seen in 6-8 hours, long before other bacteria grow. Colonies are at first small, circular white opaque discs but enlarge on continued incubation and may acquire a distinct yellow color



Antibiotics:

Diphtheria is also treated with antibiotics, such as penicillin or erythromycin. Antibiotics help kill bacteria in the body, clearing up infections. Antibiotics reduce to just a few days the length of time that a person with diphtheria is contagious.



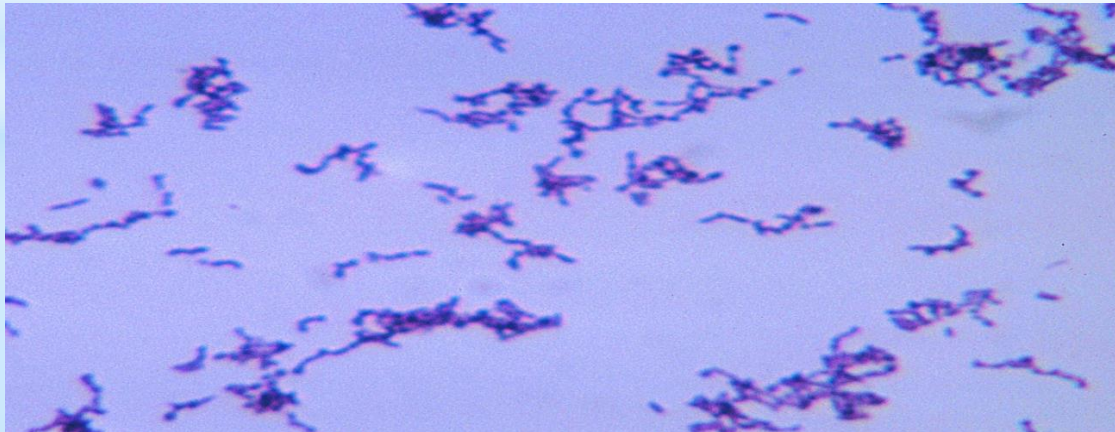
Propionibacterium acnes

The relatively slow-growing, typically aerotolerant anaerobic, Gram-positive bacterium (rod) linked to the skin condition of acne; it can also cause chronic blepharitis and endophthalmitis, the latter particularly following intraocular surgery. *P. acnes* can also colonize the nose, where it can then be responsible for local spread of acne to the face and back through contact



Microscopic appearance

Gram Stain:	Gram positive
Morphology:	Pleomorphic, branched and unbranched rods, coccoid forms, or bifid, but they are not filamentous. Cells occur in singly, in pairs or short chains, in "V" or "Y" configurations, or in clumps with a "Chinese character" arrangement.
Motility:	Non- motile
Capsules	None
Spores	None



Selective medium for *P. acnes*

Yeast Extract, Sodium Lactate Medium (dairy).

*Treatment

In order to eradicate the infections, device removal is recommended. *P. acnes* is usually susceptible to a wide range of common antibiotics, although some, particularly in acne patients, have been found to be resistant to clindamycin, erythromycin and tetracyclines

