

# Clostridium

*Clostridium* spp.

*Clostridiaceae*

*Clostridium*



Clostridium Perfringens

<b>Morphology</b>	G + sticks
<b>Relation to oxygen</b>	anaerobic
<b>Occurrence</b>	soil, mud, ponds, rivers and the coast, dust, vegetation, many species are commensal in the intestines of vertebrates and humans
<b>Disease</b>	neurointoxication, necrotizing toxin infections, intestinal disease processes
<b>Therapy</b>	beta lactam ATB (penicillin G), cephalosporins (cefoxitin), deoxylinecomycin, clindamycin, vancomycin, tetracyclines, erythromycin, chloramphenicol, metronidazole

Template:Infobox - bacteria

An important group of bacteria, whose common characteristics are sensitivity to oxygen and the ability to sporulate. Developmentally, it belongs to a very old group of bacteria with numerous links to archaeobacteria.

- **Morphology:** G + rods, variously long and wide, mostly straight.
- **Occurrence:** Widespread in nature, occur in soil, mud (ponds, rivers, sea coast), dust, vegetation. Many species saprophyte in the gut of vertebrates and humans.

## Disease

Clostridia cause 3 types of disease:

- Neurointoxication (*C. tetani*, *C. botulinum*).
- Necrotizing toxiinfection of soft tissues and intra-abdominal organs containing muscle (histotoxic clostridia).
- Intestinal processes (necrotizing enterocolitis, enterotoxemia, pseudomembranous enterocolitis and diarrhea).

## Shortcuts

- *Clostridium botulinum*
- *Clostridium difficile*
- *Clostridium novyi*
- *Clostridium tetani*
- *Clostridium perfringens*
- *Clostridium septicum*
- *Clostridium ulcerans*

## Photo gallery



Clostridium Botulinum



Clostridium Tetani

Links

Related articles

- Pseudomembranous enterocolitis
- Botulism
- Tetanus
- Enterotoxins
- Sporulation

References

▪ BEDNÁŘ, M, V FRAŇKOVÁ and J SCHINDLER, et al. *Medical microbiology - bacteriology, virology, parasitology*. 1st edition. Prague: Marvil, 1996. 558 pp. ISBN 80-238-0297-6 .

Bacteria	

G +

coke	aerobic	<table><tr><td><i>Micrococcus</i></td><td><i>Micrococcus luteus</i></td></tr><tr><td><i>Rhodococcus</i></td><td><i>Rhodococcus equi</i></td></tr></table>	<i>Micrococcus</i>	<i>Micrococcus luteus</i>	<i>Rhodococcus</i>	<i>Rhodococcus equi</i>	
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sticks	aerobic + facultative anaerobic	<table><tr><td><i>Arcanobacter</i></td><td><i>Arcanobacterium haemolyticum</i></td></tr><tr><td><i>Bacillus</i></td><td><i>Bacillus anthracis</i> • <i>Bacillus cereus</i></td></tr><tr><td><i>Corynebacterium</i></td><td><i>Corynebacterium diphtheriae</i> • <i>Corynebacterium jeikeium</i> • <i>Corynebacterium ulcerans</i> • <i>Corynebacterium urealyticum</i></td></tr><tr><td><i>Erysipelothrix</i></td><td><i>Erysipelothrix rhusiopathiae</i></td></tr><tr><td><i>Listeria</i></td><td><i>Listeria monocytogenes</i></td></tr><tr><td><i>Nocardia</i></td><td><i>Nocardia asteroides</i> • <i>Nocardia brasiliensis</i></td></tr><tr><td><i>Rhodococcus</i></td><td><i>Rhodococcus equi</i></td></tr></table>	<i>Arcanobacter</i>	<i>Arcanobacterium haemolyticum</i>	<i>Bacillus</i>	<i>Bacillus anthracis</i> • <i>Bacillus cereus</i>	<i>Corynebacterium</i>	<i>Corynebacterium diphtheriae</i> • <i>Corynebacterium jeikeium</i> • <i>Corynebacterium ulcerans</i> • <i>Corynebacterium urealyticum</i>	<i>Erysipelothrix</i>	<i>Erysipelothrix rhusiopathiae</i>	<i>Listeria</i>	<i>Listeria monocytogenes</i>	<i>Nocardia</i>	<i>Nocardia asteroides</i> • <i>Nocardia brasiliensis</i>	<i>Rhodococcus</i>	<i>Rhodococcus equi</i>
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Go

sticks

facultatively  
anaerobic

<i>Actinobacillus</i>	<i>Actinobacillus equi</i> • <i>Actinobacillus lignieresii</i>
<i>Aeromonas</i>	<i>Aeromonas caviae</i> • <i>Aeromonas hydrophila</i> • <i>Aeromonas sobria</i>
<i>Afipia</i>	<i>Afipia felis</i>
<i>Citrobacter</i>	<i>Citrobacter freundii</i> • <i>Citrobacter koseri</i>
<i>Eikenella</i>	<i>Eikenella corrodens</i>
<i>Enterobacter</i>	<i>Enterobacter aerogenes</i> • <i>Enterobacter cloacae</i>
<i>Escherichia</i>	<i>Escherichia coli</i>
<i>Haemophilus</i>	<i>Haemophilus ducreyi</i> • <i>Haemophilus haemolyticus</i> • <i>Haemophilus influenzae</i> • <i>Haemophilus parainfluenzae</i>
<i>Klebsiella</i>	<i>Klebsiella granulomatis</i> • <i>Klebsiella oxytoca</i> • <i>Klebsiella pneumoniae</i>
<i>Pasteurella</i>	<i>Pasteurella haemolytica</i> • <i>Pasteurella multocida</i> • <i>Pasteurella ureae</i>
<i>Plesiomonas</i>	<i>Plesiomonas shigelloides</i>
<i>Proteus</i>	<i>Proteus mirabilis</i> • <i>Proteus vulgaris</i>
<i>Salmonella</i>	<i>Salmonella</i> Enteritidis • <i>Salmonella</i> Typhi • <i>Salmonella</i> Paratyphi
<i>Serratia</i>	<i>Serratia marcescens</i>
<i>Shigella</i>	<i>Shigella boydii</i> • <i>Shigella dysenteriae</i> • <i>Shigella flexneri</i> • <i>Shigella sonnei</i>
<i>Vibrio</i>	<i>Vibrio cholerae</i> • <i>Vibrio parahemolyticus</i>
<i>Yersinia</i>	<i>Yersinia enterocolitica</i> • <i>Yersinia pestis</i> • <i>Yersinia pseudotuberculosis</i>

microaerophilic

<i>Campylobacter</i>	<i>Campylobacter coli</i> • <i>Campylobacter fetus</i> • <i>Campylobacter jejuni</i>
<i>Helicobacter</i>	<i>Helicobacter pylori</i>

anaerobic

<i>Bacteroides</i>	<i>Bacteroides fragilis</i> • <i>Bacteroides vulgatus</i>
<i>Fusobacterium</i>	<i>Fusobacterium necrophorum</i> • <i>Fusobacterium nucleatum</i> • <i>Fusobacterium stabile</i>
<i>Leptotricha</i>	<i>Leptotricha buccalis</i>
<i>Mobiluncus</i>	<i>Mobiluncus curtisii</i> • <i>Mobiluncus mulieris</i>
<i>Prevotella</i>	<i>Prevotella melaninogenica</i>
<i>Porphyromonas</i>	<i>Porphyromonas gingivalis</i>

acid resistant	<div>sticks</div> <div> <div>aerobic</div> <div> <i>Mycobacterium</i> <i>Atypical mycobacteria • Mycobacterium tuberculosis • Mycobacterium leprae</i> </div> </div>
non-stainable G +/-	<div>spiral</div> <div> <div>strictly aerobic</div> <div> <i>Leptospira</i> <i>Leptospira biflexa • Leptospira interrogans • Leptospira parva</i> </div> </div> <div> <div>microaerophilic</div> <div> <i>Borrelia</i> <i>Borrelia burgdorferi • Borrelia hermsi • Borrelia recurrentis • Borrelia vincenti</i> </div> </div> <div> <div>strictly anaerobic</div> <div> <i>Treponema</i> <i>Non-pathogenic treponems • Treponema carateum • Treponema pallidum • Treponema phagedenis • Treponema pertenue</i> </div> </div>
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