

Vibrio

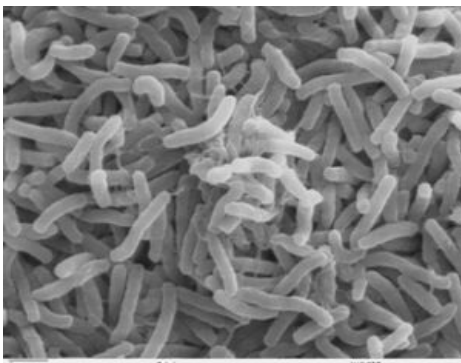
Template:Infobox - bakterie The genus *Vibrio* belongs to the family **Vibrionaceae**, which includes the genera *Vibrio* and *Photobacterium*.^[1] They are facultatively anaerobic gram-negative curved rods belonging to non-sporulating bacteria. It differs from the *Enterobacteriaceae* family by the polar location of the flagella and the positive oxidase reaction.^[1]

Basic characteristics

All species are motile and use a **flagellum** to move. Due to its rapid movement, this genus was named *Vibrio*. They have fermentative and respiratory metabolism. Some species, such as *Vibrio fischeri*, are capable of bioluminescence due to the enzyme luciferase, causing the so-called fluorescence of the sea. They live mainly in **tropical and subtropical areas**, freely in salt water, but we can also find them in fresh water, or in coexistence with marine animals, where they act as symbionts, but also as parasites. They are most often found in ports. *Vibrios* are also often human pathogens. These include, for example, *V. cholerae*, *V. parahaemolyticus* and *V. vulnificus*. The infection usually occurs after ingestion of undercooked seafood, especially oysters, or after ingestion of contaminated water, which can result in gastroenteritis or general sepsis. Transmission is also possible from person to person via the fecal-oral route. Wild pathogenic vibrios can enter open wounds and cause an inflammatory reaction.

Vibrio cholerae

Vibrio cholerae is the most important species of the genus *Vibrio*. We divide the species *V. cholerae* into two groups. Serotypes O1 and O139 belong to the first group, they produce **cholera toxin** and cause **cholera**. We also divide the El Tor strain from the *V. cholerae* O1 group. We classify all other strains in the second group and call them non-O1 / non-O139 serotypes. Some of them also produce toxins and occasionally cause diarrheal diseases.



Links

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- Diarrheal diseases : Viral gastroenteritis ■ Bacterial gastroenteritis ■ Gastrointestinal parasitosis ■ Enterotoxigenesis ■ Drug-induced diarrhea ■ Differential diagnosis of diarrheal diseases ■ Treatment of diarrheal diseases

References

1. VOTAVA, Miroslav. *Lékařská mikrobiologie speciální*. Brno: Neptun, 2003, xxii, 71 s. ISBN 80-902896-6-5.

^[1]Literature

- MURRAY, Patrick R – ROSENTHAL, Ken S. *Medical microbiology*. 6. edition. Philadelphia : Mosby, 2009. pp. 317-320. ISBN 978-0-323-05470-6.
 - PRESCOTT, Lansing M – HARLEY, John P. *Microbiology*. 3. edition. Dubuque : Wm. C. Brown, cop. 1996. pp. 427-429. ISBN 0-697-21863-5.
1. BENEŠ, Jiří, et al. *Infectious medicine*. 1st edition. Galén, 2009. 651 pp. 246-249. ISBN 978-80-7262-644-1 .

