

Haemophilus Encyclopedia Article

Haemophilus

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Haemophilus

Haemophilus is a bacterial genus. The **bacteria** in this genus all share the characteristic of preferring to grow on solid laboratory media that contains blood cells. The blood supplies two factors that *Haemophilus* species require for growth. These are X factor and V factor. The utilization of these factors and of the blood cells causes the destruction of the cells and various characteristic reactions in the **blood agar**. Indeed, the name of the genus arise from these reactions.

Haemophilus are Gram negative in their **Gram staining** behavior and are very tiny rods in shape. The bacteria can display different shapes, and so is one of the types of bacteria known as pleomorphic bacteria. A hallmark of *Haemophilus* species is the formation of small colonies that are described as "satellites" around colonies of *Staphylococcus*.

In humans, *Haemophilus* is a normal resident of the throat and nose. However, spread of the bacteria beyond these sites can cause infections.

Haemophilus influenzae commonly infects children, causing a respiratory infection. This infection typically strikes those who already have the flu. The bacteria that cause these relatively severe reactions possess a **glycocalyx** that surrounds the each bacterium. The glycocalyx help thwart the host's immune response. Types of *Haemophilus influenzae* that cause less severe infections of the ears and the sinuses typically do not possess the glycocalyx.

Haemophilus influenzae infections can spread beyond the lungs. Spread to the central nervous system can result in an infection and **inflammation** of the sheath that surrounds nerve cells (**meningitis**). *Haemophilus influenzae* type b (which is also known as Hib) is particularly noteworthy in regard to meningitis. Hib can cause of fatal brain infection in young children.

Hib infections were once more common and dangerous. Now, however, the availability of a **vaccine** and the widespread requirement for a series of vaccinations early in life has greatly reduced the incidence of Hib meningitis.

Haemophilus can also spread to the airway. In that location, an infection known as epiglottitis can be produced. The resulting obstruction of the airway in children less than 5 years of age can be fatal.

Other species of note include *Haemophilus aegyptius*, the cause of conjunctivitis (or pinkeye), a very contagious disease in children, and *Haemophilus ducreyi*, a sexually transmitted disease that causes genital ulceration.