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Organology

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Effect of coronavirus on the upper respiratory system

Coronavirus is from a family of respiratory viruses. It gets its name from 'severe acute respiratory syndrome coronavirus 2', which was discovered in Wuhan, China, in December 2019. The illness it causes is the coronavirus disease, hence, the name COVID-19 as discovered in 2019.

The coronavirus causes structural damage to the respiratory epithelium (ciliated pseudostratified columnar epithelium) which leads to abnormal ciliary function. The mitochondria of the ciliated columnar cell gets infected with the virus, hence, depriving it from generating energy to the cilia for movement of air into the lungs. This causes shortness of breath in the affected person, which may lead to death as the body cannot survive without oxygen for too long. In affecting the respiratory system, it also affects the immune system by weakening the T-lymphocytes and B-lymphocytes from fighting against the virus which is another reason why the patient is prone to dying.