## **My Assignment**

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#### <u>Answer</u>

# THE IMPLICATIONS OF COVID-19 ON THE RESPIRATORY SYSTEMS OF HUMANS

### AN OVERVIEW OF THE VIRUS

The corona virus is an infectious disease that mainly affects the respiratory systems of humans eaily. The virus doesn't show its symptoms until about 7- 14 days. The virus has been sad to affect mainly and majorly older people, and individuals who already have underlying medical problems such as cancer, chronic respiratory disease or cardiovascular disease and those who smoke on a regular basis.

### THE RESPIRATORY SYSTEM OF HUMANS

the respiratory system of humans is our avenue for gaseous exchange, and we cannot do with out it. It serves as a means to exchange carbon dioxide for oxygen. the main components of the respiratory system are the , nose and mouth, the sinus, the trachea , the bronchial tubes and the lungs . The lungs are the main organs responsible for respiration and get their air supply from the bronchial tubes.

The corona virus attacks mainly the lungs because it is the least acidic organ in the body unlike the stomach. Corona virus attacks the respiratory tract cells, it then finds its way into the cilia which are found on the walls or on the lining of the bronchial tubes which then transport the air into the lungs. When the corona virus finds its way into the cilia of the bronchial tubes it then causes an obstruction in the cilia therefore,

making the cilia unable to perform its main functions in the bronchial tubes ,which is to sweep out bacteria and mucus found in the body .

The corona virus is dependent on some cells in the lungs for it to be able to replicate and spread. These cells serve as a receptor for the virus, one of the receptors used is the ACE2 receptor( angiotensin Converting Enzyme- enzymes attached to the outer surface cells in the lungs, arteries, heart, kidney and intestines ). The virus needs one or more co- factors for it to be Abe to penetrate the lungs cells . There are also progenitors in the bronchi that are responsible for the producing of the receptors of the corona virus.

The ACE2 receptors serve as entry point into the cells for the corona virus to replicate. when the virus then finds the way into the bronchial tubes, it first affects the cells of the throat, airways and the lungs ,then they multiply and spread to the other parts of the body cells . The virus easily spreads round the body because as the infected oxygenated blood gotten from the capillaries of the heart, moves to the pulmonary vein, and then to the left side of the heart, where the blood is then pumped round the body, so as the infected blood moves in this order , same for the corona virus, it also moves in this order and spreads to other parts of the body .

In some cases, corona virus doesn't kill most individuals, it mostly attacks those who already have ARDS- acute respiratory distress syndrome, or any form of respiratory problems, so as the virus steps in , the immune system of the individual, gets too weak to fight and therefore causing death to the patient.

#stay safe 😇.

REFERNCES WWW.MEDICALNEWTODAY.COM WWW.NCBI.NLM.NIH.GIV WWW.LIVESCIENCE.COM WWW.WIKIPEDIA.COM WWW.RNDSYSTEMS.COM WWW.BBC.COM