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**QUESTION;**

Convid-19 is the ongoing viral pandemic in the world and the reason you are at home. Discuss the anatomical implication of this virus on the respiratory system of human

**ANSWER;**

Coronavirus disease 2019 (COVID-19) is an illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency.

A virus infects your body by entering healthy cells. There, the invader makes copies of itself and multiplies throughout your body. The corona virus latches its spiky surface proteins to receptors on healthy cells, especially those in your lungs. Specifically, the viral proteins bust into cells through ACE2 receptors. Once inside, the coronavirus hijacks healthy cells and takes command. Eventually, it kills some of the healthy cells.

This illness caused by the coronavirus, starts with droplets from an infected person’s cough, sneeze, or breath. They could be in the air or on a surface that you touch before touching your eyes, nose, or mouth. That gives the virus a passage to the mucous membranes in your throat. Within 14 days, your immune system may respond with early symptoms like a sore throat, a fever, or a dry cough. The virus moves down your respiratory tract. That’s the airway that includes your mouth, nose, throat, and lungs. Your lower airways have more ACE2 receptors than the rest of your respiratory tract. So COVID-19 is more likely to go deeper than viruses like the common cold.

Your lungs might become inflamed, making it tough for you to breathe. This can lead to pneumonia, an infection of the tiny air sacs (called alveoli) inside your lungs where your blood exchanges oxygen and carbon dioxide. For most people, the symptoms end with a cough and a fever. More than 8 in 10 cases are mild. But for some, the infection gets more severe. About 5 to 8 days after symptoms begin, they have shortness of breath (known as dyspnea). Acute respiratory distress syndrome (ARDS) begins a few days later. ARDS can cause rapid breathing, a fast heart rate, dizziness, and sweating. It damages the tissues and blood vessels in your alveoli, causing debris to collect inside them. This makes it harder or even impossible for you to breathe therefore leading to death.