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ANATOMY

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**conducting portion of the respiratory system attacked by corona virus**

The virus is spread through droplets transmitted into the air from coughing or sneezing, which people nearby can take in through their nose, mouth or eyes. The viral particles in these droplets travel quickly to the back of your nasal passages and to the mucous membranes in the back of your throat, attaching to a particular receptor in cells, beginning there.

Coronavirus particles have spiked proteins sticking out from their surfaces, and these spikes hook onto cell membranes, allowing the virus’s genetic material to enter the human cell.

When the virus reaches the lungs, their mucous membranes become inflamed. That can damage the alveoli or lung sacs and they have to work harder to carry out their function of supplying oxygen to the blood that circulates throughout our body and removing carbon dioxide from the blood so that it can be exhaled. while the virus appears to zero in on the lungs, it may also be able to infect cells in the gastrointestinal system, experts say. This may be why some patients have symptoms like diarrhea or indigestion. Bone marrow and organs like the liver can become inflamed too, the virus will actually land on organs like the heart, the kidney, the liver, and may cause some direct damage to those organs”. As the body’s immune system shifts into high gear to battle the infection, the resulting inflammation may cause those organs to malfunction.

Once inside the body, it begins infecting epithelial cells in the lining of the lung. A protein on the receptors of the virus can attach to a host cell's receptors and penetrate the cell. Inside the host cell, the virus begins to replicate until it kills the cell.

This first takes place in the upper respiratory tract, which includes the nose, mouth, larynx and bronchi.

The patient begins to experience mild version of symptoms: dry cough, shortness of breath, fever and headache and muscle pain and tiredness, comparable to the flu. Restricting oxygen to the bloodstream deprives other major organs of oxygen including the liver, kidney and brain.

In a small number of severe cases that can develop into acute respiratory distress syndrome (ARDS), which requires a patient be placed on a ventilator to supply oxygen.

However, if too much of the lung is damaged and not enough oxygen is supplied to the rest of the body, respiratory failure could lead to organ failure and death.

