

# UNLEASHING INFLAMMATION and a CYTOKINE STORM

When a respiratory virus infects the lungs, every cough or sneeze may release air-borne droplets containing infective viruses.

## SYMPTOMS



FEVER



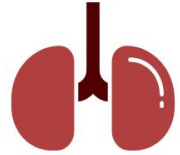
DRY COUGH



MUSCLE PAIN

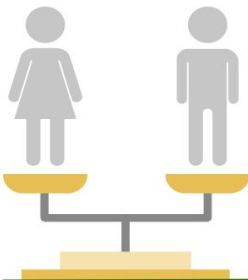


FATIGUE



DIFFICULTY IN  
BREATHING

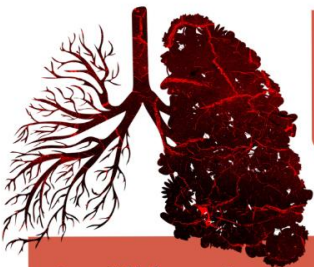
## IF THE BODY IS IN BALANCE...



To destroy the virus, the immune system recruits immune inflammatory cells to help the body fight the infection.

If the body is successful in controlling the infection, the inflammatory responses are down-regulated (decreased) and the natural healing process starts.

## IF NOT...



When the immune system cannot eliminate the infection, the inflammatory response is upregulated and too much inflammation occurs, causing damage to healthy lung tissue often resulting in pneumonia.

In addition to lung specific reactions, uncontrolled, “run-away” inflammation, can result in a “cytokine storm” or a condition called cytokine release syndrome.



Certain conditions may induce the release of massive amounts of inflammatory cells and their cytokines resulting in significant levels of uncontrollable inflammation.

Keeping the immune system in homeostasis, in balance may neutralize such responses.