

## Effects of smoking in SARS-CoV-2 infection.

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### Case Description

Smoking is thought to increase the risk of cardiovascular and respiratory illnesses, including infections, so susceptibility to serious illness from COVID-19 is expected to be linked to it [1-3]. This is particularly valid now that a new coronavirus strain, the extreme acute respiratory syndrome coronavirus (SARS-CoV-2), has arisen and sparked the latest pandemic, coronavirus disease 2019 (COVID-19). While the effects of smoking on COVID-19 are less well known and controversial, we agree there is a connection between the two.

SARS-CoV-2 uses the angiotensin-converting enzyme-2 (ACE-2) and transmembrane serine protease 2 (TMPRSS2) primary entry genes to infect cells and cause a cytokine storm, which has been shown to increase the severity of



**Figure 1:** Correlation between smoking and the expression of SARS-CoV-2.

the COVID-19 clinical path [4]. Nonetheless, the effect of smoking on the expression of the ACE-2 and TMPRSS2 receptors is perplexing. As a result, further research is needed to understand the connection between smoking and COVID-19, as well as to explore the advancement of new treatments that can reduce the morbidity and mortality caused by this infectious disease [5]. This image article represents the correlation between smoking and the expression of SARS-CoV-2.

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