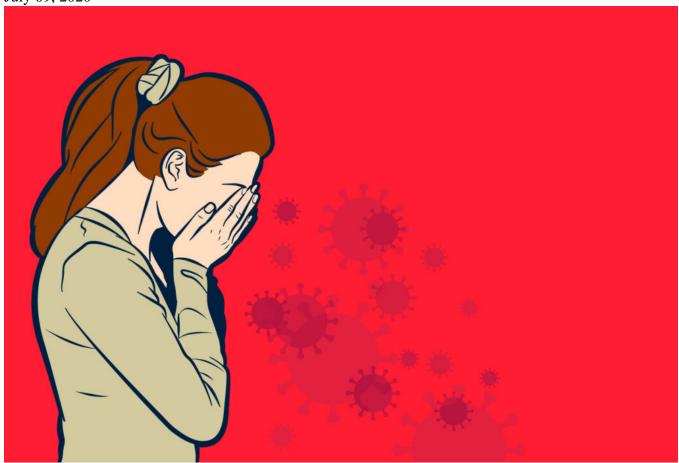
## **Contracting COVID-19: Lifestyle and Social Connections May Play a Role**

July 09, 2020



Summary: Current research indicates that a variety of behavioral factors, such as tobacco use, exercise habits, and quality of interpersonal relationships influence people's risk of developing upper respiratory infections. It is possible these same factors also increase the risk of contracting COVID-19

Unhealthy <u>lifestyle choices</u>, like smoking and avoiding exercise, are known risk factors for certain cancers and cardiovascular disease. A growing body of research reveals that these risk factors and a lack of supportive social connections can also increase the <u>risk of developing respiratory infections</u>, like the common cold and influenza.

A new article published in the journal <u>Perspectives on Psychological Science</u> explores how lifestyle, social, and psychological factors also may increase the risk of contracting <u>COVID-19</u>.

"We know little about why some of the people exposed to the coronavirus that causes COVID-19 are more likely to develop the disease than others," said <u>Sheldon Cohen</u>, a professor of psychology at

Carnegie Mellon University and one of the authors on the paper. "Our research on psychological factors that predict susceptibility to other respiratory viruses may provide clues to help identify factors that matter for COVID-19."

Through a series of studies spanning more than 30 years, Cohen and his team examined how lifestyle, social, and psychological factors affect whether or not healthy adults exposed to respiratory viruses become ill. This work focused on eight viral strains that cause the common cold and two that cause influenza.

"In our work, we intentionally exposed people to cold and influenza viruses and studied whether psychological and social factors predict how effective the immune system is in suppressing infection, or preventing or mitigating the severity of illness," said Cohen. "We found a strong correlation between social and psychological stressors and increased susceptibility."

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Intriguingly, the researchers also found that social integration and social support offer a protective shield against respiratory infection and illness.

Until now, the only tactics to slow the spread of coronavirus have been behavioral changes that reduce the probability of being exposed to the virus, such as stay-at-home measures and social-distancing requirements. These same behaviors, however, are often associated with interpersonal stressors, like loneliness, loss of employment, and familial conflict. According to the researchers, these stressors may be powerful predictors of how a person will respond if exposed to coronavirus because of the stressors' direct physiological effects on immunity and their psychological factors, which are thought to have their influence through the mind-body connection.

Cohen's work demonstrates that psychological and social stressors are associated with an overproduction of proinflammatory chemicals known as cytokines in response to cold and influenza viruses. In turn, this excess of inflammation was associated with an increased risk of becoming ill.

Similarly, research on COVID-19 has shown that producing an excess of proinflammatory cytokines is associated with more severe COVID-19 infections, suggesting that a stress-triggered excessive cytokine response might also contribute to excessive inflammation and symptoms in COVID-19 patients.

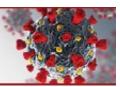
Cohen and his colleagues acknowledge that, as of now, there are no firmly established links between behavioral and psychological factors and the risk for disease and death in persons exposed to the corona virus that causes COVID-19. However, their prior body of research may be relevant to the current pandemic because, they note, the most potent predictors of disease, interpersonal and economic stressors, are the types of stressors that are commonly experienced among those who are isolated or in quarantine.

"If you have a diverse social network (social integration), you tend to take better care of yourself (no

smoking, moderate drinking, more sleep and exercise)," said Cohen. "Also if people perceive that those in their social network will help them during a period of stress or adversity (social support) then it attenuates the effect of the stressor and is less impactful on their health."

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Launched by the Association for Psychological Science in 2006, *Perspectives on Psychological Science* is a bimonthly journal publishing an eclectic mix of provocative reports and articles, including broad integrative reviews, overviews of research programs, meta-analyses, theoretical statements, and articles on topics such as the philosophy of science, opinion pieces about major issues in the field, autobiographical reflections of senior members of the field, and even occasional humorous essays and sketches. For a copy of this article, "Psychosocial Vulnerabilities to Upper Respiratory Infectious Illness: Implications for Susceptibility to Coronavirus Disease 2019 (COVID-19)," and access to other research in *Perspectives on Psychological Science*, contact news@psychologicalscience.org. Cohen, S., et. al, (2020) Psychosocial Vulnerabilities to Upper Respiratory Infectious Illness: Implications for Susceptibility to Coronavirus Disease 2019 (COVID-19). https://doi.org/10.1177/1745691620942516