



## Overview of SARS-CoV-2 and Possible Effects on Cardiovascular Health

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### DESCRIPTION

SARS-CoV-2 is a novel virus that has quickly spread around the world, creating a global pandemic. It is believed to have originated from an animal source and has caused significant illness and mortality in humans. As of now, there is much that remains unknown about SARS-CoV-2, but research is being done to learn more about its effects on a variety of body systems. This article will focus on the potential impact of SARS-CoV-2 on cardiovascular health. While the exact mechanisms are not yet clear, there is evidence that suggests SARS-CoV-2 may cause damage to the cardiovascular system. For instance, studies have shown that patients with COVID-19 are at an increased risk for cardiac events like heart attack or stroke. Additionally, some patients with COVID-19 have been found to develop acute myocardial injury or inflammation of the heart muscle. Furthermore, it appears that SARS-CoV-2 may also lead to thromboembolic events, which are caused by clots forming in blood vessels and blocking them off. The exact effects of SARS-CoV-2 on cardiovascular health may vary depending on underlying conditions and other factors like age and sex. In general, however, those who suffer from pre-existing heart conditions or hypertension should be particularly cautious when it comes to their exposure to the virus.

It is important for individuals who already have a history of cardiovascular disease or risk factors such as smoking or obesity to take extra precautions against contracting the virus and seek medical attention immediately if they display any symptoms associated with COVID-19. Furthermore, people who already take medications for their heart condition should be sure to continue taking their medication as prescribed by their doctor during this time even if they don't experience any symptoms related to COVID-19. It is also worth noting that those who contract SARS-CoV-2 may require additional treatment for their cardiovascular issues even after they have recovered from the virus itself due to lasting damage caused by the infection itself or long term inflammation of certain tissues in response to the infection. As such, it is important for those who have contracted SARS-CoV-2 to follow up with their doctor regularly

after recovering from the virus in order to ensure continued good health and catch any potential complications early on so they can be addressed appropriately. Overall, it appears that there is potential for significant damage caused by SARS-CoV-2 on the cardiovascular system even though more research needs to be done in order to better understand its full range of effects on human health. It is essential that individuals who are at risk for developing complications due to pre-existing conditions take extra precautions against contracting the virus while paying close attention for any symptoms related not only respiratory issues but also cardiac issues like chest pain or shortness of breath in order to seek prompt medical attention if necessary.

SARS-CoV-2 is the virus that causes COVID-19, and recent studies have suggested there may be a potential impact on cardiovascular health. As such, it is important to review the current scientific research regarding this serious issue. Studies suggest that SARS-CoV-2 can cause an array of cardiovascular symptoms. These can include inflammation of the heart muscle, arrhythmias, and even damage to the coronary arteries. Other studies have linked this virus to increased risk of thrombosis of blood vessels, resulting in stroke and myocardial infarction (heart attack). The virus has been found to increase levels of inflammation markers in some patients with COVID-19, leading to potentially serious complications such as cardiomyopathy. In addition to these direct effects on the heart, other studies have identified indirect factors associated with SARS-CoV-2. For instance, it has been linked to an increased risk for hypertension and diabetes due to lifestyle changes caused by lockdown measures or psychological stress resulting from the pandemic. It has also been associated with metabolic syndrome due to reduced physical activity and unhealthy dietary changes during lockdown periods. The World Health Organization (WHO) states that although SARS-CoV-2 is still being studied and more research is needed, there is a growing body of evidence linking it to cardiovascular conditions such as heart disease, stroke, metabolic syndrome and hypertension. Therefore it is essential for healthcare providers to be aware of this potential connection so they can take appropriate steps when diagnosing and treating patients.

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Cardiovascular health is a serious concern for those infected by SARS-CoV-2, as the virus has been linked to heart damage and other cardiac issues. There have been several reports of patients who were diagnosed with acute myocarditis an inflammation of the heart muscle following the contraction of the virus. Research conducted in China found that one in three COVID-19 patients had elevated levels of troponin, an indicator of heart damage. This suggests that this virus damages both cells and blood vessels, leading to inflammation, obstructed blood flow and poor circulation. In addition, evidence indicates that SARS-CoV-2 can increase the risk factors for cardiovascular diseases like hypertension and atherosclerosis. Studies have demonstrated

that the virus can directly cause vascular injury through its spike protein which binds to ACE2 receptor proteins found on the surface of cells in blood vessels. This process triggers an immune response which leads to inflammation, clotting problems and reduced blood flow. Further research into this relationship is necessary in order to better understand how it impacts cardiovascular health. Scientists are currently exploring ways to prevent SARS-CoV-2 related heart damage through treatments such as antiviral therapy or medication that targets ACE2 receptors, as well as lifestyle modifications such as diet, exercise and stress management techniques.