



can damage multiple organs and result in severe disease in children and teens. This is called multi-system inflammatory syndrome, and it can particularly affect the heart.

The National Heart, Lung, and Blood Institute (NHLBI) is supporting new studies, including clinical trials focused on developing safe and effective treatments for people infected with SARS CoV2.

Some people with COVID-19 develop abnormal blood clots, including lots of tiny clots in the smallest blood vessels. The clots may form in multiple places throughout the body, including the lungs. This unusual clotting may cause complications from organ damage to heart attack and stroke. People who already have damage to the blood vessels from diabetes or high blood pressure may be at higher risk of developing blood clots if they are infected with the virus.



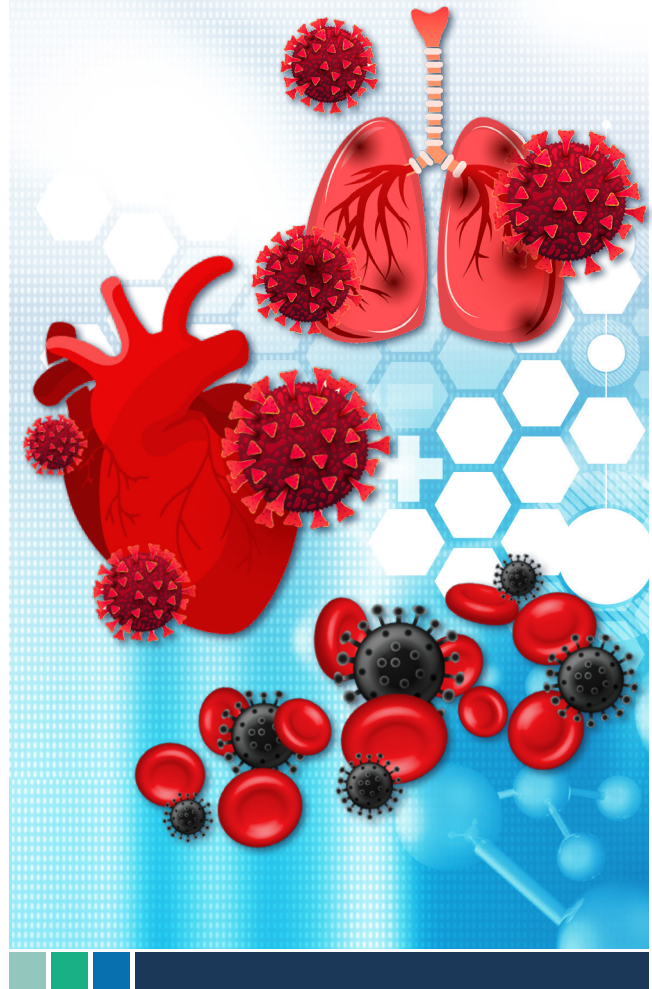
Researchers think the clotting may be triggered by the high levels of inflammation caused by the SARS CoV2 infection. The high inflammation levels



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EFFECTS OF COVID-19 ON YOUR BLOOD, HEART AND LUNGS

Effects of Long COVID-19 on your LUNGS, HEART AND BLOOD



HOW COVID-19 AFFECTS YOUR LUNGS

Inside your lungs, the airways end in clusters of air-filled sacks. These air sacks are surrounded by tiny blood vessels. Here, oxygen from your lungs passes into your bloodstream to get to tissues throughout your body. The virus infects cells along your airways.



The virus gets inside of the cells and makes more copies of itself. The virus causes inflammation, which causes the air sacs to scar and stiffen or fill with fluid.

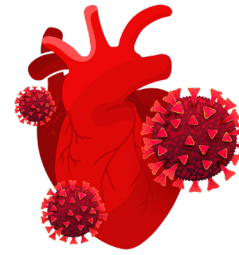


This blocks oxygen from passing from your lungs into your bloodstream. This causes shortness of breath.



HOW COVID-19 AFFECTS YOUR HEART

The heart is a muscle that needs oxygen to work. The heart pumps oxygen-rich blood from your lungs to tissues throughout the body so that they can function. COVID-19 most commonly affects the lungs, but it can also lead to serious heart problems. COVID-19 can damage the lungs, preventing enough oxygen from reaching the heart muscle.



This can injure the heart tissue and make it work harder to get oxygen to other tissues. In addition, your body responds to the virus by creating inflammation. The inflammation may damage the heart muscle or disrupt the electrical signals that help it beat properly. This could reduce its pumping ability or lead to an abnormal heart rhythm called an arrhythmia.

The virus may also infect the heart cells. Researchers are working to understand if and how much this contributes to heart

damage in people with COVID-19. Some people seriously ill with COVID-19 form many small blood clots throughout their body, including their heart, which can also cause damage. Researchers think that inflammation may in part trigger the clots. People who have high blood pressure, diabetes, or obesity are more likely to have problems with their heart due to COVID-19.



HOW COVID-19 AFFECTS YOUR BLOOD

In a healthy body, blood vessels carry oxygen-rich blood to organs throughout the body. When a blood vessel is injured, a blood clot helps repair the leak and prevents bleeding. Infection or damage to the inner lining of the blood vessel can also trigger clotting.

