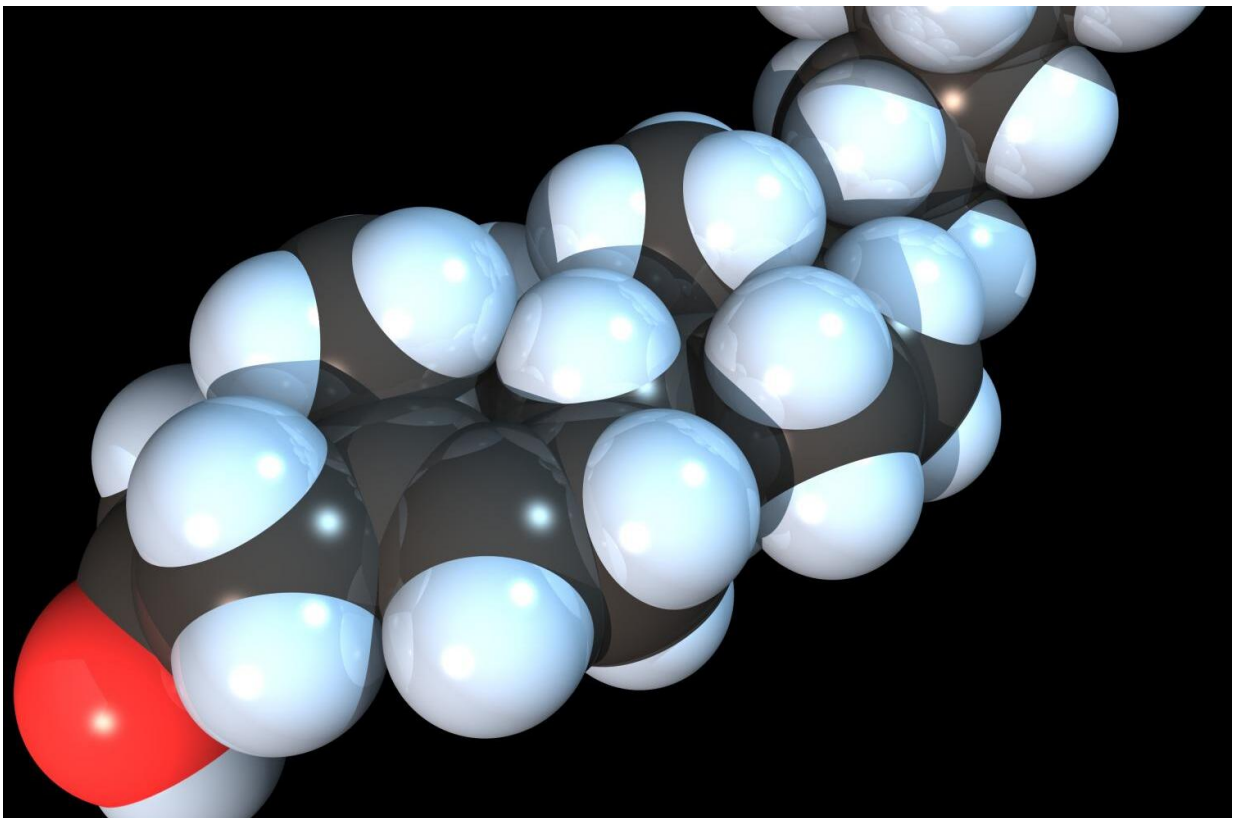


Regular use of common cholesterol-lowering drug linked to reduction of COVID-19 severity, risk of death

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Space-filling model of the Cholesterol molecule. Credit: RedAndr/Wikipedia

Commonly used cholesterol-lowering statins may reduce the risk of death and severity of COVID-19 disease, suggests a study of more than

38,000 patients being presented at the Anesthesiology 2022 annual meeting.

"While there is no 'magic bullet' to help patients who are very ill with COVID-19, statins decrease inflammation, which may help reduce the severity of the disease," said Ettore Crimi, M.D., MBA, lead author of the study and professor of anesthesiology and critical care medicine, University of Central Florida, Orlando. "Results of our study clearly showed regular statin use is associated with reduced risk of death and improved outcomes in hospitalized COVID-19 patients."

The retrospective study is one of the most extensive of regular statin use in patients with COVID-19. Researchers analyzed the [electronic medical records](#) of 38,875 patients hospitalized for COVID-19 at 185 hospitals in the United States between Jan. 1 and Sept. 30, 2020. Of those patients, 30% regularly used statins to treat high cholesterol. Statin users had a 37% lower risk of dying from COVID-19 than those who didn't use statins. In addition, regular statin users were significantly less likely to be discharged to hospice, be admitted to the intensive care unit (ICU) or develop blood clots. They also had shorter hospital stays and spent less time on a ventilator.

While COVID-19 itself causes inflammation, in some cases the [immune system](#) creates further inflammation by responding too aggressively to the infection. This extreme reaction causes much of the damage to the body, including difficulty breathing and damage to the lungs, kidneys, heart, brain and vascular system. The anti-inflammatory actions of statins "cool the process" so that the disease is not as severe, Dr. Crimi said.

One in four Americans over the age of 40 take statins to lower their cholesterol and reduce their risk of heart attack, stroke and other cardiovascular diseases, according to the American Heart Association,

making them one of the most commonly prescribed drugs.

"This research illustrates the importance of evaluating medications that could be repurposed to help patients in ways other than their intended use," said Dr. Crimi. "Our results suggest statins could be an additional cost-effective solution against COVID-19 [disease](#) severity and should be studied further."

Provided by American Society of Anesthesiologists

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