

COVID-19 Doubles Risk of Heart Attack, Stroke and Death



COVID-19 has been linked to an increased risk of major adverse cardiac events (MACE), including heart attacks, strokes, and all-cause mortality. However, the long-term duration and underlying factors contributing to this elevated cardiovascular risk after a COVID-19 infection remain unclear.

A recent study led by Cleveland Clinic and the University of Southern California has revealed that a history of COVID-19 can double the risk of heart attack, stroke, or death.

The research found that individuals who had contracted any form of COVID-19 were twice as likely to suffer a major cardiac event—such as heart attack, stroke, or death—for up to three years after their diagnosis. The risk was especially pronounced for those hospitalised with the virus and a stronger determinant than previous history of heart disease. The study also uncovered that individuals with blood types other than O (such as A, B, or AB) faced double the risk of cardiovascular complications post-COVID compared to those with type O blood.

Researchers analysed data from the UK Biobank, examining 10,005 people who had COVID-19 and 217,730 who did not, between February and December 2020.

Regardless of disease severity, COVID-19 patients had a significantly higher risk of MACE. This risk was even greater among those hospitalised for COVID-19. Hospitalisation for COVID-19 carried a similar risk to that of coronary artery disease. Individuals with no prior cardiovascular history who were hospitalised for COVID-19 had a higher MACE risk compared to patients with existing cardiovascular disease but no COVID-19. A genetic interaction was found between the ABO blood type and COVID-19 hospitalisation. Patients with non-O blood types had a significantly increased risk of thrombotic events, while those with blood type O did not.

Study findings highlight a significant global health concern, given that over a billion people have been infected with COVID-19 worldwide. The study suggests an anticipated rise in cardiovascular disease rates globally due to COVID-19.

While certain genetic factors are already known to increase the risk of heart disease and COVID-19 infection, the study's genetic analysis found no link between these variants and the increased cardiovascular risks seen post-COVID. Instead, blood type emerged as a key factor, with individuals having blood types A, B, or AB not only more susceptible to COVID-19 infection but also at greater risk for adverse cardiac events afterward.

These findings demonstrate that COVID-19 is primarily a respiratory infection but has widespread health implications. There is thus a need to consider COVID-19 history when developing cardiovascular prevention strategies.

Study authors also note the potential clinical implications, particularly given that 60% of the global population has a non-O blood type. The study raises important questions about whether more aggressive cardiovascular risk reduction should be considered based on an individual's genetic makeup. The authors stressed that the long-term cardiovascular risks associated with COVID-19 continue to be a significant public health issue, calling for further research into the underlying mechanisms.

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