

Convenient at-home test identifies at-risk individuals with inadequate immunity to COVID-19

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By late in the pandemic, more than 96% of individuals in the U.S. ages 16 and older had COVID-19 antibodies from infection or vaccination.

However, immunity from the virus tends to wane over time. Uptake of the boosters has been quite low, meaning that over time the current high levels of protection will dissipate.

During the COVID-19 pandemic, at-home antigen tests became widely accepted for detecting infection. In a new joint study by the George Washington University, the University of North Carolina, and others, researchers have looked into the benefits of using at-home antibody tests to detect immunity and to make decisions about the need for a COVID-19 booster shot—something that may be of particular relevance for those at high risk for poor outcomes from COVID infection.

The [study](#), "COVID-19 Point-of-Care Tests can Identify Low-Antibody Individuals: In-depth Immunoanalysis of Boosting Benefits in a Healthy Cohort," was published June 12 in *Science Advances*.

In the study, the researchers found that a negative result on an at-home antibody [test](#) indicates inadequate immunity as reflected in an extensive and sophisticated battery of COVID immune tests performed by highly specialized academic/industry labs at various centers around the country.

"Our research suggests that an antibody test taken at home will allow at-risk individuals to conveniently identify inadequate immunity to COVID-19—in a world in which population immunity is declining, " said co-author John Lafleur, professor of emergency management at the George Washington University School of Medicine and Health Sciences. "This can be important information for those who are considering booster vaccination, but question whether or not it is needed. In addition, as with home antigen testing, home antibody tests may be another useful tool in any future viral pandemic."

More information: Michael Mallory et al, COVID-19 Point-of-Care Tests Can Identify Low-antibody Individuals: In-Depth Immunoanalysis of Boosting Benefits in a Healthy Cohort., *Science Advances* (2024).

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