

Moderna COVID-19 vaccine found to be still effective after six months

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A team of researchers at the U.S. National Institutes of Health, working with colleagues from Emory University School of Medicine, Emmes Company, Moderna, Inc. and Kaiser Permanente Washington Health

Research Institute, has found via testing, that the Moderna vaccine is still effective against COVID-19 six months after people are fully vaccinated. Their paper has been published in the journal *Science*.

Prior research has shown that Pfizer's and Johnson & Johnson's vaccines were effective against COVID-19 for at least six months. In this new effort, the researchers sought to find out if the same is true for the Moderna vaccine.

To determine the efficacy of the Moderna vaccine over time, the researchers enlisted the assistance of 24 fully vaccinated volunteers. Each was asked to give [blood samples](#) four weeks after being inoculated and then three more times over the course of six months.

The researchers tested each of the samples against all of the most common variants—the B.1.351 (Beta), B.1.1.7 (Alpha), B.1.429 (Epsilon), P.1 (Gamma), B.1.617.2 (Delta) and B.1.526 (Iota). They found that, with the exception of B.1.351 (Beta), the [vaccine](#) was very effective against COVID-19 variants as indicated by a full antibody response. They noted also that after six months, 96% of the samples tested showed a full response to the B.1.617.2 (Delta) variant, which is of course, the one that is responsible for most new infections in the U.S. A troubling result, however, was that only half the samples tested instigated a full antibody response against the Beta, or B.1.351 variant, which was first seen in South Africa.

The researchers also noted that an antibody response is not the only part of the immune system responsible for protecting people against viral attacks—B and T cells are also part of the process, though they tend to take longer to get involved. On the plus side, they may provide some protection for people as antibody response fades. The researchers also note that during their study they found that antibody response in older people diminished only slightly. They conclude by suggesting that studies

such as theirs will have to be done periodically as the future unfolds to find out how long the vaccines provide protection.

More information: Amarendra Pegu et al, Durability of mRNA-1273 vaccine–induced antibodies against SARS-CoV-2 variants, *Science* (2021). [DOI: 10.1126/science.abj4176](https://doi.org/10.1126/science.abj4176)

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