

# SARS-COV-2 Vaccines Immunological Impact

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## Abstract

The immune responses to SARS-CoV-2 are herein detailed to clarify the innate immunity protective effects in a large fraction of individuals exposed to the infection, and the drawbacks of the interference of the acquired immunity cytotoxic T cells and antibody-dependent natural killer cell-mediated cytotoxicity arms. Very precisely, the available vaccines based on full-length spike glycoprotein in a mRNA or DNA-based construct, or whole virus potentially lead to generation of these immunologically damaging effectors, especially following exposure to the pathogen. Conversely, a vaccine exclusively based on spike glycoprotein subunit 1 in a protein form can protect against the life-threatening virus infection and never lead to adverse side effects.

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