

Nationwide study shows BNT162b2 mRNA vaccine is effective

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The BNT162b2 mRNA vaccine is effective for COVID-19-related

outcomes, including hospitalization, severe illness, and death, in a nationwide, mass vaccination setting, according to a study published online Feb. 24 in the *New England Journal of Medicine*.

Noa Dagan, M.D., from Clalit Health Services in Tel Aviv, Israel, and colleagues examined the [effectiveness](#) of the BNT162b2 mRNA vaccine using data from Israel's largest health care organization. All 596,618 persons who were newly vaccinated during Dec. 20, 2020, to Feb. 1, 2021, were matched to 596,618 unvaccinated controls. Study outcomes included documented infection with severe acute respiratory syndrome coronavirus 2, symptomatic COVID-19, COVID-19-related hospitalization, [severe illness](#), and death.

The researchers found that at 14 through 20 days after the first dose and at seven or more days after the second dose, the estimated [vaccine effectiveness](#) was 46 and 92 percent, respectively, for documented infection; 57 and 94 percent for symptomatic COVID-19; 74 and 87 percent for hospitalization; and 62 and 92 percent for severe disease. For preventing death from COVID-19, the estimated effectiveness was 72 percent for days 14 through 20 after the first dose. Across [age groups](#), the estimated effectiveness was consistent for documented infection and symptomatic COVID-19 in specific subpopulations, with potentially slightly lower effectiveness in those with multiple coexisting conditions.

"This study estimates a high effectiveness of the BNT162b2 vaccine for preventing symptomatic COVID-19 in a noncontrolled setting," the authors write. "These results strengthen the expectation that newly approved vaccines can help to mitigate the profound global effects of the COVID-19 pandemic."

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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