

# Fourth dose of BNT162b2 prevents severe COVID-19 in nursing home residents

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For long-term care facility (LTCF) residents, a fourth dose of

BNT162b2 COVID-19 vaccine confers substantial protection against COVID-19 hospitalization and deaths during an omicron surge, according to a study published online June 23 in *JAMA Internal Medicine*.

Khitam Muhsen, Ph.D., from Tel Aviv University in Israel, and colleagues conducted a prospective study in Israel between Jan. 10 and March 31, 2022, including LTCF residents aged 60 years and older. Data were included for 43,775 residents, of whom 55.0 and 45.0 percent received the fourth and [third dose](#) (four months previously or earlier), respectively. Participants were followed for a median of 73 days.

The researchers found that severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection was detected among 4,058 fourth-dose recipients and 4,370 third-dose recipients at more than seven days postvaccination with the fourth dose (cumulative incidence, 17.6 versus 24.9 percent). The corresponding incidences of hospitalizations for mild-to-moderate COVID-19, severe illness, and mortality were 0.9 versus 2.8 percent; 0.5 versus 1.5 percent; and 0.2 versus 0.5 percent. Adjusted protections of 34, 64, and 67 percent were seen against overall infection, hospitalizations for mild-to-moderate illness, and [severe illness](#), respectively, and 72 percent against death.

"The results of this cohort study suggest a strong association between receipt of a fourth BNT162b2 dose with protection against COVID-19-related hospitalizations, severe disease, and deaths during the omicron surge," the authors write.

One author disclosed financial ties to [pharmaceutical companies](#), including Pfizer.

**More information:** Khitam Muhsen et al, Association of Receipt of the Fourth BNT162b2 Dose With Omicron Infection and COVID-19

Hospitalizations Among Residents of Long-term Care Facilities, *JAMA Internal Medicine* (2022). [DOI: 10.1001/jamainternmed.2022.2658](https://doi.org/10.1001/jamainternmed.2022.2658)

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