

Study supports safety of COVID-19 vaccines in people with a history of severe allergic reactions

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New research addresses ongoing concerns regarding risks of allergic reactions after receiving mRNA COVID-19 vaccines, particularly for

individuals with a history of severe allergic reactions. The *JAMA Network Open* study of employee vaccinations within the Mass General Brigham health care system revealed that although people with such a history reported more allergic symptoms after vaccination, nearly all of them were able to become fully vaccinated.

In the study of 52,998 health care employees, 474 (0.9%) reported a history of severe [allergic reactions](#) to medications, vaccines or allergens. Survey results showed that 11.6% of employees with this history reported allergic reactions after receiving dose 1 or 2 of a COVID-19 mRNA vaccine, compared with 4.7% of employees without this history. High-risk [allergy](#) history was associated with a 2.5-times increased relative risk of allergic reactions, with the highest risks for hives and angioedema. However, despite these symptoms, 5,1706 employees (97.6%) received 2 doses of an mRNA COVID-19 vaccine.

"The results of this study can help guide expectations for patients with high-risk allergy histories. Symptoms such as hives and swelling may occur, particularly with the first vaccine dose, but most reported [allergic symptoms](#) did not impede completion of the two-dose mRNA vaccine series," says lead author Lily Li, MD, allergy faculty in the Division of Allergy and Clinical Immunology at Brigham and Women's Hospital.

The findings provide reassurance regarding the safety of mRNA COVID-19 vaccination in individuals regardless of allergy history. "We hope these data will help inform ongoing conversations with patients who are hesitant to receive COVID-19 vaccination due to allergy concerns," says senior author author Kimberly G. Blumenthal, MD, MSc, co-director of the Clinical Epidemiology Program within Massachusetts General Hospital's Division of Rheumatology, Allergy and Immunology. "At our institutions, nearly all individuals with and without a history of high-risk allergy were able to complete the two-dose [vaccine](#) series."

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More information: Association of Self-reported High-Risk Allergy History With Allergy Symptoms After COVID-19 Vaccination, *JAMA Network Open* (2021). [DOI: 10.1001/jamanetworkopen.2021.31034](https://doi.org/10.1001/jamanetworkopen.2021.31034)

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