

# Severe allergic reaction extremely rare with Pfizer COVID vaccine: study

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(HealthDay)—Despite scattered media reports of severe allergic reactions to the Pfizer COVID-19 vaccine, a detailed analysis shows that such incidents are very rare, striking just 11 people for every million doses given.

The study, compiled by researchers at the U.S. Centers for Disease Control and Prevention, also found that episodes of severe allergic reaction—called anaphylaxis—typically occurred within minutes of receiving the shot and were also quickly resolved using a shot of epinephrine (such as the EpiPen).

None of the episodes proved fatal, said researchers reporting Jan. 21 in the journal *JAMA Insights*.

The bottom line, according to one expert unconnected to the study, is that people have far more to fear from COVID-19 than they do from the Pfizer vaccine.

"Despite the occurrence of allergic reactions, the fact that we are in the midst of a pandemic and this vaccine is lifesaving still keeps the risk-benefit ratio on the side of the vaccine—by a lot," said infectious disease expert Dr. Amesh Adalja. He's senior scholar at Johns Hopkins Center for Health Security in Baltimore.

In the new study, a team led by CDC researcher Dr. Tom Shimabukuro tracked data on reactions to the Pfizer vaccine soon after it was approved in December. During the period from Dec. 14 to Dec. 23, about 1.9 million first doses of the two-dose vaccine were dispensed into the arms of Americans.

According to data from the federal Vaccine Adverse Event Reporting System (VAERS), just 21 reports of anaphylaxis in Pfizer vaccine recipients was reported during that time, working out to 11.1 cases per every 1 million shots given.

Some of these very rare cases did prove serious: Four of the patients had such severe anaphylaxis that they required hospitalization (three of them in intensive care), and 17 needed emergency department care. However, none of the events proved fatal, and by the time of the VAERS report, 20 of the 21 cases had already recovered and been sent home.

Most of the severe reactions set in quickly—a big reason why COVID-19 vaccine recipients are being asked to wait for a short period of time at the locales where they get their shots. For the 21 cases outlined in the new study, the average time of anaphylaxis onset was just 13 minutes. Rash, hives, swelling and throat constriction were the most [common symptoms](#).

And almost all of the cases—17 out of 21—involved people who had some history of allergies or allergic reactions to things such as drugs, food or bee stings, Shimabukuro's group said.

Besides the life-threatening forms of allergic reaction, the VAERS report also found 83 cases (out of 1.9 million doses given) of milder [allergic reactions](#)—symptoms such as rash, itchy skin, scratchy throats and "mild respiratory symptoms," the CDC researchers said.

Earlier this month, a leading group of allergy specialists offered up guidance on the new COVID-19 vaccines.

While reactions to vaccines are extremely rare, the American College of Allergy, Asthma and Immunology (ACAAI) said anyone being vaccinated should be asked if they have a history of a severe allergic reaction to an injectable medication.

If the answer is yes, the individual should be referred to a board-certified allergist for evaluation before getting the COVID-19 vaccination, the ACAAI said in a news release.

The academy also said COVID-19 vaccines should be given in a health care facility where an allergic reaction can be treated. Patients must be monitored for at least 15 to 30 minutes after injection for any adverse reaction.

COVID-19 vaccines should not be given to people with a known history of severe allergic reaction to any component of the [vaccine](#).

That sounds like good advice, Adalja said. "Those who have had reactions to injectables in the past or to ingredients included in these vaccines should discuss the current COVID vaccines with their physicians if they are concerned," he said.

**More information:** Find out more about the ACAAI guidance [here](#).

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