



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™



COVID-19

Selected Adverse Events Reported after COVID-19 Vaccination


Updated May 18, 2021

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Safety of COVID-19 Vaccines

Results from safety monitoring efforts are reassuring. Some people have no side effects. Many people have reported only mild side effects after COVID-19 vaccination.

What you need to know

- COVID-19 vaccines are **safe and effective**.
- Millions of people in the United States have received COVID-19 vaccines under the most intense safety monitoring in U.S. history.
- CDC recommends you get a COVID-19 vaccine as soon as you can.
- Adverse events described on this page have been reported to the [Vaccine Adverse Event Reporting System \(VAERS\)](#) .
- VAERS accepts reports of any adverse event following vaccination, even if it is not clear the vaccine caused the problem.
- After a temporary pause to investigate thrombosis with thrombocytopenia syndrome (TTS) following vaccination with Johnson & Johnson's Janssen (J&J/Janssen) COVID-19 Vaccine, the data show that TTS is a rare adverse event. The known and potential benefits of the J&J/Janssen vaccine outweigh its known and potential risks.
- CDC, the U.S. Food and Drug Administration (FDA), and other federal agencies will continue to monitor the safety of COVID-19 vaccines.

Anaphylaxis after COVID-19 vaccination

Severe allergic reactions, including [anaphylaxis](#), can occur after any vaccination.

Anaphylaxis after COVID-19 vaccination is rare. If this occurs, vaccination providers can effectively and immediately treat the reaction.

CDC and FDA scientists have evaluated reports from people who experienced a type of severe allergic reaction—anaphylaxis—after getting a COVID-19 vaccine. Anaphylaxis after COVID-19 vaccination is **rare** and occurred in approximately 2 to 5 people per million vaccinated in the United States based on events reported to VAERS. This kind of allergic reaction almost always occurs within 30 minutes after vaccination. After you get a COVID-19 vaccine, you will be asked to stay for 15–30 minutes, so you can be observed in case you have a severe allergic reaction and provided treatment in the rare case it is needed. Fortunately, vaccination providers have medicines available to effectively and immediately treat patients who experience anaphylaxis following vaccination. [Learn more about COVID-19 vaccines and allergic reactions.](#)

Thrombosis with thrombocytopenia syndrome (TTS) after J&J/Janssen COVID-19 vaccination

Safety monitoring of the J&J/Janssen vaccine suggests a rare risk of a serious adverse event called “thrombosis with thrombocytopenia syndrome” (TTS), which involves blood clots with low platelets. Platelets are a type of blood cell that help blood clot.

- A review of available data shows that the J&J/Janssen COVID-19 Vaccine’s known and potential benefits outweigh its known and potential risks.
- Nearly all reports of this serious condition have been in adult women younger than 50 years old.
- CDC and FDA recommend use of the J&J/Janssen COVID-19 Vaccine resume in the United States after a temporary pause.
- Women younger than 50 years old especially should be aware of the rare but increased risk of this adverse event. There are other COVID-19 vaccine options available for which this risk has not been seen.

As of May 18, 2021, more than 9.6 million doses of the J&J/Janssen COVID-19 Vaccine have been given in the United States. Through continuous safety monitoring, CDC and FDA identified 30 confirmed reports of people who got the J&J/Janssen COVID-19 Vaccine and later developed TTS.

For all women, this is a rare adverse event. For women 50 years and older and men of all ages, this adverse event is even more rare.

The review of TTS reports and all available data at this time shows that the known and potential benefits of the J&J/Janssen COVID-19 Vaccine outweigh its known and potential risks for those recommended to receive it. However, women younger than 50 years old especially should be aware of the rare but increased risk of TTS. There are other COVID-19 vaccine options available for which this risk has not been seen. [Learn more about J&J/Janssen COVID-19 Vaccine and blood clots with low platelets.](#)


Reports of death after COVID-19 vaccination

CDC uses the Vaccine Adverse Event Reporting System (VAERS) to closely monitor reports of death following COVID-19 vaccination.

- FDA requires healthcare providers to report any death after COVID-19 vaccination to VAERS.
- Reports to VAERS of death following vaccination do not necessarily mean the vaccine caused the death.
- CDC follows up on any report of death to request additional information to learn more about what occurred and to determine whether the death was a result of the vaccine or was unrelated.
- CDC, FDA, and other federal agencies will continue to monitor the safety of COVID-19 vaccines.

Over 273 million doses of COVID-19 vaccines were administered in the United States from December 14, 2020, through May 17, 2021. During this time, VAERS received 4,647 reports of death (0.0017%) among people who received a COVID-19 vaccine. CDC and FDA physicians review each case report of death as soon as notified and CDC requests medical records to further assess reports. **A review of available clinical information, including death certificates, autopsy, and medical records has not established a causal link to COVID-19 vaccines. However, recent reports indicate a plausible causal relationship between the J&J/Janssen COVID-19 Vaccine and a rare and serious adverse event—blood clots with low platelets—which has caused deaths.** [Get the latest safety information on the J&J/Janssen vaccine.](#) CDC and FDA will continue to investigate reports of adverse events, including deaths, reported to VAERS.

Have you experienced a side effect following COVID-19 vaccination?

You can [report it to VAERS](#) .

More Information

[Advisory Committee on Immunization Practices \(ACIP\): COVID-19 vaccine safety update—January 2021 \(slide deck\) pdf icon](#)  [1.19 MB, 56 Pages]

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