CDC   Centers for Disease
       Control and Prevention

COVID-19

Safety of COVID-19 Vaccines

Updated Sept. 12, 2023

COVID-19 vaccine recommendations have been updated as of September 12. This page will be updated to align with the new recommendations. Learn more.

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 US history.
- CDC recommends everyone stay up to date with COVID-19 vaccines for their age group:
    - Children and teens ages 6 months–17 years
    - Adults ages 18 years and older

Hundreds of Millions of People Have Safely Received a COVID-19 Vaccine

More than 672 million doses of COVID-19 vaccine have been given in the United States from December 14, 2020, through March 1, 2023. To view the current total number of COVID-19 vaccinations that have been administered in the United States, please visit the CDC COVID Data Tracker.

COVID-19 vaccines are **safe and effective**. COVID-19 vaccines were evaluated in tens of thousands of participants in clinical trials. The vaccines met the Food and Drug Administration's (FDA's) rigorous scientific standards for safety, effectiveness, and manufacturing quality needed to support emergency use authorization (EUA). Learn more about EUAs in this video. ⧉

The Pfizer-BioNTech, Moderna, and Johnson & Johnson/Janssen and Novavax COVID-19 vaccines will continue to undergo the most intensive safety monitoring in US history. This monitoring includes using both established and new safety monitoring systems to make sure that COVID-19 vaccines are safe.

Common Side Effects

Some people have side effects after getting their COVID-19 vaccine, while others might have no side effects. Side effects may affect the ability to do daily activities, but they should go away within a few days. Learn more about common side effects after COVID-19 vaccination.

Adverse Events (Serious Safety Problems) Are Rare

In rare cases, people have experienced serious health events after COVID-19 vaccination. Any health problem that happens after vaccination is considered an adverse event. An adverse event can be caused by the vaccine or can be caused by a coincidental event not related to the vaccine, such as an unrelated fever, that happened following vaccination.

To date, the systems in place to monitor the safety of these vaccines have found four serious types of adverse events following COVID-19 vaccination, with evidence that suggests, although rare, a link to certain types of COVID-19 vaccinations that were administered. They are:

Anaphylaxis

Anaphylaxis is a severe type of allergic reaction with symptoms such as hives, difficulty breathing, low blood pressure, or significant swelling of the tongue or lips. **Anaphylaxis after COVID-19 vaccination is rare.** Learn more about COVID-19 vaccines and allergic reactions, including anaphylaxis.

Thrombosis with Thrombocytopenia Syndrome (TTS)

Thrombosis with thrombocytopenia syndrome (TTS) is a rare but serious adverse event that causes blood clots or issues with clotting. **TTS after COVID-19 vaccination is rare.** Learn more about COVID-19 vaccines and adverse events, including TTS.

Myocarditis and Pericarditis

Myocarditis is inflammation of the heart muscle, and pericarditis is inflammation of the outer lining of the heart. **Myocarditis and pericarditis after COVID-19 vaccination are rare.** Learn more about COVID-19 vaccines and adverse events, including myocarditis and pericarditis.

Guillain-Barré Syndrome (GBS)

Guillain-Barré Syndrome (GBS) is a rare disorder where the body's immune system damages nerve cells, causing muscle weakness and sometimes paralysis. **GBS after COVID-19 vaccination is rare.** Learn more about COVID-19 vaccines and adverse events, including GBS.

Reports of Death Are Rare

Reports of death after COVID-19 vaccination are rare. FDA requires healthcare providers to report any death after COVID-19 vaccination to the Vaccine Adverse Event Reporting System (VAERS) ⬀ , even if it's unclear whether the vaccine was the cause. **Reports of adverse events to VAERS following vaccination, including deaths, do not necessarily mean that a vaccine caused a health problem.** CDC and FDA review reports of death following COVID-19 vaccination and update information as it becomes available. Learn more about adverse events, including reports of death, after COVID-19 vaccination.

Benefits of Vaccination Outweigh the Risks

Serious side effects that could cause a long-term health problem are extremely rare following any vaccination, including COVID-19 vaccination. The benefits of COVID-19 vaccination outweigh the known and potential risks.

CDC continues to closely monitor the safety of COVID-19 vaccines. Everyone who receives a COVID-19 vaccine can also participate in safety monitoring by enrolling themselves -or their children or dependents 6 months and older in a smartphone-based system called v-safe and completing health check-ins after COVID-19 vaccination.

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

Please report it to VAERS ⬈ . In addition, enrolling yourself or your dependent in v-safe allows you to easily report to CDC how you are feeling after getting a COVID-19 vaccine.

More Information
ACIP COVID-19 Vaccines Safety Technical Sub-Group (VaST)
COVID-19 Vaccine Safety Publications
VaST Subgroup Technical Report
v-safe After Vaccination Health Checker
Vaccine Adverse Event Reporting System (VAERS)

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