

What heart and stroke patients should know about COVID-19 vaccine boosters

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COVID-19 vaccines offer protection against life-threatening disease caused by the coronavirus to people with heart disease and stroke, and a booster dose could bolster that protection, health experts said.

The Centers for Disease Control and Prevention, which sets policy on vaccine use, [recommended Pfizer booster vaccines](#) for several groups last week. People 65 and older; residents in long-term care settings; and people 50 and older with [underlying medical conditions](#) should receive a booster at least six months after their initial Pfizer vaccine doses, the CDC said.

People 18 to 49 with underlying [medical conditions](#) and adults 18 to 64 at increased risk for COVID-19 exposure and transmission [because of their jobs or where they reside](#), such as a homeless shelter, may receive a Pfizer booster at least six months after their initial Pfizer vaccine doses.

CDC Director Dr. Rochelle P. Walensky issued the recommendations two days after the [Food and Drug Administration authorized a Pfizer booster](#) on Sept. 22. Her decision aligned with the FDA but allowed for broader use than a [CDC advisory panel endorsed](#).

The FDA and CDC actions apply only to the Pfizer vaccine. Regulators are reviewing the data from Moderna's request to authorize a booster, and Johnson & Johnson's booster is in advanced trials.

In August, the FDA authorized a third dose of the Pfizer and Moderna vaccines for [immunocompromised people](#). That includes heart transplant recipients, who must take drugs that suppress their immune system.

Data shows COVID-19 vaccines can become less effective at preventing infection over time. But the vaccines are still effective in [preventing serious illness and death](#) after infection.

It's important to keep in mind that no vaccine is 100% effective, said Katherine E. Di Palo, a clinical pharmacy specialist and assistant professor of medicine at the Albert Einstein College of Medicine in New York. "Certain viruses require vaccine boosters or annual shots, like the

flu, to continue to provide protection and prevent serious complications."

Vaccines work initially by safely provoking the body's immune response, which generates swarms of antibodies to attack an invading virus. Eventually, that antibody response calms down.

But the body also has cells that remember what invading viruses looked like, said Dr. Donald Lloyd-Jones, president of the American Heart Association.

"Those [memory cells](#) can rapidly ramp up the [immune system](#) if we're re-exposed to a virus or to a virus against which we've been vaccinated," said Lloyd-Jones, a cardiologist, epidemiologist and chair of preventive medicine at Northwestern University Feinberg School of Medicine in Chicago. The response from those memory cells is what helps protect against severe cases even if someone contracts the disease.

A booster dose can help increase the number of those memory cells while also reviving levels of antibodies.

In authorizing the Pfizer booster, the FDA reviewed data from Israel showing a third dose provided about 10 times the protection against confirmed infection and severe disease compared with people who had two doses. Side effects were similar to what was reported with the first two doses and included fatigue, headache and redness at the injection site.

For now, Di Palo said, people getting a booster will need to stick with whatever brand of vaccine they initially received. "We currently do not have evidence that says it is OK to mix and match," she said.

Federal regulators are continuing to monitor the COVID-19 vaccine's connection to rare cases of myocarditis or another type of heart

inflammation called pericarditis. Those potential [side effects](#) should not dissuade people from getting vaccinated, Di Palo and Lloyd-Jones said.

First, those cases are "extremely rare," Di Palo said. When they do occur, they tend to be mild and people often recover on their own or with minimal treatment.

That contrasts with the effects of COVID-19. In the unvaccinated, the disease can require intensive care in a hospital and remains potentially fatal.

That's why the most important advice for people with [heart disease](#) and stroke is simple.

"If you are not yet vaccinated, you are at significant risk from the delta variant," Lloyd-Jones said. "Get vaccinated today. Do not wait."

People with stroke and heart conditions such as coronary artery disease, heart failure or cardiomyopathy (inflammation of the heart muscle) are at higher risk for severe illness from COVID-19.

Underlying factors that increase the risk for heart disease and stroke, such as obesity, diabetes, [high blood pressure](#) and smoking, also can increase the risk for becoming severely ill from COVID-19, Lloyd-Jones said.

The authorization of a Pfizer [booster](#) comes just ahead of flu season. The CDC says September and October are prime time for getting a flu shot and that [getting one at the same time](#) as a COVID-19 [vaccine](#) is safe.

Flu shots have been shown to reduce the risk of death in people with heart disease. They could play an especially important role this year,

Lloyd-Jones said.

"It's an important part of people reconnecting with the health system, getting with their doctor, revisiting their numbers, making sure their blood pressure is under control, their diabetes is in control, they have a plan for getting rid of those pounds they gained during the pandemic," he said.

The sometimes-shifting advice on vaccines can be difficult to follow, Lloyd-Jones acknowledged. "But in truth, this is the process of science."

The latest reliable information can be found at [cdc.gov](https://www.cdc.gov) or [getvaccineanswers.org](https://www.getvaccineanswers.org). And when the news gets confusing, personalized information is available from a patient's own doctor, nurse or other health care professional, Di Palo said.

"With every headline that comes out, if you have questions, talk to your team," she said. The information is not "one-size-fits-all. So, talking to your doctors is really, really critical."

Provided by American Heart Association

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