Second COVID-19 vaccine booster dose: Answering patients’ questions

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The newest wave of SARS-CoV-2 infections, reinfections and breakthrough infections are fueled by the more transmissible COVID-19 Omicron variant and its subvariants. And now, with the BA.5 subvariant comprising a majority of cases in the United States, and reported COVID-19 cases and hospitalizations rising, there’s a growing need for more people to not only get vaccinated but boosted too. Yet confusion remains around the second COVID-19 booster dose.

Here are some questions patients might have about second COVID-19 vaccine booster dose, along with the answers that physicians should be ready to share.

Why are booster doses needed?

COVID-19 vaccines are working well to prevent severe illness, hospitalization and death, but the latest data show that booster doses significantly increase protection against the Omicron variant. That is why a booster dose—or in some cases two—are recommended.

In the face of the Omicron variant, the Centers for Disease Control and Prevention (CDC) found that, compared with people who have received their primary series and two booster doses, unvaccinated adults 50–64 years old were 45 times more likely to be hospitalized from COVID-19. Unvaccinated seniors were 51 times likelier to land in the hospital.

Research published in Morbidity and Mortality Weekly Report also shows that during both Delta- and Omicron-predominant periods, receipt of a third vaccine dose of a mRNA vaccine was highly effective at preventing COVID-19-associated emergency department and urgent care encounters as well as preventing hospitalization.

Meanwhile, a JAMA study shows that receipt of three doses of a mRNA COVID-19 vaccine—compared with being unvaccinated or having received two doses—was associated with protection against both the Omicron and Delta variants.
Who is eligible for a second booster dose?

A second booster dose of either the Pfizer-BioNTech or Moderna COVID-19 mRNA vaccines are recommended for people over 50. A second booster is also recommended for certain people 12 years or older who are moderately or severely immunocompromised.

Additionally, people 18 through 49 years old who got a Johnson & Johnson COVID-19 vaccine for both their primary dose and booster can choose to get a second booster of an mRNA vaccine.

Discover what doctors wish patients knew about COVID-19 vaccine boosters.

How soon can you get a second booster dose?

For people over 50 and with compromised immune systems, a second booster dose should be administered four months after receiving an initial booster dose. And adults who got the Johnson & Johnson vaccine for their primary series and booster dose at least four months ago, should get a second booster dose of either Pfizer-BioNTech or Moderna mRNA COVID-19 vaccines.

Can I mix and match vaccines for my booster dose?

Through the Food and Drug Administration’s authorization and the CDC’s recommendation, heterologous boosting—aka “mixing and matching”—is allowed with a single dose of any of the authorized COVID-19 vaccine boosters for people 18 years or older. For example, those who got Johnson & Johnson’s one-dose series can receive a booster shot from Moderna or Pfizer-BioNTech.

Physicians will look at the clinical considerations, including rare adverse events, and perform an individual benefit-risk assessment to inform patients about which booster vaccine to use. Mixing and matching may only be considered for the booster dose.

Which vaccine booster should I get?

The CDC recommends individuals get an mRNA COVID-19 vaccine over Johnson & Johnson’s COVID-19 vaccine.
This came after the Food and Drug Administration revised the fact sheets for J&J COVID-19 vaccine physicians and other health professionals (PDF) and patients (PDF), which now include a contraindication for people with a history of thrombosis with thrombocytopenia (TTS) following the J&J vaccine. Women 30–49 years old are at highest risk, with one in 100,000 developing TTS after J&J vaccination.

**What is the difference between an additional dose and a booster dose?**

An additional dose is often administered to people with moderately to severely compromised immune systems to improve their response to their initial vaccine series. A COVID-19 booster dose is given when a person has completed their primary vaccine series and protection against SARS-CoV-2 has decreased over time.

That is why patients with compromised immune systems are receiving a third dose of a COVID-19 vaccine rather than a booster. This can be either Pfizer or Moderna mRNA COVID-19 vaccines. In addition to a third dose, these individuals may receive two booster shots.

**Is it better to get the second booster in the summer or fall?**

The FDA has asked Pfizer-BioNTech and Moderna to develop bivalent vaccines that are designed to target the original coronavirus strain, as well as the BA.4 and BA.5 subvariants. This is because it is critical that there are safe and effective vaccine boosters that can provide protection against circulating and emerging variants. The FDA hopes the updated vaccines will be available in October. However, if you are eligible for a booster now, you should get a second booster dose and not wait for the bivalent vaccines to be made available.

This means people older than 50 and anyone over 12 years old who are immunocompromised should get a second booster sooner rather than later. Those who were recently infected with an Omicron subvariant, may choose to wait 90 days before getting a second booster.

It is hard to say what SARS-CoV-2 will do in the fall, which means getting a COVID-19 vaccine booster as soon as someone is eligible is key.


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How can I talk to my parents and grandparents about getting a COVID-19 booster?

For some, it can be hard to talk with relatives who may have concerns or questions about getting vaccinated, especially parents and grandparents. However, older adults are at a greater risk of being hospitalized or dying of COVID-19 if they catch the disease.

Everyone’s motivations for skipping the vaccine or booster doses are different. That is why it can be helpful to sit down and talk with loved ones. This is where it is important to acknowledge their concerns, share facts and recommend they speak with their physician to learn more.

Discover how to have crucial conversations with vaccine-hesitant patients.

If I haven’t had a first booster dose, is it too late?

No, it is never too late to get a booster, says the CDC. For those who have not yet received their first booster dose, they should go out and get it. This is because the evidence is strong, showing that a booster dose helps to prevent more severe outcomes with the Omicron variant and its subvariants.

I’m fully vaccinated, so why do I need a booster?

Immunity from vaccination does wane over time, increasing your risk of infection or severe illness. But a booster dose dramatically increases a person’s immune response and raised their level of protection against Omicron subvariants. The booster doses help to restore some protection that is lost as time passes.

In an episode of the “AMA COVID-19 Update,” Andrea Garcia, MPH, discusses second boosters.

If I still catch SARS-CoV-2, what’s the point of a booster?

Several Omicron subvariants are circulating around the United States. These subvariants are very transmissible and can overcome immunity. But people who are boosted have shorter periods of being infectious, which can protect other people around them. The booster dose also helps protect against severe outcomes of COVID-19 such as hospitalization or death.
What side effects can I expect from a COVID-19 vaccine booster?

After the second booster shot, side effects may be more intense than previous doses, according to the CDC. Side effects that have been reported after getting a booster shot are similar to those after the two-dose or single-dose primary shots. The most reported side effects include fever, headache, fatigue and pain at the injection site.

Overall, most side effects were mild to moderate. But these side effects are normal and are signs that the body is building protection and should go away within a few days, according to the CDC.

The AMA has developed frequently-asked-questions documents on COVID-19 vaccination covering safety, allocation and distribution, administration and more. There are two FAQs, one designed to answer patients’ questions (PDF), and another to address physicians’ COVID-19 vaccine questions (PDF).

Find out more with the AMA about COVID-19 and vaccine development.