Updated COVID-19 Vaccine Booster Doses

September 9, 2022

What's new? Updated boosters against Omicron!!

On Wednesday, August 31, 2022, the FDA authorized two Omicron (bivalent) vaccines, Moderna and Pfizer, to be used as booster doses to help protect against the Omicron variants of the virus that causes COVID-19. The Advisory Committee on Immunization Practices (ACIP), which makes recommendations to the Centers for Disease Control and Prevention (CDC) for the use of immunizations, voted on Thursday, September 1, 2022 to recommend the use of the Pfizer Omicron (bivalent) vaccine for people **12 years and older** and voted to recommend the use of the Moderna Omicron (bivalent) vaccine for those ages **18 years and older**. These new recommendations **replace all prior booster recommendations** for people 12 years and older. All people 12 years and older shoulder receive a booster against the Omicron variants, even if they received one or more booster doses prior to September 2, 2022

Per Dr. Walensky, CDC Director, *"The updated COVID-19 boosters are formulated to better protect against the most recently circulating COVID-19 variant. They can help restore protection that has waned since previous vaccination and were designed to provide broader protection against newer variants. This recommendation followed a comprehensive scientific evaluation and robust scientific discussion. If you are eligible, there is no bad time to get your COVID-19 booster, and I strongly encourage you to receive it."*

What are the Omicron (bivalent) boosters?

- The Moderna and Pfizer Omicron (bivalent) vaccines, which we will also call "Omicron boosters," contain messenger RNA (mRNA) that instructs cells in our bodies to make the "spike" protein of the original COVID-19 virus strain and the newer omicron variants BA.4 and BA.5.
- These Omicron (bivalent) booster vaccines replace the original booster vaccines used before to 9/1/2022 (called monovalent boosters), which provided protection against the original COVID-19 virus strain only. These original (monovalent) mRNA booster vaccines are no longer authorized for use as a booster dose for people ages 12 years and older.
- **Only the Omicron (bivalent) booster vaccines are to be used for booster shots, effective 9/2/2022.**
- **Note:** Anyone who has never received a COVID-19 vaccine still needs to receive the original (monovalent) vaccines that have been available since the end of 2020 for their primary vaccine series.

How do mRNA vaccines work again?

Remember, you are not being injected with the COVID-19 virus, just a message (code) to make the spike protein. The spike protein is found on the surface (outside coating) of the COVID-19 virus that causes COVID-19 disease. After the spike protein piece is made by our bodies, our cells break down the mRNA (message) and remove it from our bodies. Our body makes the spike protein for a very short time and then the message is destroyed. Our immune system then recognizes that the spike protein does not belong there; it is foreign to our bodies. This triggers our immune system to produce antibodies, which work like "flags" that are put on the spike proteins to tell the body's defense system they should be destroyed. Our immune system also activates immune cells to fight off what it thinks is an infection. This is the same immune process your body goes through if you're infected with the virus that causes COVID-19, but the shot makes it so you don't actually have to risk getting sick to get the protection.

At the end of the process, our bodies have learned how to help protect against future infection with the COVID-19 virus. The benefit is that people get this protection from a vaccine without ever having to risk the potentially serious consequences of getting sick with COVID-19 disease, including being hospitalized, dying, or developing long-COVID.

Who can get these updated booster vaccines, and when?

The ACIP updated the recommendations and guidelines for the use of these two new Omicron (bivalent) vaccines:

- For all booster shots, Moderna and Pfizer-BioNTech Omicron (bivalent) vaccines are recommended. The recommendations vary based on the person's age and the brands they had for their primary series.
- The updated Moderna Omicron (bivalent) booster is authorized for people 18 years and older.
- The updated Pfizer Omicron (bivalent) booster is authorized for people 12 years and older.
- ACIP recommends that anyone who falls into one of the following groups receive the Omicron (bivalent) booster shot:
    - Those who have already received their primary vaccine series and no booster shots in the past
    - Those who have already received their primary vaccine series and 1 booster shot in the past
    - Those who have already received their primary vaccine series and 2 booster shots in the past

The updated Omicron (bivalent) booster shot is recommended to be given **at least 2 months** after the last shot received.

Vaccination history	→	Next dose
Primary series	At least 2 months →	1 bivalent booster dose
Primary series + 1 booster	At least 2 months →	1 bivalent booster dose
Primary series + 2 booster	At least 2 months →	1 bivalent booster dose

Source: ACIP meeting September 1, 2022, https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-09-01/09-COVID-Hall-508.pdf

Note: These updated recommendations do not apply to children 5–11 years old. If they are eligible to receive a booster shot, they should receive the original monovalent mRNA booster shot. Children ages 6 months – 4 years old are not recommended to receive a booster shot at this time. This may change in the future.

For more details, please see: Updated COVID-19 Vaccine Schedule 9/2/22

Most medical offices, pharmacies, health departments, and clinics that were previously giving COVID-19 vaccines have received the newly updated Omicron booster vaccine. Please check the vaccine finder website to search for a convenient location to get your Omicron shot.

Please encourage your communities to stay up-to-date on their COVID-19 vaccines!!

Resources:

https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html
https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-moderna-pfizer-biontech-bivalent-covid-19-vaccines-use
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mRNA.html?s_cid=11344:how%20do%20mrna%20vaccines%20work:sem.ga:p:RG:GM:gen:PTN:FY21
https://www.cdc.gov/vaccines/acip/meetings/index.html
https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/
https://www.cdc.gov/vaccines/acip/committee/role-vaccine-recommendations.html
https://publichealthcollaborative.org/resources/resource-covid-19-booster-dose-messaging-and-outreach-tools/?utm_source=PHCC+Email&utm_medium=email&utm_campaign=Newsletter

Definitions for COVID-19 vaccine use (adapted from Table 2.) Terminology for COVID-19

Primary series: Initial vaccination, which can range from a single dose to a 3-dose series depending on the vaccine product and a person's age and immune status.

Additional dose: A dose of vaccine administered after the primary series to people who may be less likely to have a good protective immune response after the initial vaccination. Also, people who are moderately or severely immunocompromised and who received the Johnson & Johnson COVID-19 vaccine for their primary series should receive an additional dose using an mRNA vaccine.

Booster dose: A subsequent dose of vaccine administered to enhance or restore protection that might have waned over time after the primary series vaccination.

- **Homologous booster dose:** The same vaccine brand is used for the booster dose and the primary series.
- **Heterologous booster dose (mix-and-match booster):** A different vaccine brand is used for the booster dose and the primary series.

Monovalent vaccine: The vaccine product is based on the original (ancestral) strain of SARS-CoV-2.

Bivalent vaccine ("Omicron vaccine"): The vaccine product is based on the original (ancestral) strain of SARS-CoV-2 and the Omicron BA.4 and BA.5 (BA.4/BA.5) variants of SARS-CoV-2 are also included.