



November 12, 2021

Dear Colleague,

We are writing to share updates regarding COVID-19 booster doses.

COVID-19 vaccine dosing and schedule, including booster doses (adapted from the [CDC](#))

Vaccine Manufacturer	Primary dose	Primary dose volume	Number of doses in primary series*	Interval between primary doses**	Interval between primary and booster doses**	Booster dose	Booster volume
Pfizer-BioNTech	30 µg	0.3 mL	2	3 weeks (21 days)	≥6 months	30 µg	0.3 mL
Moderna	100 µg	0.5 mL	2	4 weeks (28 days)	≥6 months	50 µg	0.25 mL
Johnson & Johnson/Janssen	5x10 ¹⁰ viral particles	0.5 mL	1	Not Applicable	≥2 months	5x10 ¹⁰ viral particles	0.5 mL

*People who are moderately to severely immunocompromised and received two doses of the Pfizer or Moderna vaccine should receive an additional (third) primary dose of the same vaccine at least 28 days after the second dose (if given more than 4 days prior to the recommended interval, repeat the additional dose). See below for booster dose recommendations for this population.

**If the second dose of the Pfizer or Moderna vaccine is administered more than 4 days prior to the recommended interval, the second dose should be repeated. See [here](#) for details on intervals and grace periods.

For the Pfizer and Johnson & Johnson vaccines, the dose and volume are the same for the primary series and booster dose. **For Moderna, the booster dose is half the amount (50 µg or 0.25 mL) of the primary dose (100 µg or 0.5 mL), regardless of what vaccine the person received for their primary series.** Ensure adequate training and workflows to make sure the correct vaccine dose is used.

Any FDA authorized or approved COVID-19 vaccine can be used for booster vaccination, regardless of the vaccine product used for primary vaccination. Individual risk-benefit assessment may inform which booster product to use, including availability of a booster product and the potential risk profile of vaccine boosters. For additional information, see [here](#). Data on heterologous dosing for booster doses are [limited](#) but more information is expected.

For Moderna vaccine, when extracting only booster doses or a combination of primary series and booster doses, the maximum number of doses that may be extracted from a vial should not exceed 20 doses; the same vials can be used for any combination of primary vaccine doses, additional doses, and booster doses.



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Dave A. Chokshi, MD, MSc
Commissioner

Do not puncture the vial stopper more than 20 times. Additional operational issues regarding storage, handling, and administration by vaccine product can be found [here](#).

Booster doses for people who are moderately and severely immunocompromised

For people who received an mRNA vaccine (Pfizer or Moderna) primary series: People who received three vaccine doses can receive a booster dose at least 6 months after completing their third mRNA vaccine dose. They may receive a single COVID-19 vaccine booster dose of any FDA-approved or authorized vaccine (dosage for Pfizer and Johnson & Johnson vaccine booster is the same as the primary series; if Moderna vaccine booster is used, administer 50 µg in 0.25 mL). This would result in four total doses.

For people who received a Johnson & Johnson vaccine primary series: The additional dose recommendation does not apply to the Johnson & Johnson vaccine. At least 2 months (8 weeks) after the first Johnson & Johnson dose, they should receive a single COVID-19 booster dose of any FDA-approved or authorized vaccine (dosage for Pfizer and Johnson & Johnson vaccine booster is the same as the primary series; if Moderna vaccine booster is used, administer 50 µg in 0.25 mL). A person who received one primary dose of Johnson & Johnson COVID-19 vaccine should not receive more than two COVID-19 vaccine doses.

Recipients of hematopoietic cell transplant or CAR-T-cell therapy should be revaccinated with a primary vaccine series at least 3 months after transplant or therapy.

People who received COVID-19 vaccine outside the U.S.

People [vaccinated outside the U.S.](#) with a COVID-19 vaccine currently approved or authorized by the U.S. Food and Drug Administration (FDA) may receive a booster dose following the guidance above. People who received a COVID-19 vaccine outside the U.S. with a vaccine authorized for emergency use by the [World Health Organization \(WHO\)](#) (but not approved or authorized by the FDA) **are not recommended to receive additional COVID-19 vaccine doses at this time.** People who received a COVID-19 vaccine that is **not** currently approved or authorized by FDA or WHO are not recommended to receive a booster dose at this time but may be offered [a complete FDA-approved or FDA-authorized](#) COVID-19 vaccine primary series ≥ 28 days after the last dose.

Additional clinical education materials are available [here](#) and full details of CDC clinical considerations [here](#). Thank you for your work to protect New Yorkers from COVID-19.

Sincerely,

A handwritten signature in black ink that reads 'Jane R. Zucker'.

Jane R. Zucker, MD, MSc
Assistant Commissioner
Bureau of Immunization