



2024 Research of Most Appropriate Vaccinations for Dialysis Patients

Pneumococcal Vaccine

Adults 19–64 years old

Not previously received any pneumococcal vaccine:

- Administer 1 dose of PCV15 or PCV20.
 - If PCV15 is used, it should be followed with one dose of PPSV23 at least 1 year later.
 - Minimum interval (8 weeks) can be considered in adults with chronic renal failure. Vaccines are then complete.
 - If PCV20 is used, it does not need to be followed by a dose of PPSV23. Vaccines are then complete until age 65.

Previously received PPSV23, but not received PCV13, PCV15, PCV20:

- Administer 1 dose of PCV15 or PCV20.
 - The PCV15 or PCV20 dose should be administered at least one year after the most recent PPSV23 vaccination.
 - Regardless of vaccine given, an additional dose of PPSV23 is not recommended since already received. Vaccines are then complete.

Received PCV13 without PPSV23:

- Administer one dose of PCV20 or PPSV23.
 - The PCV20 dose should be given at least 1 year after PCV13. When PCV20 is used, vaccines are then complete.
- PPSV23 should be administered at least 8 weeks after PCV13. When PPSV23 is used, administer another pneumococcal vaccine at least 5 years later. At that time, administer either one dose of PCV20 or a second dose of PPSV23.
 - When PCV20 is used, vaccines are then complete.
 - When a second PPSV23 dose is used, no additional pneumococcal vaccines are recommended until at least age 65.

Received PCV13 and one dose of PPSV23:

- Administer one dose of PCV20 or a second PPSV23 dose.
 - The PCV20 dose should be given at least 5 years after the last pneumococcal vaccine. Vaccines are then complete.
 - The second dose of PPSV23 should be given at least 8 weeks after PCV13 and 5 years after PPSV23. No additional pneumococcal vaccines are then recommended until at least age 65.

Adults 65 years old or older

Not previously received any pneumococcal vaccine:

- Administer one dose of PCV15 or PCV20.
 - When PCV15 is used, it should be followed by a dose of PPSV23 at least 8 weeks later. Vaccines are then complete.
 - When PCV20 is used, it does not need to be followed by a dose of PPSV23. Vaccines are then complete.

Previously received a PPSV23:

- Administer 1 dose of PCV15 or PCV20.
 - The PCV15 or PCV20 dose should be administered at least 1 year after the most recent PPSV23 vaccination.
 - Regardless of if PCV15 or PCV20 is given, an additional dose of PPSV23 is NOT recommended since already received. Vaccines are then complete.

Received only PCV13:

- Administer one dose of PCV20 or PPSV23. Regardless of vaccine used, vaccines are then complete.
 - The PCV20 dose should be administered at least 1 year after PCV13.
 - The PPSV23 dose should be administered at least 8 weeks after PCV13.

Received PCV13 at Any Age and PPSV23 Before Age 65 Years:

- Administer 1 dose of PCV20 or PPSV23. Regardless of vaccine used, the series is then complete.
 - The PCV20 dose should be administered at least 5 years after the last pneumococcal vaccine.
 - The PPSV23 dose should be given at least 5 years after the last PPSV23 dose. It should also be administered at least 8 weeks after the PCV13 dose.

Received PCV13 at Any Age and PPSV23 After Age 65 Years:

- Use shared clinical decision-making to decide whether to administer PCV20.*
 - If so, the dose of PCV20 should be administered at least 5 years after the last pneumococcal vaccine.

*[Shared Clinical Decision-Making PCV20 Vaccination for Adults 65 Years or Older](#)

Influenza (Flu) Vaccine

Vaccine	Approved Ages	Vaccine Doses	Notes
	Standard-dose Flu shot (IIV4s and RIV4)		
Afluria Quadrivalent	6 months through 35 months ≥ 3 years	1 dose	
Fluarix Quadrivalent	≥ 6 months	1 dose	
FluLaval Quadrivalent	≥ 6 months	1 dose	
Fluzone Quadrivalent	6 months through 35 months ≥ 3 years	1 dose	
Flucelvax Quadrivalent	≥ 6 months old	1 dose	
Flublok Quadrivalent	≥ 18 years old	1 dose	Recommended over standard dose for ≥ 65 years of age
Fluzone High-Dose Quadrivalent	≥ 65 years old	1 dose	Recommended over standard dose for ≥ 65 years of age
Fluad Quadrivalent	≥ 65 years old	1 dose	Recommended over standard dose for ≥ 65 years of age

COVID-19 Vaccine

For those moderately or severely immunocompromised (including those on dialysis):

- Should receive all doses from the same manufacturer. In the following exceptional situations, a different age-appropriate COVID-19 vaccine product may be administered: the same vaccine is not available, the person would otherwise not complete the vaccination series, or the person starts but is unable to complete a vaccination series with the same vaccine due to a contraindication.

Pfizer-BioNTech

5+ Years of Age

COVID-19 vaccination history (regardless of COVID-19 vaccine formula)	Schedule for administration of 2023–2024 Pfizer-BioNTech COVID-19 Vaccine
Unvaccinated	Give a 3-dose initial series. Administer: <ul style="list-style-type: none"> • Dose 1 now. • Dose 2 at least 3 weeks after Dose 1. • Dose 3 at least 4 weeks after Dose 2.
1 previous dose of any Pfizer-BioNTech COVID-19 Vaccine (Dose 1)	Complete series. Administer: <ul style="list-style-type: none"> • Dose 2 at least 3 weeks after Dose 1. • Dose 3 at least 4 weeks after Dose 2.
2 doses of any Pfizer-BioNTech COVID-19 Vaccine (Doses 1 and 2)	Complete Series. Administer: <ul style="list-style-type: none"> • Dose 3 at least 3 weeks after Dose 2.
3 or more doses of Pfizer-BioNTech COVID-19 Vaccine, INCLUDING at least 1 dose of 2023–2024 COVID-19 vaccine	<ul style="list-style-type: none"> • People who are moderately or severely immunocompromised (including those on dialysis) have the option to receive 1 additional dose at least 8 weeks following the last recommended dose. • Further additional doses may be administered, informed by the judgement of a healthcare provider and personal preference and circumstances. • Any further additional doses should be administered at least 8 weeks after the last COVID-19 vaccination dose.

Moderna

5+ Years of Age

COVID-19 vaccination history (regardless of COVID-19 vaccine formula)	Schedule for administration of 2023–2024 Moderna COVID-19 Vaccine
Unvaccinated	Give a 3-dose initial series. Administer: <ul style="list-style-type: none">• Dose 1 now.• Dose 2 at least 4 weeks after Dose 1.• Dose 3 at least 4 weeks after Dose 2.
1 previous dose of any Moderna COVID-19 Vaccine (Dose 1)	Complete the series. Administer: <ul style="list-style-type: none">• Dose 2 at least 4 weeks after Dose 1.• Dose 3 at least 4 weeks after Dose 2.
2 doses of any Moderna COVID-19 Vaccine (Doses 1 and 2)	Complete the series. Administer: <ul style="list-style-type: none">• Dose 3 at least 4 weeks after Dose 2.
3 or more doses of Moderna COVID-19 Vaccine, NOT INCLUDING at least 1 dose of 2023–2024 COVID-19 vaccine	Give 1 dose at least 8 weeks after the previous dose.
3 or more doses of Moderna COVID-19 Vaccine, INCLUDING at least 1 dose of 2023–2024 COVID-19 vaccine	<ul style="list-style-type: none">• People who are moderately or severely immunocompromised (including those on dialysis) have the option to receive 1 additional dose at least 8 weeks following the last recommended dose.• Further additional doses may be administered, informed by the judgement of a healthcare provider and personal preference and circumstances.• Any further additional doses should be administered at least 8 weeks after the last COVID-19 vaccination dose.

Novavax

12+ Years of Age

COVID-19 vaccination history (regardless of COVID-19 vaccine formula)	Schedule for administration of 2023–2024 Novavax COVID-19 Vaccine
Unvaccinated	Give a 2-dose initial series. Administer: <ul style="list-style-type: none">• Dose 1 now.• Dose 2 at least 3 weeks after Dose 1.
1 previous dose of the original Novavax COVID-19 vaccine (Dose 1)	Administer Dose 2 at least 8 weeks after the previous dose.
1 previous dose of 2023–24 Novavax COVID-19 Vaccine (Dose 1)	Administer Dose 2 at least 3 weeks after the previous dose.
2 previous doses of Novavax COVID-19 vaccine, NOT INCLUDING 2023–24 COVID-19 vaccine	Administer 1 dose at least 8 weeks after the previous dose.
2 or more doses of Novavax COVID-19 Vaccine, INCLUDING 2023–24 COVID-19 vaccine	<ul style="list-style-type: none">• People who are moderately or severely immunocompromised (including those on dialysis) have the option to receive 1 additional dose at least 8 weeks following the last recommended dose.• Further additional doses may be administered, informed by the judgement of a healthcare provider and personal preference and circumstances.• Any further additional doses should be administered at least 8 weeks after the last COVID-19 vaccination dose.

Respiratory syncytial virus (RSV) Vaccine

Adults age 60 years old or older

- Adults age 60 years and older may receive a single dose of RSV vaccine (RSVPreF3 and RSVpreF) using shared clinical decision-making.
 - RSV vaccine is administered as a single dose.
 - There is no maximum age for getting an RSV vaccination.
- For adults age 60 years or older, healthcare providers may recommend RSV vaccination, especially for those with advanced chronic kidney disease (CKD), and on dialysis.
- For adults who have had an RSV infection, there is no specific recommended length of time adults must wait before receiving the vaccine. However, if recovering from a moderate or severe illness, it is recommended to wait until recovering before receiving an RSV vaccine.

References

- Centers for Disease Control and Prevention (CDC). Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)—United States, 2023–24. August 2023. Retrieved from <https://www.cdc.gov/flu/pdf/professionals/acip/acip-2023-24-Summary-Flu-Vaccine-Recommendations.pdf>.
- CDC. Recommended updated (2023–2024 Formula) COVID-19 vaccines for people who ARE moderately or severely immunocompromised. October 2023. Retrieved from <https://www.cdc.gov/vaccines/covid-19/downloads/COVID19-vaccination-recommendations-most-people.pdf>.
- CDC. Shared Clinical Decision-Making. PCV20 Vaccination for Adults 65 Years or Older. February 2023. Retrieved from <https://www.cdc.gov/vaccines/hcp/admin/downloads/job-aid-SCDM-PCV20-508.pdf>.
- CDC. Updated (2023–2024 Formula) Moderna COVID-19 Vaccine. September 2023. Retrieved from <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/downloads/Standing-Orders-5yrs-older-508.pdf>.
- CDC. Updated (2023–2024 Formula) Novavax COVID-19 Vaccine. November 2023. Retrieved from <https://www.cdc.gov/vaccines/covid-19/info-by-product/novavax/downloads/novavax-standing-orders.pdf>.
- CDC. Updated (2023–2024 Formula) Pfizer-BioNTech COVID-19 Vaccine. September 2023. Retrieved from <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/Pfizer-StandingOrders-5yrs-Older-508.pdf>.
- CDC. Vaccines and Preventable Diseases. September 2023. Retrieved from <https://www.cdc.gov/vaccines/vpd/index.html>.
- CDC. What Older Adults Should Know. August 2023. Retrieved from <https://www.cdc.gov/vaccines/vpd/rsv/public/older-adults.html>.
- National Kidney Foundation. Vaccines for Adults with Advanced Chronic Kidney Disease, Kidney Failure, or Kidney Transplant. Retrieved from <https://www.kidney.org/atoz/content/vaccinations>.

This material was prepared by the End Stage Renal Disease National Coordinating Center (ESRD NCC) contractor, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy nor imply endorsement by the U.S. Government. FL-ESRD NCC-NC3PAW-04092024-01