



Vaccination Coadministration

The safety and immune response when two or more vaccines are given on the same day (aka coadministration) to adults is supported by experimental evidence and extensive clinical experience. (ref. 1-39) Coadministration yields comparable immune responses except in some

studies where the antibody level was lower for a minority of antigens. However, the clinical significance of these instances is unknown. Safety is comparable. In a few studies, some measures of short-term reactogenicity (e.g., side effects like fatigue, headache, or pain) were higher with

coadministration. One travel vaccines study but not others found a small increase in side effects when 3 or 4 vaccines were coadministered on the same day (ref 4, 5). The table below summarizes data from studies with two vaccines coadministered, but may not be an exhaustive list.

VACCINE → ↓	COVID-19	Influenza (inactivated)	Respiratory Syncytial Virus (RSV)	Tetanus-diphtheria pertussis (Tdap - whooping cough) and Td	Recombinant zoster vaccine (RZV/shingles)	Pneumococcal polysaccharide (PPSV23)	Pneumococcal conjugate (PCV)	Hepatitis A	Hepatitis B	Meningococcal ACWY
COVID-19		3, 13, 39*	15, 20*	11*	2, 31, 34*	23*	17, 22, 33*			
Influenza (inactivated)	3, 13, 39*		6, 9, 10, 12, 15, 20, 22, 25*	24, 26*	2, 25, 31, 34, 36, 39*	21, 23*	7, 27, 30, 32, 33, 39*			
Respiratory Syncytial Virus (RSV)	15, 20*	6, 9, 10, 12, 15, 20, 22, 25*		23*						
Tetanus-diphtheria pertussis (Tdap - whooping cough) and Td	11*	24, 26*	23*		2, 26, 31, 34, 38ç		37*			28, 29*
Recombinant zoster vaccine (RZV/shingles)	2, 31, 34*	2, 25, 31, 34, 36, 39*		2, 26, 31, 34, 38ç			2, 18, 31, 34*			
Pneumococcal polysaccharide (PPSV23)	23*	21, 23*					28, 29*			
Pneumococcal conjugate (PCV)	17, 22, 33*	7, 27, 30, 32, 33, 39*		37*	2, 18, 31, 34*	28, 29*		35*		
Hepatitis A							35*		1*	1*
Hepatitis B								1*		1*
Meningococcal ACWY				28, 29*				1*	1*	

KEY		Similar immune response and side effects
		Similar immune response for most antigens, but not all (unknown clinical significance). No increase in side effects.
		Similar immune response, but increase in some side effects (e.g., fatigue, headache, soreness)
		Similar immune response for most antigens, but not all (unknown clinical significance); increase in some side effects (e.g., fatigue, pain)
		Limited or no data publically available
		Not recommended. Decreased immune response.

*reference numbers. See page 2.



National
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Influenza
Immunization
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Vaccination Coadministration References

#	Vaccines Coadministered	Reference
1	Twinrix and MenACWY	Alberer M, et al. J Travel Med. 2015;22(2):105-114. doi:10.1111/jtm.12180
2	RZV and influenza; RZV and COVID-19; RZV and Tdap; RZV and PCV13; RZV and PPSV23.	Ali SO, et al. Vaccine. 2024 Mar 19;42(8):2026-2035.
3	COVID-19 and influenza	Boikos C, et al. Vaccines (Basel). 2025 Apr 2;13(4):381. doi: 10.3390/vaccines13040381.
4	Travel vaccines	Bonanni P, et al. Hum Vaccin Immunother. 2023;19(1):2195786. doi: 10.1080/21645515.2023.2195786.
5	Multiple vaccines in German travelers	Börner N, et al. J Travel Med. 2003;10(2):112-116. doi:10.2310/7060.2003.31690
6	RSV and HD influenza	Buynak, R, et al. Infect Dis Ther 2024;13:1789–1805 doi.org/10.1007/s40121-024-00985-4
7	PCV20 and influenza	Cannon K, et al. Vaccine 2023;41:2137-2146. doi: 10.1016/j.vaccine.2022.11.046.
8	PPSV and PCV	CDC. https://www.cdc.gov/vaccines/hcp/imz-best-practices/timing-spacing-immunobiologics.html
9	RSV and influenza	CDC. https://www.cdc.gov/vaccines/vpd/rsv/hcp/older-adults.html
10	RSV and influenza	Chandler, et al. Clin Infect Dis. Published online January 8, 2024. doi:10.1093/cid/ciad786
11	Tdap and COVID-19	Chen WC, et al. Vaccines (Basel). 2024;12(3):312. doi: 10.3390/vaccines12030312.
12	RSV and influenza	Chime N, et al. J Infect Dis. 2025;231(1):e144-e153. doi: 10.1093/infdis/jiae342.
13	COVID-19 and influenza	Choi MJ, et al. Clin Microbiol Infect. 2024;30(5):653-659. doi: 10.1016/j.cmi.2024.01.010.
14	RSV and adj influenza	Clark R, et al. Clin Infect Dis. 2024;79(4):1088-1098. doi: 10.1093/cid/ciae365.
15	RSV and COVID-19; RSV and influenza	Goswami J, et al. Lancet Infect Dis. 2025;25(4):411-423. doi:10.1016/S1473-3099(24)00589-9
16	Multiple vaccines	Hua L, et al. Travel Med Infect Dis. 2008;6(3):130-136. doi:10.1016/j.tmaid.2008.03.004
17	Novavax COVID and PCV20	Jorda A. et al. J Infect. 2025;90(2):106405. doi: 10.1016/j.jinf.2024.106405.
18	RZV and PPSV23	Marechal C, et al. Vaccine. 2018;36(29):4278-4286. doi: 10.1016/j.vaccine.2018.05.110.
19	RZV and PCV13	Min J-Y, et al. J Infect. 2022;84(4):490-498. doi: 10.1016/j.jinf.2021.12.033.
20	RSV and influenza; RSV and COVID	Neutel JM, et al. Vaccines (Basel). 2025;13(2):158. doi:10.3390/vaccines13020158.
21	PPSV23 and influenza	Ofori-Anyinam O, et al. Vaccine. 2017;35(46):6321-6328. doi: 10.1016/j.vaccine.2017.09.012.
22	PPSV23 and COVID, PCV15 and COVID	Omole T, et al. Vaccines (Basel). 2025;13(2):192. doi: 10.3390/vaccines13020192.
23	RSV and Tdap. RSV and influenza	Abrysvo. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/abrysvo
24	Tdap and influenza	Adecel. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/vaccines/adacel
25	RSV and HD influenza	Arexvy. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/arexvy
26	Tdap and influenza, MenACWY, and RZV	Boostrix. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/vaccines/boostrix
27	PCV21 and influenza	Capvaxiv. Prescribing Information. https://www.fda.gov/vaccines-blood-biologics/capvaxiv
28	MenACWY with or without Tdap+HPV.	MenQuadfi. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/menquadfi
29	Tdap and MenACWY	Menveo. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/vaccines/menveo
30	PCV20 and influenza	Prevnam 20. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/vaccines/prevnam-20
31	RZV and influenza, RZV and COVID-19, RZV and Tdap, RZV and PCV13, RZV and PPSV23	Shingrix. Prescribing information. https://www.fda.gov/vaccines-blood-biologics/vaccines/shingrix
32	PCV15 and influenza	Vaxneuvance. Prescribing Information. https://www.fda.gov/vaccines-blood-biologics/vaccines/vaxneuvance
33	PPSV23 and influenza, PCV and influenza, COVID-19 and PCV	Rahimi HK, et al. Vaccine. 2025;59:127293. doi: 10.1016/j.vaccine.2025.127293.
34	RZV and influenza; RZV and COVID-19; RZV and Tdap; RZV and PCV13; RZV and PPSV23	Rezahosseini O, et al. Vaccines (Basel). 2025;13(6):637. doi:10.3390/vaccines13060637
35	PCV13 and hepatitis A	Riekkinen M, et al. Clin Microbiol Infect. 2023;29(12):1553-1560. doi:10.1016/j.cmi.2023.08.006
36	RZV and influenza	Schwartz TF, et al. J Infect Diseases;2017:1352–1361. https://doi.org/10.1093/infdis/jix481
37	Td and PCV13	Song JY, et al. Vaccine. 2019;37:5877-5885. doi: 10.1016/j.vaccine.2019.08.001.
38	RZV and Tdap	Strezova A, et al. Vaccine. 2019;37(39):5877-5885. doi: 10.1016/j.vaccine.2019.08.001.
39	Influenza and COVID-19; Influenza and RSV; influenza and PCV20; influenza and RZV	Tan LJ, et al. Influenza and Other Respiratory Viruses, 2025; 19:e70090

FOOTNOTE: PI=FDA-approved package insert; CDC=Centers for Disease Control and Prevention; MenACWY: meningococcal quadrivalent; PCV=pneumococcal conjugate (may be more than one valency); PPSV23: pneumococcal polysaccharide vaccine; RZV=recombinant varicella zoster (shingles); Tdap/Td: Tetanus, diphtheria, and pertussis;