

Administering Vaccines: Dose, Route, Site, and Needle Size

Vaccine	Dose	Route
COVID-19 <i>For vaccination of immunocompromised people, see www.cdc.gov/vaccines/covid-19/downloads/COVID-19-immunization-schedule-ages-6months-older.pdf</i>	Pfizer-BioNTech: <ul style="list-style-type: none"> 6 mo thru 4yrs: 3 mcg in 0.2 mL (maroon cap) 5 thru 11 yrs: 10 mcg in 0.2 mL (orange cap) 12+ yrs: 30 mcg in 0.3 mL (gray cap or purple cap) Moderna: <ul style="list-style-type: none"> 6 mo thru 5 yrs: 25 mcg in 0.25 mL (blue cap, magenta label) 6 thru 11 yrs (primary series): 50 mcg in 0.5 mL (blue cap, purple label) 12+ yrs (primary series): 100 mcg in 0.5 mL (red cap, blue label) 18+ yrs (booster dose): 50 mcg in 0.5 mL (blue cap, purple label) or 50 mcg in 0.25 mL (red cap, blue label) Janssen: 18+ yrs: 0.5 mL Novavax: 18+ yrs: 0.5 mL	IM
Dengue (DENV4CYD)	0.5 mL	Subcut
Diphtheria, Tetanus, Pertussis (DTaP, DT, Tdap, Td)	0.5 mL	IM
<i>Haemophilus influenzae</i> type b (Hib)	0.5 mL	IM
Hepatitis A (HepA)	≤18 yrs: 0.5 mL ≥19 yrs: 1.0 mL	IM
Hepatitis B (HepB) <i>People 11–15 yrs may be given Recombivax HB (Merck) 1.0 mL adult formulation on a 2-dose schedule.</i>	Engerix-B; Recombivax HB ≤19 yrs: 0.5 mL ≥20 yrs: 1.0 mL HepLisav-B; PreHevbrio ≥18 yrs: 0.5 mL	IM
Human papillomavirus (HPV)	0.5 mL	IM
Influenza, live attenuated (LAIV4)	0.2 mL (0.1 mL in each nostril)	Intranasal spray
Influenza, inactivated (IIV4); 6 thru 35 mos • Egg-based IIV4: Afluria, Fluzone, Fluairix, FluLaval • Cell-culture based (ccIIV4): Flucelvax	Afluria: 0.25 mL Fluzone: 0.25 or 0.5 mL Fluairix, Flucelvax, FluLaval: 0.5 mL	IM
Influenza, inactivated (IIV4) and • Cell-culture based (ccIIV4), 3+ yrs; • Recombinant (RIV4, Flublok), 18+ yrs; • Adjuvanted (aIIV4, Fluad) 65+ yrs	0.5 mL	IM
Influenza, high-dose (IIV4-HD) 65+ yrs	0.7 mL	
Measles, Mumps, Rubella (MMR)	0.5 mL	Subcut
Meningococcal serogroups A, C, W, Y (MenACWY)	0.5 mL	IM
Meningococcal serogroup B (MenB)	0.5 mL	IM
Pneumococcal conjugate (PCV)	0.5 mL	IM
Pneumococcal polysaccharide (PPSV)	0.5 mL	IM or Subcut
Polio, inactivated (IPV)	0.5 mL	IM or Subcut
Rotavirus (RV)	Rotarix: 1.0 mL Rotateq: 2.0 mL	Oral
Varicella (VAR)	0.5 mL	Subcut
Zoster (Zos)	Shingrix: 0.5* mL	IM
Combination Vaccines		
DTaP-HepB-IPV (Pediarix) DTaP-IPV/Hib (Pentacel) DTaP-IPV (Kinrix; Quadracel) DTaP-IPV-Hib-HepB (Vaxelis)	0.5 mL	IM
MMRV (ProQuad)	0.5 mL	Subcut
HepA-HepB (Twinrix)	1.0 mL	IM

* The Shingrix vial might contain more than 0.5 mL. Do not administer more than 0.5 mL.

Intramuscular (IM) injection

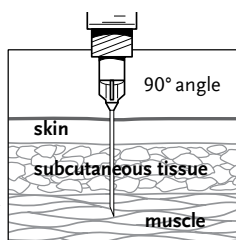
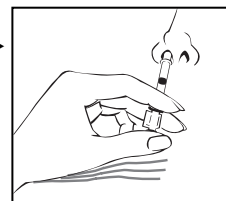
Injection Site and Needle Size		
Subcutaneous (Subcut) injection Use a 23–25 gauge needle. Choose the injection site that is appropriate to the person's age and body mass.		
AGE	NEEDLE LENGTH	INJECTION SITE
Infants (1–12 mos)	5/8"	Fatty tissue over antero-lateral thigh muscle
Children 12 mos or older, adolescents, and adults	5/8"	Fatty tissue over antero-lateral thigh muscle or fatty tissue over triceps
Intramuscular (IM) injection Use a 22–25 gauge needle. Choose the injection site and needle length that is appropriate to the person's age and body mass.		
AGE	NEEDLE LENGTH	INJECTION SITE
Newborns (1st 28 days)	5/8" ¹	Anterolateral thigh muscle
Infants (1–12 mos)	1"	Anterolateral thigh muscle
Toddlers (1–2 yrs)	1–1 1/4"	Anterolateral thigh muscle ²
	5/8–1" ¹	Deltoid muscle of arm
Children (3–10 yrs)	5/8–1" ¹	Deltoid muscle of arm ²
	1–1 1/4"	Anterolateral thigh muscle
Adolescents and teens (11–18 yrs)	5/8–1" ¹	Deltoid muscle of arm ²
	1–1 1/2"	Anterolateral thigh muscle
Adults 19 yrs or older		
Female or male <130 lbs	5/8–1" ¹	Deltoid muscle of arm
Female or male 130–152 lbs	1"	Deltoid muscle of arm
Female 153–200 lbs Male 153–260 lbs	1–1 1/2"	Deltoid muscle of arm
Female more than 200 lbs Male more than 260 lbs	1 1/2"	Deltoid muscle of arm
Female or male, any weight	1 1/2"	Anterolateral thigh muscle

1 A 5/8" needle may be used in newborns, pre-term infants, and patients weighing less than 130 lbs (less than 60 kg) for IM injection in the deltoid muscle only if the skin stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle to the skin.

2 Preferred site

NOTE: Always refer to the package insert included with each biologic for complete vaccine administration information. CDC's Advisory Committee on Immunization Practices (ACIP) recommendations for the particular vaccine should be reviewed as well. Access the ACIP recommendations at www.immunize.org/acip.

Intranasal (NAS) administration of Flumist (LAIV) vaccine



Subcutaneous (Subcut) injection

