

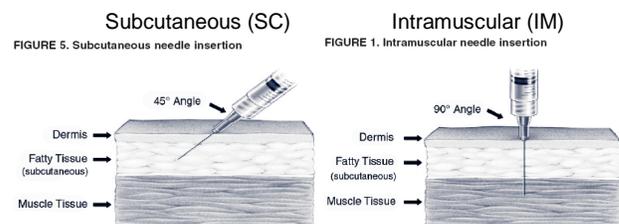
# Administering Vaccines: Dose, Route, Site, and Needle Size

Make Sure Vaccines Work & Don't Cause Unnecessary Pain Due to Local Reactions – Use the Right Needle Length!

Vaccines	Dose	Route
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)	≤19 yrs: 0.5 mL* ≥20yrs: 1.0 mL	IM
<i>*Persons 11-15 yrs. May be given Recombivax HB® (Merck) 1.0 mL Adult formulation on a 2-dose schedule</i>		
Human papillomavirus (HPV)	0.5 mL	IM
Influenza, live, attenuated (LAIV)	0.2 mL	Intranasal Spray
Influenza, trivalent inactivated (TIV)	6-35 mos: 0.25 mL >3 yrs: 0.5 mL	IM
Measles, mumps, rubella (MMR)	0.5 mL	SC
Meningococcal conjugate (MCV)	0.5 mL	IM
Meningococcal polysaccharide (MPSV)	0.5 mL	SC
Pneumococcal conjugate (PCV)	0.5 mL	IM
Pneumococcal polysaccharide (PPSV)	0.5 mL	IM or SC
Polio, inactivated (IPV)	0.5 mL	IM or SC
Rotavirus (RV)	2.0 mL	Oral
Varicella (VAR)	0.5 mL	SC
Zoster (ZOS)	0.65 mL	SC
<b>Combination Vaccines</b>		
DTaP+HepB+IPV (Pediarix®)	0.5 mL	IM
DTaP+Hib+IPV (Pentacel®)		
DTaP+Hib (TriHIBit®)		
DTaP+IPV (Kinrix®)		
Hib+HepB (Comvax®)		
MMR+Var (ProQuad®)	≤12 yrs: 0.5 mL	SC
HepA+HepB (Twinrix®)	≥18 yrs: 1.0 mL	IM

Injection Site and Needle Size		
<b>Subcutaneous (SC) Injection</b>		
Use a 23-25 gauge needle. Choose the injection site that is appropriate for the person's age and body mass.		
Age	Needle Length	Injection Site
Infants (1-12 mos.)	5/8"	Fatty tissue over anterolateral thigh muscle
Children 12 mos. or older, adolescents, and adults	5/8"	Fatty tissue over anterolateral thigh muscle or fatty tissue over triceps
<b>Intramuscular (IM) Injection</b>		
Use a 22-25 gauge needle. Choose the injection site and needle length appropriate to the person's age and body mass.		
Age	Needle Length	Injection Site
Newborns (1 <sup>st</sup> 28 days)	5/8"	Anterolateral thigh muscle <i>Skin stretched tight, subcutaneous tissue not bunched.</i>
Infants (1-12 mos.)	1"	Anterolateral thigh muscle
Toddlers (1-2 yrs.)	1" - 1 1/4"	Anterolateral thigh muscle or Deltoid muscle of arm
Children & teens (3-18 yrs.)	1" - 1 1/4"	Deltoid muscle of the arm or anterolateral thigh muscle
Adults 19 yrs. & older		
Male or female less than 130 lbs.	1"	Deltoid muscle of the arm
Female 130-200 lbs. Male 130-260 lbs.	1" - 1 1/2"	Deltoid muscle of the arm
Female 200+ lbs Male 260+ lbs.	1 1/2"	Deltoid muscle of the arm

**Needle Length:** Proper needle length and technique are necessary to deliver the vaccine to the muscle. If the vaccine is not delivered to the muscle, the immune response may not be adequate and injection site reactions may be increased.



Adapted from California Immunization Branch

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Illustrations from "General Recommendations on Immunization" MMWR Dec. 1, 2006 Vol. 55, No. RR-15.