

Needle Length and Injection Site of Intramuscular Injections

Birth – 18 Years		
Age	Needle Length	Injection Site
Newborn*	5/8" (16mm)†	Anterolateral thigh
Infant 1-12 months	1" (25mm)	Anterolateral thigh
Toddler 1-2 years	1" - 1¼" (25-32mm) 5/8"†- 1" (16-25mm)	Anterolateral thigh§ Deltoid muscle of the arm
Child/Adolescent 3-18 years	5/8"†- 1" (16-25mm) 1" - 1¼" (25-32mm)	Deltoid muscle of the arm§ Anterolateral thigh
Aged >19 Years		
Sex/Weight	Needle Length	Injection Site
Male and female <60 kg (130 lbs)	1" (25mm)¶	Deltoid muscle of the arm
Female 60-90 kg (130-200 lbs)	1" 1½" (25-38mm)	
Male 60-118 kg (130-160 lbs)	1½" (25-38mm)	
Female >90 kg (200 lbs)		
Male >118 kg (260 lbs)		

* Newborn = first 28 days of life

† If skin stretched tight, subcutaneous tissues not bunched.

§ Preferred site.

¶ Certain experts recommend a 5/8" (16mm) needle for males and females who weigh <60 kg (130 lbs).

Adapted from: Poland GA, Borrud A, Jacobsen RM, et al. Determination of deltoid fat pad thickness: implications for needle length in adult immunization. JAMA 1997;277: 1709-11.