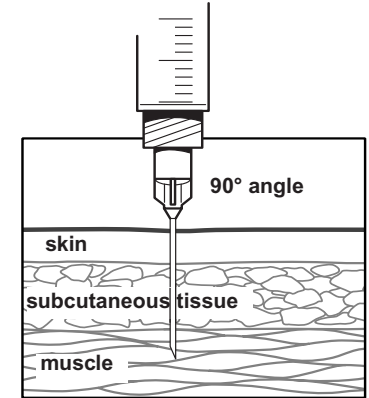


# How to Administer Intramuscular (IM) Injections

Administer these vaccines by the intramuscular (IM) route: Diphtheria-tetanus (DT, Td) with pertussis (DTaP, Tdap); *Haemophilus influenzae* type b (Hib); hepatitis A (HepA); hepatitis B (HepB); human papillomavirus (HPV); inactivated influenza (TIV); meningococcal conjugate (MCV); and pneumococcal conjugate (PCV). Administer inactivated polio (IPV) and pneumococcal polysaccharide (PPSV) either IM or SC.

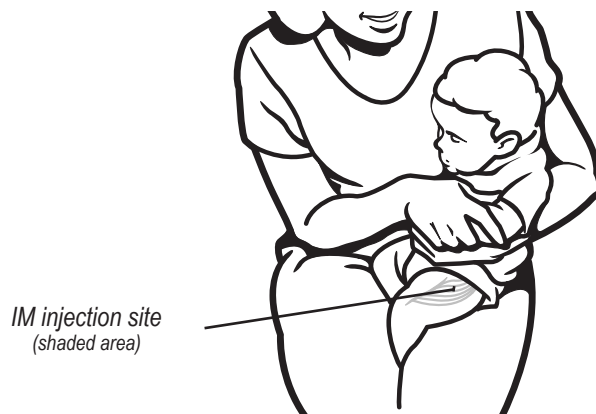
Patient age	Injection site	Needle size	Needle insertion
Newborn (0–28 days)	Anterolateral thigh muscle	5/8" (22–25 gauge)	<p>Use a needle long enough to reach deep into the muscle.</p> <p>Insert needle at a 90° angle to the skin with a quick thrust.</p> <p>(Before administering an injection, it is not necessary to aspirate, i.e., to pull back on the syringe plunger after needle insertion.<sup>†</sup>)</p> <p>Multiple injections given in the same extremity should be separated by a minimum of 1", if possible.</p>
Infant (1–12 months)	Anterolateral thigh muscle	1" (22–25 gauge)	
Toddler (1–2 years)	Anterolateral thigh muscle	1–1¼" (22–25 gauge)	
	Alternate site: Deltoid muscle of arm if muscle mass is adequate	5/8–1" (22–25 gauge)	
Children (3–18 years)	Deltoid muscle	5/8–1" (22–25 gauge)	
	Alternate site: Anterolateral thigh muscle	1–1¼" (22–25 gauge)	
Adults 19 years and older	Deltoid muscle of arm	1–1½" (22–25 gauge)	
	Alternate site: Anterolateral thigh muscle	1–1¼" (22–25 gauge)	



\*A 5/8" needle may be used only if the skin is stretched tight, the subcutaneous tissue is not bunched, and injection is made at a 90° angle.  
 †A 5/8" needle is sufficient in adults weighing <130 lbs (<60 kg); a 1" needle is sufficient in adults weighing 130–152 lbs (60–70 kg); a 1–1½" needle is recommended in women weighing 152–200 lbs (70–90 kg) and men weighing 152–260 lbs (70–118 kg); a 1½" needle is recommended in women weighing >200 lbs (>90 kg) or men weighing >260 lbs (>118 kg).

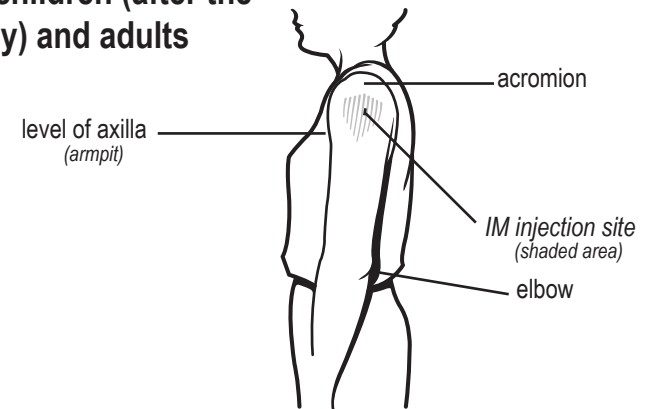
<sup>†</sup>CDC. "ACIP General Recommendations on Immunization" at [www.immunize.org/acip](http://www.immunize.org/acip)

## IM site for infants and toddlers



Insert needle at a 90° angle into the anterolateral thigh muscle.

## IM site for children (after the 3rd birthday) and adults



Insert needle at a 90° angle into thickest portion of deltoid muscle — above the level of the axilla and below the acromion.