

# How to Administer IM (Intramuscular) Injections

Vaccines given IM (intramuscular) route: DTaP, DT, Hib, hepA, hepB, HPV, IIV, MCV, PCV, rabies, and Td, Tdap.

Administer IPV and PPSV vaccines either via IM or SQ (subcutaneous) route.

Patient's age	Site (see illustrations)	Needle size*
Newborn/infant (Birth -1 year)	<ul style="list-style-type: none"> <li>Anterolateral thigh</li> </ul>	<ul style="list-style-type: none"> <li>1" needle</li> <li>5/8" in premies or newborns (0-28 days old) if muscle mass inadequate<sup>1</sup></li> <li>23-25 gauge needle</li> </ul>
Toddler (1-3 years)	<ul style="list-style-type: none"> <li>Anterolateral thigh preferred</li> <li>Deltoid when adequate mass developed</li> </ul>	<ul style="list-style-type: none"> <li>1" – 1¼" needle for thigh</li> <li>5/8" – 1" needle for deltoid</li> <li>23-25 gauge needle</li> </ul>
Children (3-11 years)	<ul style="list-style-type: none"> <li>Deltoid</li> <li>Anterolateral thigh</li> </ul>	<ul style="list-style-type: none"> <li>5/8" – 1" needle for deltoid</li> <li>1" – 1¼" needle for thigh</li> <li>23-25 gauge needle</li> </ul>
Adolescents/adults <sup>2</sup> (11 years and older)	<ul style="list-style-type: none"> <li>Deltoid preferred</li> <li>Anterolateral thigh may be used if necessary</li> </ul>	<ul style="list-style-type: none"> <li>1" – 1½" needle<sup>2</sup></li> <li>23-25 gauge needle</li> </ul>

<sup>1</sup> A ¾" 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.

<sup>2</sup> A ¾" needle is sufficient in adults weighing less than 130 lbs (60 kg).

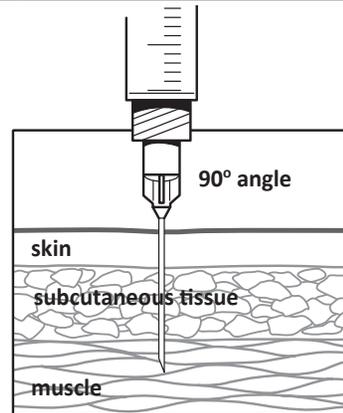
A 1" needle is sufficient in adults weighing 130–152 lbs (60–70 kg).

A 1–1½" needle is recommended in women weighing 152–200 lbs (70–90 kg) and men weighing 152–260 lbs (70–118 kg).

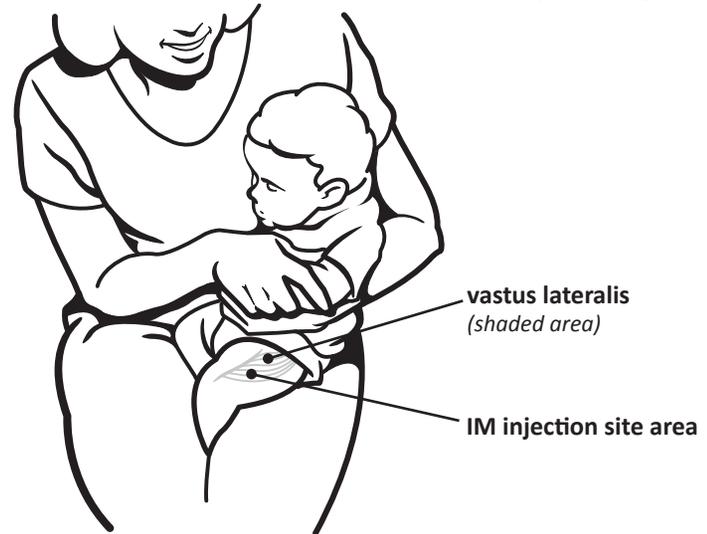
A 1½" needle is recommended in women weighing more than 200 lbs (90 kg) or men weighing more than 260 lbs (118 kg).

## Needle insertion

- Use a needle long enough to reach deep into the muscle.
- Identify the thickest part of the deltoid muscle by having the person raise their arm to define the muscle. Once defined, have patient relax arm and proceed.
- Insert needle at a 90° angle to the skin with a quick thrust.
- Retain pressure on skin around injection site with thumb and index finger while needle is inserted.
- Aspiration is not necessary.
- Multiple injections given in the same extremity should be separated as far as possible (preferably at least 1" apart).

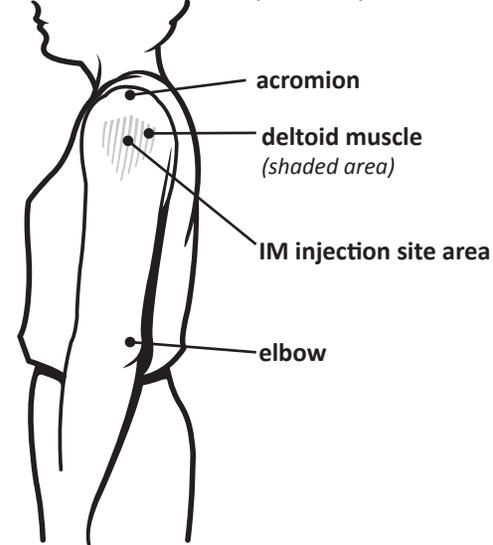


## IM site for infants and toddlers (birth to 3 years of age)



Insert needle at 90° angle into vastus lateralis muscle in anterolateral aspect of middle or upper thigh.

## IM site for older toddlers, children, adolescents, and adults



Insert needle at 90° angle into densest portion of deltoid muscle above armpit and below acromion.

Sources: Red Book 2012, American Academy of Pediatrics and CDC General Recommendations on Immunization, 2011

# How to Administer SQ (Subcutaneous) Injections

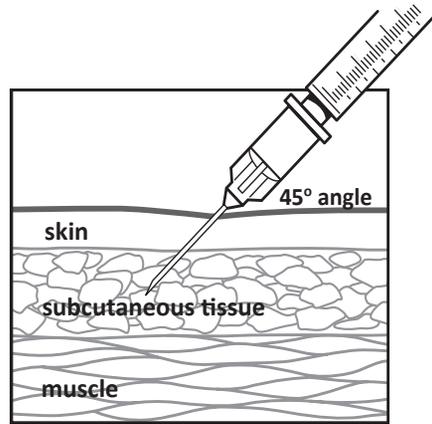
Vaccines given SQ (subcutaneous) route: MMR, MMRV, MPSV, VAR, and ZOS via.

Administer IPV and PPSV vaccines either via IM (intramuscular) or SQ route.

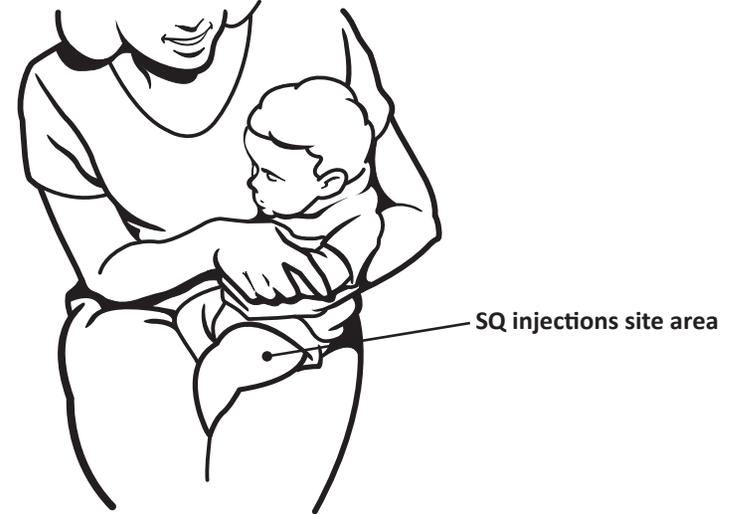
Patient's age	Site (see illustrations)	Needle size*
Infants (Birth -1 year)	<ul style="list-style-type: none"> <li>Fatty area of the thigh</li> </ul>	<ul style="list-style-type: none"> <li>5/8" needle</li> <li>23-25 gauge</li> </ul>
Toddlers (1-3 years)	<ul style="list-style-type: none"> <li>Fatty area of the thigh or outer aspect of upper arm</li> </ul>	<ul style="list-style-type: none"> <li>5/8" needle</li> <li>23-25 gauge</li> </ul>
Children (3 -11 years)	<ul style="list-style-type: none"> <li>Fatty area of the thigh or outer aspect of upper arm</li> </ul>	<ul style="list-style-type: none"> <li>5/8" needle</li> <li>23-25 gauge</li> </ul>
Adolescents/adults (11 years and older)	<ul style="list-style-type: none"> <li>Outer aspect of upper arm</li> </ul>	<ul style="list-style-type: none"> <li>5/8" needle</li> <li>23-25 gauge</li> </ul>

## Needle insertion

- Insert needle at an 45° angle to the skin.
- Pinch up on SQ tissue to prevent injecting into muscle.
- Aspiration before injection is not required.
- Multiple injections given in the same extremity should be separated as far as possible (preferably at least 1" apart).

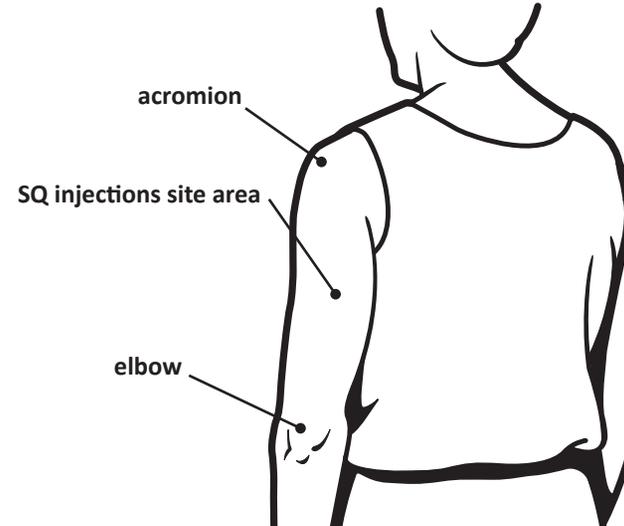


## SQ site for infants and toddlers (birth to 3 years of age)



Insert needle at 45° angle into fatty area of anterolateral thigh. Make sure you pinch up on SQ tissue to prevent injecting into muscle.

## SQ site for older toddlers, children, adolescents and adults



Insert needle at 45° angle into outer aspect of upper arm. Make sure you pinch up on SQ tissue to prevent injecting into muscle.

Sources: Red Book 2012, American Academy of Pediatrics and CDC General Recommendations on Immunization, 2011