

# How to Administer IM (Intramuscular) Injections

Administer DTaP, DT, Td, Tdap, Hib, hepA, hepB, HPV, TIV, MCV, PCV, and rabies vaccines via IM (intramuscular) route.

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 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.

<sup>2</sup> A 7/8" needle is sufficient in adults weighing less than 130 lbs (60 kg).

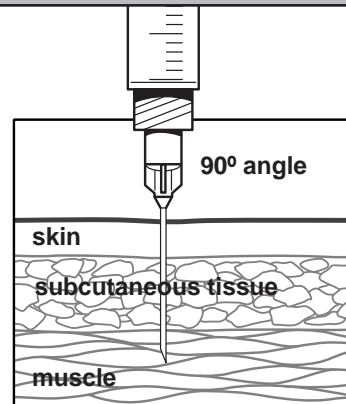
A 1" needle is sufficient in adults weighing 130–152 lbs (60–70 kg).

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

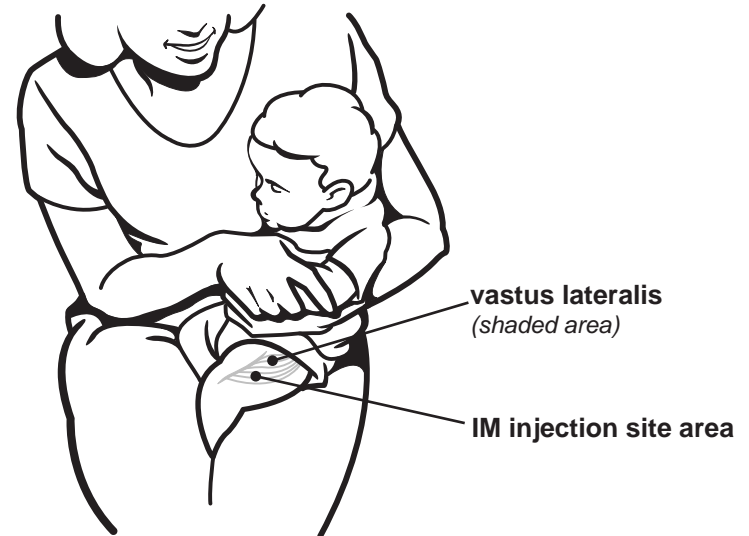
A 1½" needle is recommended in women weighing more than 200 lbs (90 kg) or men weighing more than 260 lbs (118 kg).

## Needle insertion

- Use a needle long enough to reach deep into the muscle.
- 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 before injection is not required.\*
- Multiple injections given in the same extremity should be separated as far as possible (preferably at least 1" apart).

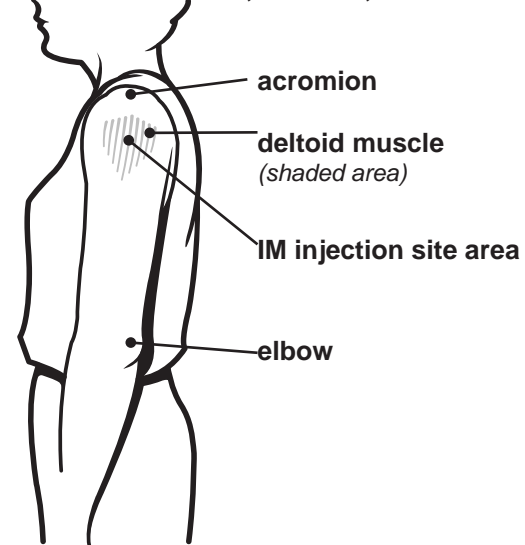


## IM site for infants and toddlers (birth to 3 years of age)



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.

\*Red Book 2009, American Academy of Pediatrics (p.19) and CDC General Recommendations on Immunization, 2011



Immunization Program  
P.O. Box 64975  
St. Paul, MN 55164-0975  
651-201-5503 or 1-800-657-3970  
[www.health.state.mn.us/immunize](http://www.health.state.mn.us/immunize)

# How to Administer SQ (Subcutaneous) Injections

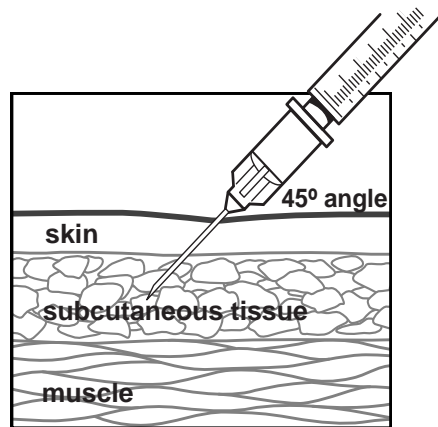
Administer MMR, MMRV, MPSV, VAR, and ZOS via SQ (subcutaneous) route.

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).

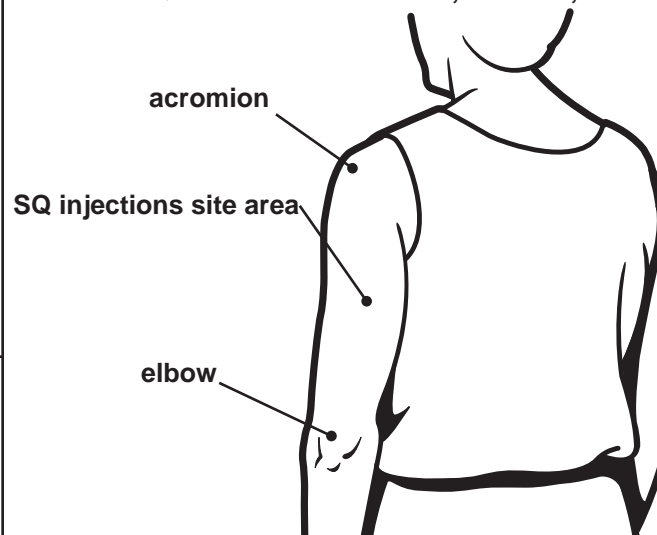


## SQ site for infants and toddlers (birth to 3 years of age)



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.

\*Red Book 2009, American Academy of Pediatrics (p.19) and CDC General Recommendations on Immunization, 2011