


How to Administer Intramuscular (IM) Injections

Administer these vaccines via intramuscular (IM) route: **DTaP, DT, Td, Tdap, HPV, Hib, hepatitis A, hepatitis B, influenza, MCV4, PCV7**. Administer **IPV** and **PPV23** either IM or SQ. When you administer all vaccines, follow the age recommendations indicated in the current Advisory Committee on Immunization Practices (ACIP) immunization schedule. Any combination vaccine is administered via Intramuscular (IM) route.

Patient's age	Site (see illustrations below)	Needle size*	Needle insertion
Infants (birth to 12 months of age)	Vastus lateralis muscle in anterolateral aspect of middle or upper thigh	7/8" - 1" needle, 23 - 25 gauge	Use a needle long enough to reach deep into the muscle. Insert needle at an 80° - 90° angle to the skin with a quick thrust.
Toddlers (12 to 36 months of age)	Vastus lateralis muscle preferred until deltoid muscle has developed adequate mass (approximately age 36 months)	7/8" - 1" needle, 23 - 25 gauge	Retain pressure on skin around injection site with thumb and index finger while needle is inserted. There are no data to document the necessity of aspiration, however, if performed and blood appears after negative pressure, the needle should be withdrawn and a new site selected.*(p.18)
Toddlers (>36 months of age), children, and adults	Densest portion of deltoid muscle - above armpit and below acromion	1" - 2" needle, 23 - 25 gauge <small>*Red Book 2000, American Academy of Pediatrics</small>	Multiple injections given in the same extremity should be separated as far apart as possible (preferably 1" - 1 1/2" with minimum of 1" apart).




IM site for infants and toddlers (birth to 36 months of age)

vastus lateralis (shaded area)

IM injection site area

Insert needle at 80° - 90° angle into vastus lateralis muscle in anterolateral aspect of middle or upper thigh.



IM site for older toddlers, children, and adults

acromion

deltoid muscle (shaded area)

IM injection site


elbow

Insert needle at 80° - 90° angle into densest portion of deltoid muscle - above armpit and below acromion.

How to Administer Subcutaneous (SQ) Injections

Administer these vaccines via subcutaneous (SQ) route: **MMR, MMRV, varicella, MPSV4**. Administer **IPV** and **PPV23** either SQ or IM. When you administer all vaccines, follow the age recommendations indicated in the current ACIP immunization schedule.

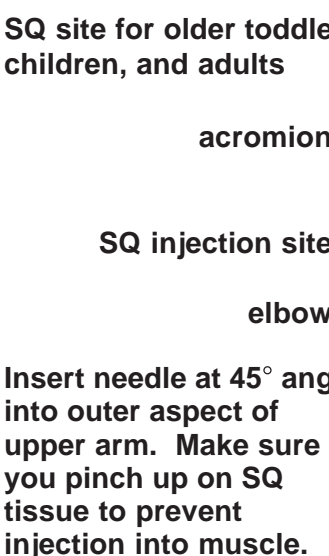
Patient's age	Site (see illustrations below)	Needle size*	Needle insertion
Infants (birth to 12 months of age)	Fatty area of the anterolateral thigh	5/8" - 3/4" needle, 23 - 25 gauge	Insert needle at an 45° angle to the skin. Pinch up on SQ tissue to prevent injection into muscle.
Toddlers (12 to 36 months of age)	Fatty area of the anterolateral aspect of the thigh or outer aspect of upper arm	5/8" - 3/4" needle, 23 - 25 gauge	There are no data to document the necessity of aspiration, however, if performed and blood appears after negative pressure, the needle should be withdrawn and a new site selected.*(p.18)
Children and adults	Outer aspect of upper arm	5/8" - 3/4" needle, 23 - 25 gauge <small>*Red Book 2000, American Academy of Pediatrics</small>	Multiple injections given in the same extremity should be separated as far apart as possible (preferably 1" - 1 1/2" with minimum of 1" apart).



SQ site for infants and toddlers (birth to 36 months of age)

SQ injection site area

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



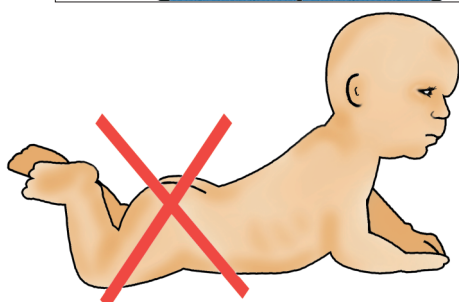
SQ site for older toddlers, children, and adults

acromion

SQ injection site

elbow

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



Do NOT administer any injections in the gluteus maximus area in infants and young children.

Adapted with permission from the Immunization, Tuberculosis, and International Travel Division, Minnesota Department of Health