

How to Administer Intramuscular and Subcutaneous Vaccine Injections to Adults

Intramuscular (IM) Injections

Administer by IM route only

- COVID-19
- *Haemophilus influenzae* type b (Hib)
- Hepatitis A (HepA)
- Hepatitis B (HepB)
- Human papillomavirus (HPV)
- Inactivated influenza vaccine (IIV)
- Meningococcal serogroups A, C, W, Y (MenACWY)
- Meningococcal serogroup B (MenB)
- Pneumococcal conjugate (PCV)
- Respiratory Syncytial Virus (RSV)
- Tetanus, diphtheria (Td), or with pertussis (Tdap)
- Zoster (RZV)

Administer by IM or Subcutaneous (Subcut) route

- Inactivated polio vaccine (IPV)
- Measles, mumps, and rubella (MMR) – MMR II (Merck)
- Pneumococcal polysaccharide (PPSV23)
- Varicella (VAR)

Injection site

Deltoid: Give in the central and thickest portion of the deltoid muscle – above the level of the armpit and approximately 2–3 fingerbreadths (~2") below the acromion process (see diagram 1). To avoid causing an injury, do not inject too high (near the acromion process) or too low.

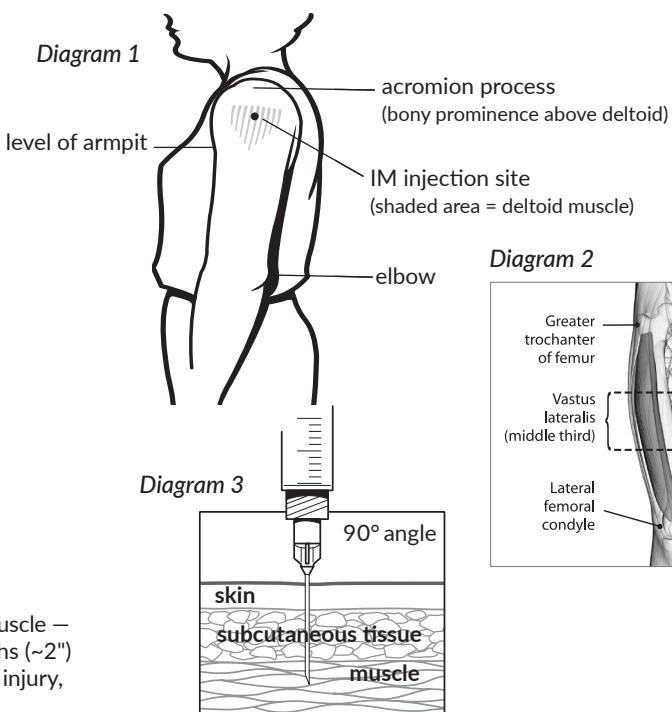
Anterolateral thigh: As an alternative, the anterolateral thigh muscle may be used; locate the outer portion of the middle third of the thigh (see diagram 2).

Needle size

22–25 gauge, 1–1½" needle (see note at right)

Needle insertion (see diagram 3)

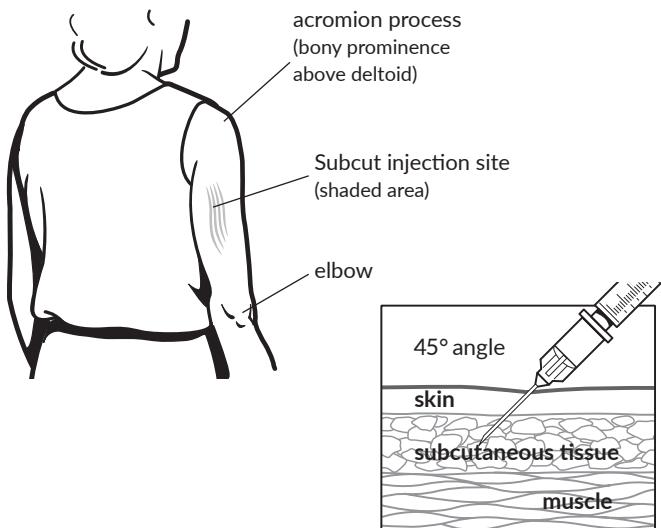
- Use a needle long enough to reach deep into the muscle.
- Insert the needle at a 90° angle to the skin with a quick thrust.
- Separate two injections given in the same deltoid muscle (or anterolateral thigh muscle, if using) by a minimum of 1".



Note: For deltoid injections, use a 1" needle in adults weighing 130–152 lbs (60–70 kg); based on the biological sex of the patient, use a 1–1½" needle in women weighing 153–200 lbs (70–90 kg) and men weighing 153–260 lbs (70–118 kg); a 1½" needle in women weighing more than 200 lbs (91 kg) or men weighing more than 260 lbs (more than 118 kg). For injections in the anterolateral thigh, use a 1½" needle for adults of any weight.

Alternate needle lengths may be used if the skin is stretched tightly and subcutaneous tissues are not bunched, as follows: 1) a ¾" needle in adults weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only, or 2) a 1" needle for administration in the thigh muscle for adults of any weight.

Subcutaneous (Subcut) Injections



Administer by Subcut route only

- MMR – Priorix (GSK)

Administer by Subcut or IM route

- MMR – MMR II (Merck)
- Pneumococcal polysaccharide (PPSV23)
- Inactivated polio vaccine (IPV)
- Varicella (VAR; chickenpox)

Administer by Subcut or intradermal (ID) route

- Mpox (Jynneos)*

Note: Subcut is indicated on the package insert. ID administration to adults (18+ years) is permitted under FDA emergency use authorization (see www.fda.gov/media/160774/download)

Injection site

Give in fatty tissue over the triceps. See the diagram.

Needle size

23–25 gauge, 5/8" needle

Needle insertion

- Pinch up on the tissue to prevent injection into the muscle.
Insert the needle at a 45° angle to the skin.
- Separate two injections given in the same area of fatty tissue by a minimum of 1".



Immunize.org

FOR PROFESSIONALS www.immunize.org / FOR THE PUBLIC www.vaccineinformation.org

www.immunize.org/catg.d/p2020a.pdf

Item #P2020a (10/23/2023)



Scan for PDF