

# How to Administer IM and SC Injections to Adults

## Intramuscular (IM) Injections

### Administer these vaccines via IM route:

Tetanus, diphtheria (Td), or with pertussis (Tdap); hepatitis A; hepatitis B; human papillomavirus (HPV); trivalent inactivated influenza (TIV); and meningococcal conjugate (MCV4). Administer polio (IPV) and pneumococcal polysaccharide vaccine (PPV) either IM or SC.

### Injection site:

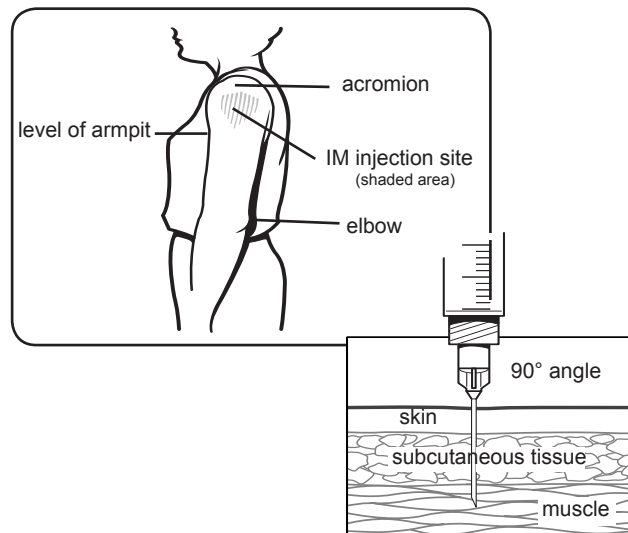
Give in the central and thickest portion of the deltoid—above the level of the armpit and below the acromion (see the diagram).

### Needle size:

22–25 gauge, 1–1½" needle

### Needle insertion:

- 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 by a minimum of 1".



## Subcutaneous (SC) Injections

### Administer these vaccines via SC route:

MMR, varicella, meningococcal polysaccharide (MPSV4), and zoster (shingles). Administer polio (IPV) and pneumococcal polysaccharide vaccine (PPV) either SC or IM.

### Injection site:

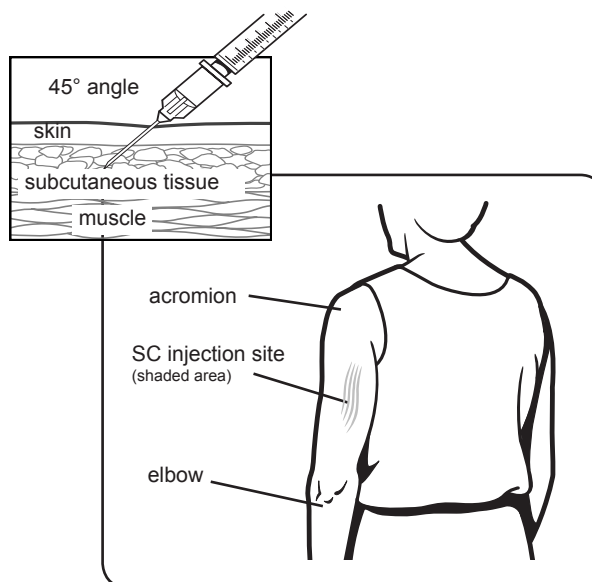
Give in fatty tissue over the triceps (see the diagram).

### 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".



Adapted by the Immunization Action Coalition, courtesy of the Minnesota Department of Health

# Administering Vaccines to Adults: Dose, Route, Site, Needle Size, and Preparation

Vaccine	Dose	Route	Site	Needle Size	Vaccine Preparation
<b>Tetanus, Diphtheria (Td) with Pertussis (Tdap)</b>	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"	Shake vial vigorously to obtain a uniform suspension prior to withdrawing each dose. Whenever solution and container permit, inspect vaccine visually for particulate matter and/or discoloration prior to administration. If problems are noted (e.g., vaccine cannot be resuspended), the vaccine should not be administered.
<b>Hepatitis A (HepA)</b>	≤18 yrs.: 0.5 mL ≥19 yrs.: 1.0 mL	IM	Deltoid muscle	22–25g, 1–1½"	
<b>Hepatitis B (HepB)</b>	≤19 yrs.: 0.5 mL ≥20 yrs.: 1.0 mL	IM	Deltoid muscle	22–25g, 1–1½"	
<b>HepA+HepB (Twinrix)</b>	≥18 yrs.: 1.0 mL	IM	Deltoid muscle	22–25g, 1–1½"	
<b>Human papillomavirus (HPV)</b>	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"	
<b>Influenza, trivalent inactivated (TIV)</b>	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"	
<b>Pneumococcal polysaccharide (PPSV)</b>	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"	
		SC	Fatty tissue over triceps	23–25g, ⅝"	<p>Reconstitute just before using. Use only the diluent supplied with the vaccine. Inject the volume of the diluent shown on the diluent label into the vial of lyophilized vaccine and gently agitate to mix thoroughly. Withdraw the entire contents and administer immediately after reconstitution.</p> <p>Discard single dose MPSV, varicella, and zoster vaccines if not used within 30 minutes after reconstitution.</p> <p><b>Note:</b> Unused reconstituted MMR vaccine and multidose MPSV vaccine may be stored at 35–46°F (2–8°C) for a limited time. The reconstituted MPSV vaccine must be used within 35 days; the reconstituted MMR vaccine must be used within 8 hours. Do not freeze either reconstituted vaccine.</p>
<b>Meningococcal, conjugated (MCV)</b>	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"	
<b>Meningococcal, polysaccharide (MPSV)</b>	0.5 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
<b>Measles, mumps, rubella (MMR)</b>	0.5 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
<b>Zoster (Zos)</b>	0.65 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
<b>Varicella (Var)</b>	0.5 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
<b>Influenza, live, attenuated (LAIV)</b>	0.2 mL (0.1 mL into each nostril)	Intranasal spray	Intranasal	NA	Consult package insert.

\*When giving intramuscular injections, a ⅝" 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 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). A ⅝" (16mm) needle may be used only if the skin is stretched tight, the subcutaneous tissue is not bunched, and injection is made at a 90-degree angle.

**Please note:** Always refer to the package insert included with each biologic for complete vaccine administration information. CDC's Advisory Committee on Immunization Practices (ACIP) recommendations for the particular vaccine should be reviewed as well. Access the ACIP recommendations at [www.immunize.org/acip](http://www.immunize.org/acip).

Brachial plexus

Deltoid M.

Axillary N.

Median & Ulnar N.

Deep brachial A.

Radial N.

Brachial A.

