Vaccine Administration

Appropriate vaccine administration is critical to vaccine effectiveness. The recommended site, route and dosage for each vaccine are based on clinical trials, practical experience and theoretical considerations. The following information provides general guidelines for administration of vaccines for those who administer vaccines, as well as those in training, education and supervisory positions. This information should be used in conjunction with professional standards for medication administration, vaccine manufacturers' product guidelines, CDC's Advisory Committee on Immunization Practices (ACIP) General Recommendations on Immunization, the American Academy of Pediatrics' (AAP) Report of the Committee on Infectious Diseases *Red Book*, and state/agency-related policies and procedures. An education plan that includes competency-based training on vaccine administration should be considered for all persons who administer vaccines to children or adults (refer to "Skills Checklist for Immunization" - page D16).

Preparation

Patient Preparation - Patients should be prepared for vaccination with consideration for their age and stage of development. Parents/guardians and patients should be encouraged to take an active role before, during and after the administration of vaccines (see "Be There for Your Child During Shots" poster at http://cdlhn.com/default.htm, search for IMM674S).

- **Screening** - All patients should be screened for contraindications and precautions for each scheduled vaccine. Many state immunization programs and other organizations have developed and make available standardized screening tools. Basic screening questions can be found in Chapter 2. Sample screening forms for children and adults are available from the Immunization Action Coalition (www.immunize.org).

- **Vaccine Safety & Risk Communication** - Parents/guardians and patients are exposed through the media to information about vaccines, some of which is inaccurate or misleading. Healthcare providers should be prepared to discuss the benefits and risks of vaccines using Vaccine Information Statements (VIS) and other reliable resources. Establishing an open dialogue provides a safe, trust-building environment in which individuals can freely evaluate information, discuss vaccine concerns and make informed decisions regarding immunization (see Chapter 4 and Appendices E and F).

- **Atraumatic Care** - Vaccine safety issues and the need for multiple injections have increased the concerns and anxiety associated with immunizations. Healthcare providers need to display confidence and establish an environment that promotes a sense of security and trust for the patient and family, utilizing a variety of techniques to minimize the stress and discomfort associated with receiving injections. This is particularly important when administering vaccines to children.

  - **Positioning & Comforting Restraint** - The healthcare provider must accommodate for the patient's comfort, safety, age, activity level, and the site of administration when considering patient positioning and restraint. For a child, the parent/guardian should be encouraged to hold the child during administration. If the parent is uncomfortable, another person may assist or the patient may be

positioned safely on an examination table (refer to "Comforting Restraint for Immunizations" - page D23).

- **Pain Control** - Pain is a subjective phenomenon influenced by multiple factors, including an individual's age, anxiety level, previous healthcare experiences, and culture. Consideration for these factors is important as the provider develops a planned approach to management of injection pain (see “Be There for Your Child During Shots” poster).

  - *Topical Anesthetics* or a vapocoolant spray may be applied to decrease pain at the injection site. These products should be used only for the ages recommended and as directed by the product manufacturer.

  - *Analgesic Agents* - A non-aspirin containing pain reliever may be considered to decrease discomfort and fever following vaccination. These products should be used only in age-appropriate doses.

  - *Diversionary Techniques* - Age-appropriate non pharmacologic techniques may provide distraction from pain associated with injections. Diversion can be accomplished through a variety of techniques, some of which are outlined on the “Be There for Your Child During Shots” poster.

  - *Dual Administrators* - Some providers favor the technique of two individuals simultaneously administering vaccines at separate sites. The premise is that this procedure may decrease anxiety from anticipation of the next injection(s). The effectiveness of this procedure in decreasing pain or stress associated with vaccine injections has not been evaluated.

Infection Control - Healthcare providers should follow Standard Precautions to minimize the risks of spreading disease during vaccine administration.

- **Handwashing** - The single, most effective disease prevention activity is good handwashing. Hands should be washed thoroughly with soap and water or cleansed with an alcohol-based waterless antiseptic between patients, before vaccine preparation or any time hands become soiled, e.g. diapering, cleaning excreta.

- **Gloving** - Gloves are not required to be worn when administering vaccines unless the person administering the vaccine is likely to come into contact with potentially infectious body fluids or has open lesions on the hands. It is important to remember that gloves cannot prevent needlestick injuries.

- **Needlestick Injuries** should be reported immediately to the site supervisor, with appropriate care and follow-up given as directed by state/local guidelines. Safety needles or needle-free injection devices should be used if available to reduce the risk of injury.

- **Equipment Disposal** - Used needles should not be detached from syringes, recapped or cut before disposal. All used syringe/needle devices should be placed in puncture proof containers to prevent accidental needlesticks and reuse. Empty or expired vaccine vials are considered medical waste and

should be disposed of according to state regulations.

Vaccine Preparation - Proper vaccine handling and preparation is critical in maintaining the integrity of the vaccine during transfer from the manufacturer's vial to the syringe and ultimately to the patient.

- **Equipment Selection**

  - **Syringe Selection** - A separate needle and syringe should be used for each injection. A parenteral vaccine may be delivered in either a 1-mL or 3-mL syringe as long as the prescribed dosage is delivered. Syringe devices with sharps engineered sharps injury protection are availble, recommended by OSHA, and required in many states to reduce the incidence of needle stick injuries and potential disease transmission. Personnel should be involved in evaluation and selection of these products. Staff should receive training with these device before using them in the clinical area.

  - **Needle Selection** - Vaccine must reach the desired tissue site for optimal immune response. Therefore, needle selection should be based upon the prescribed route, size of the individual, volume and viscosity of the vaccine, and injection technique. (See Subcutaneous & Intramuscular Injections, below.) Typically, vaccines are not highly viscous, and therefore a fine gauge needle (22-25 gauge) can be used.

  - **Needle-Free Injection** - A new generation of needle-free vaccine delivery devices has been developed in an effort to decrease the risks of needlestick injuries to healthcare workers and to prevent improper reuse of syringes and needles. For more information on needle-free injection technology, see the CDC website: www.cdc.gov/od/science/iso/vaxtech/nfit/.

- **Inspecting Vaccine** - Each vaccine vial should be carefully inspected for damage or contami nation prior to use. The expiration date printed on the vial or box should be checked. Vaccine can be used through the last day of the month indicated by the expiration date unless otherwise stated on the package labeling. Expired vaccine should never be used.

- **Reconstitution** - Some vaccines are prepared in a lyophilized form that requires reconstitution, which should be done according to manufacturer guidelines. Diluent solutions vary; use only the specific diluent supplied for the vaccine. Once reconstituted, the vaccine must be either administered within the time guidelines provided by the manufacturer or discarded. Changing the needle after reconstitution of the vaccine is not necessary unless the needle has become contaminated or bent. Continue with standard medication preparation guidelines.

- **Prefilling Syringes** - CDC strongly discourages filling syringes in advance, because of the increased risk of administration errors. Once the vaccine is in the syringe it is difficult to identify the type or brand of vaccine. Other problems associated with this practice are vaccine wastage, and possible bacterial growth in vaccines that do not contain a preservative. Furthermore, medication administration guidelines state that the individual who administers a medication should be the one to draw up and prepare it. An alternative to prefilling syringes is to use filled syringes supplied by the vaccine manufacturer. Syringes other than those filled by the manufacturer are designed for immediate

administration, not for vaccine storage.

In certain circumstances, such as a large influenza clinic, more than one syringe can be filled. One person should prefill only a few syringes at a time, and the same person should administer them. Any syringes left at the end of the clinic day should be discarded.

Under no circumstances should MMR, varicella, or zoster vaccines ever be reconstituted and drawn prior to the immediate need for them. These live virus vaccines are unstable and begin to deteriorate as soon as they are reconstituted with diluent.

- **Labeling** - Once a vaccine is drawn into a syringe, the content should be indicated on the syringe. There are a variety of methods for identifying or labeling syringes (e.g. keep syringes with the appropriate vaccine vials, place the syringes in a labeled partitioned tray, or use color coded labels or preprinted labels).

Strategies to Prevent Immunization Administration Errors

1. When possible, involve staff in the selection of vaccine products to be used in your facility. Orient new staff to vaccines your office uses and validate their knowledge and skills about vaccine administration. Train all staff on the use and administration of new vaccines.

2. Keep current reference materials available for staff on each vaccine used in your facility. Keep reference sheets for timing and spacing, recommended sites, routes, and needle lengths posted for easy reference in your medication preparation area.

3. Rotate vaccines so that those with the shortest expiration dates are in the front of the storage unit. Use these first and frequently check the storage unit to remove and discard any expired vaccine.

4. Consider the potential for product mix-ups when storing vaccines. Do not store sound-alike and look-alike vaccines next to each other. Label storage containers or baskets with the age indications for each vaccine.

5. Administer only vaccines that you have prepared for administration. Triple-check your work before you administer a vaccine and ask other staff to do the same.

6. Counsel parents and patients on vaccines to be administered and the importance of maintaining immunization records on all family members. Educated clients may notice a potential error and help prevent it.

Administering Vaccines: Dose, Route, Site, and Needle Size

Vaccines	Dose	Route
Diphtheria, Tetanus, Pertussis (DTaP, DT, Tdap, Td)	0.5 mL	IM
***Haemophilus influenzae* type b (Hib)**	0.5 mL	IM
Hepatitis A (HepA)	≤18 yrs: 0.5 mL ≥19 yrs: 1.0 mL	IM
Hepatitis B (HepB) **Persons 11–15 yrs may be given Recombivax HB® (Merck) 1.0 mL adult formulation on a 2-dose schedule.*	≤19 yrs: 0.5 mL* ≥20 yrs: 1.0 mL	IM
Human papillomavirus (HPV)	0.5 mL	IM
Influenza, live attenuated (LAIV)	0.2 mL	Intranasal spray
Influenza, trivalent inactivated (TIV)	6–35 mos: 0.25 mL ≥3 yrs: 0.5 mL	IM
Measles, mumps, rubella (MMR)	0.5 mL	SC
Meningococcal – conjugate (MCV)	0.5 mL	IM
Meningococcal – polysaccharide (MPSV)	0.5 mL	SC
Pneumococcal conjugate (PCV)	0.5 mL	IM
Pneumococcal polysaccharide (PPSV)	0.5 mL	IM or SC
Polio, inactivated (IPV)	0.5 mL	IM or SC
Rotavirus (RV)	2.0 mL	Oral
Varicella (Var)	0.5 mL	SC
Zoster (Zos)	0.65 mL	SC
Combination Vaccines		
DTaP+HepB+IPV (Pediarix®) **DTaP+Hib+IPV (Pentacel®)** **DTaP+Hib (Trihibit®)** **DTaP+IPV (Kinrix®)** **Hib+HepB (Comvax®)**	0.5 mL	IM
MMR+Var (ProQuad®)	≤12 yrs: 0.5 mL	SC
HepA+HepB (Twinrix®)	≥18 yrs: 1.0 mL	IM

Injection Site and Needle Size

Subcutaneous (SC) injection

Use a 23–25 gauge needle. Choose the injection site that is appropriate to the person's age and body mass.

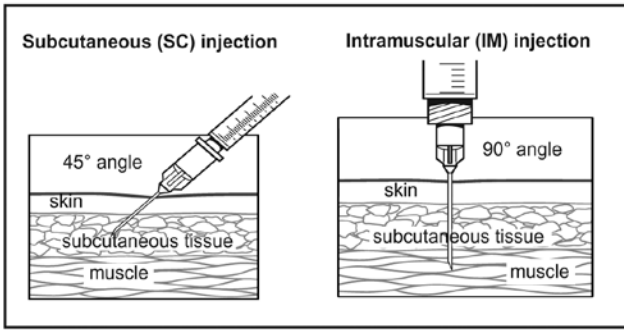
Age	Needle Length	Injection Site
Infants (1–12 mos)	⅝"	Fatty tissue over anterolateral thigh muscle
Children 12 mos or older, adolescents, and adults	⅝"	Fatty tissue over anterolateral thigh muscle or fatty tissue over triceps

Intramuscular (IM) injection

Use a 22–25 gauge needle. Choose the injection site and needle length appropriate to the person's age and body mass.

Age	Needle Length	Injection Site
Newborns (1st 28 days)	⅝"*	Anterolateral thigh muscle
Infants (1–12 mos)	1"	Anterolateral thigh muscle
Toddlers (1–2 yrs)	1–1¼" ⅝–1"*	Anterolateral thigh muscle or deltoid muscle of arm
Children & teens (3–18 years)	⅝–1"* 1"–1¼"	Deltoid muscle of arm or anterolateral thigh muscle
Adults 19 yrs or older		
Male or female less than 130 lbs	⅝–1"*	Deltoid muscle of arm
Female 130–200 lbs Male 130–260 lbs	1–1½"	Deltoid muscle of arm
Female 200+ lbs Male 260+ lbs	1½"	Deltoid muscle of arm

**A ⅝" needle may be used only if the skin is stretched tight, 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.

Technical content reviewed by the Centers for Disease Control and Prevention, February 2009.

www.immunize.org/catg.d/p3085.pdf • Item #P3085 (2/09)

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

Vaccine	Dose	Route	Site	Needle Size	Vaccine Preparation
Tetanus, Diphtheria (Td) with Pertussis (Tdap)	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.
Hepatitis A (HepA)	≤18 yrs.: 0.5 mL ≥19 yrs.: 1.0 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
Hepatitis B (HepB)	≤19 yrs.: 0.5 mL ≥20 yrs.: 1.0 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
HepA+HepB (Twinrix)	≥18 yrs.: 1.0 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
Human papillomavirus (HPV)	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
Influenza, trivalent inactivated (TIV)	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
Pneumococcal polysaccharide (PPSV)	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
		SC	Fatty tissue over triceps	23–25g, ⅝"	
Meningococcal, conjugated (MCV)	0.5 mL	IM	Deltoid muscle	22–25g, 1–1½"*	
Meningococcal, polysaccharide (MPSV)	0.5 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	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. Discard single dose MPSV, varicella, and zoster vaccines if not used within 30 minutes after reconstitution. **Note:** 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.
Measles, mumps, rubella (MMR)	0.5 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
Zoster (Zos)	0.65 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
Varicella (Var)	0.5 mL	SC	Fatty tissue over triceps	23–25g, ⅝"	
Influenza, live, attenuated (LAIV)	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 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 >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.

Technical content reviewed by the Centers for Disease Control and Prevention, February 2009.

www.immunize.org/catg.d/p3084.pdf • Item #P3084 (2/09)

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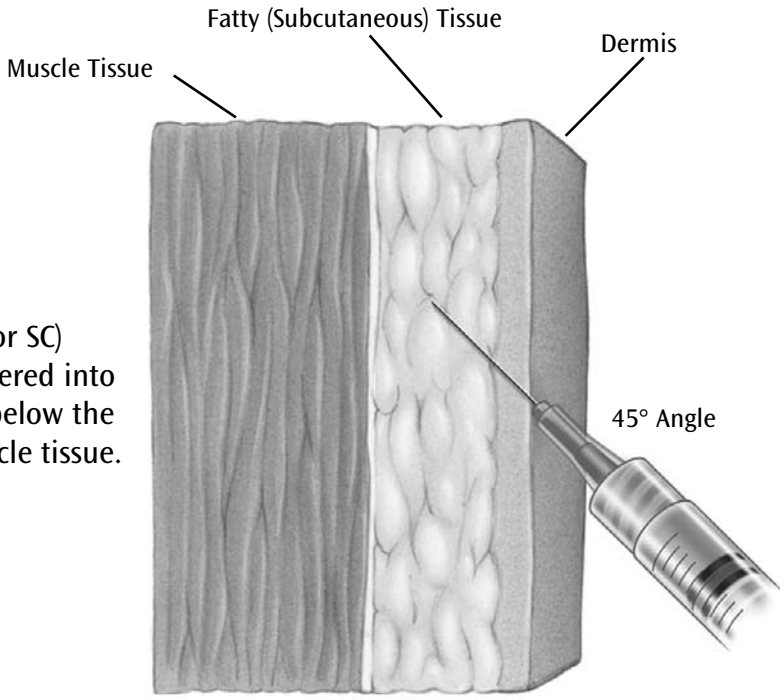
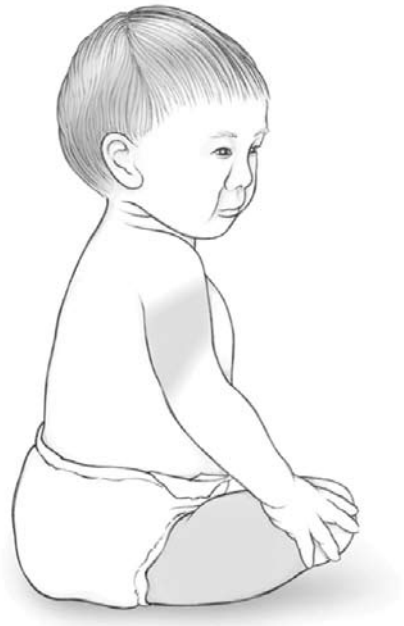


Lynne Larson, www.biovisuals.com

- **Subcutaneous** (Sub-Q or SC) injections are administered into the fatty tissue found below the dermis and above muscle tissue.

- **Site** - Subcutaneous tissue can be found all over the body. The usual sites for vaccine administration are the thigh (for infants <12 months of age) and the upper outer triceps of the arm (for persons ≥12 months of age). If necessary, the upper outer triceps area can be used to administer subcutaneous injections to infants.



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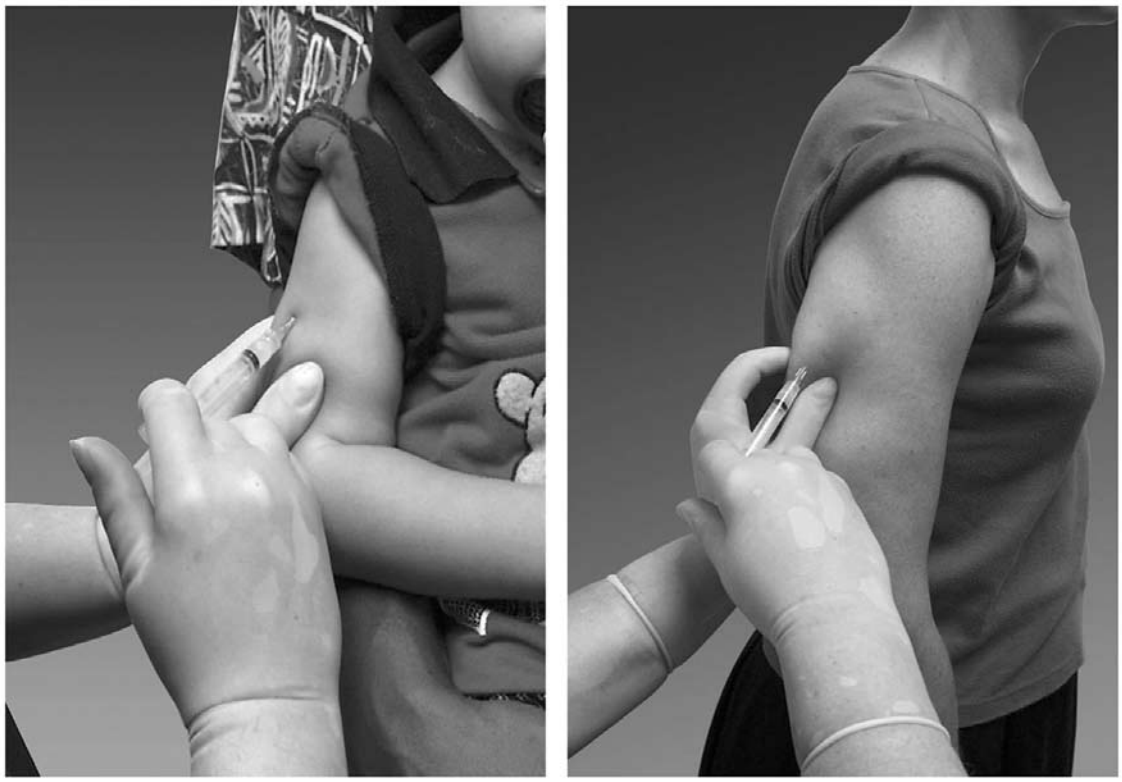
- **Needle Gauge & Length** - 5/8-inch, 23- to 25-gauge needle

- **Technique**

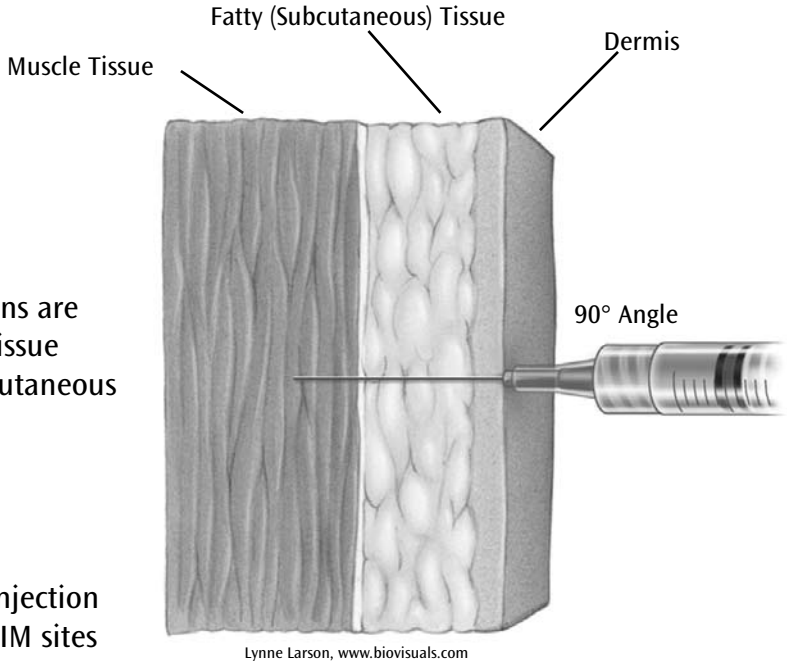
  - Follow standard medication administration guidelines for site assessment/selection and site preparation.

  - To avoid reaching the muscle, pinch up the fatty tissue, insert the needle at a 45° angle and inject the vaccine into the tissue.

  - Withdraw the needle and apply light pressure to the injection site for several seconds with a dry cotton ball or gauze.



Subcutaneous Administration Techniques



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- **Intramuscular** (IM) injections are administered into muscle tissue below the dermis and subcutaneous tissue.

- **Site** - Although there are several IM injection sites on the body, the recommended IM sites for vaccine administration are the vastus lateralis muscle (anterolateral thigh) and the deltoid muscle (upper arm). The site depends on the age of the individual and the degree of muscle development.

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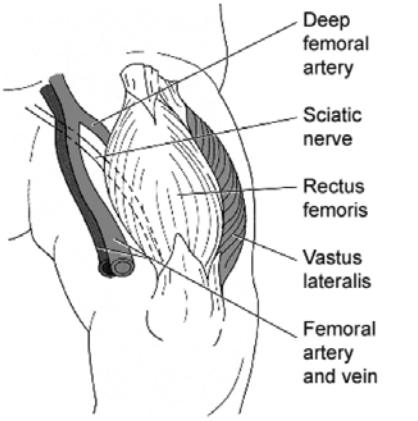
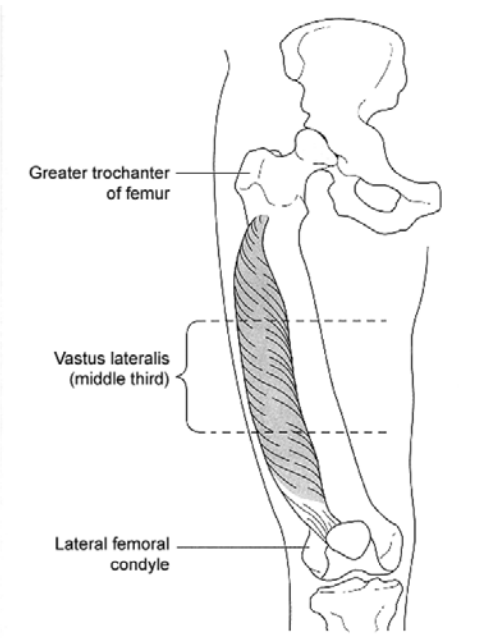
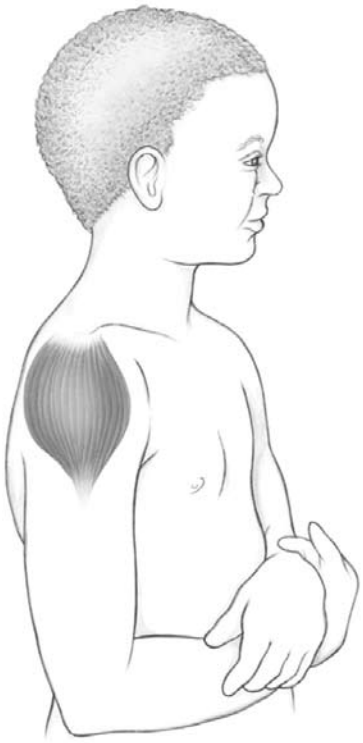


The vastus lateralis muscle of the upper thigh used for intramuscular injections.



The vastus lateralis site of the right thigh, used for an intramuscular injection.



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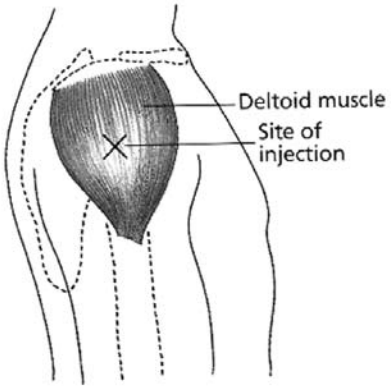


- **Needle Gauge** - 22- to 25-gauge needle

- **Needle Length** - For all intramuscular injections, the needle should be long enough to reach the muscle mass and prevent vaccine from seeping into subcutaneous tissue, but not so long as to involve underlying nerves, blood vessels, or bone. The vaccinator should be familiar with the anatomy of the area into which the vaccine will be injected.

  Decision on needle size and site of injection must be made for each person on the basis of the size of the muscle, the thickness of adipose tissue at the injection site, the volume of the material to be administered, injection technique, and the depth below the muscle surface into which the material is to be injected

  - *Infants (Younger Than 12 Months)*
    For the majority of infants, the anterolateral aspect of the thigh is the recommended site for injection because it provides a large muscle mass. The muscles of the buttock have not been used for administration of vaccines in infants and children because of concern about potential injury to the sciatic nerve, which is well documented after injection of antimicrobial agents into the buttock. If the gluteal muscle must be used, care should be taken to define the anatomic landmarks.*

*If the gluteal muscle is chosen, injection should be administered lateral and superior to a line between the posterior superior iliac spine and the greater trochanter or in the ventrogluteal site, the center of a triangle bounded by the anterior superior iliac spine, the tubercle of the iliac crest, and the upper border of the greater trochanter.

Injection technique is the most important factor to ensure efficient intramuscular vaccine delivery. If the subcutaneous and muscle tissue are bunched to minimize the chance of striking bone, a 1-inch needle is required to ensure intramuscular administration in infants. For the majority of infants, a 1-inch, 22-25-gauge needle is sufficient to penetrate muscle in an infant's thigh. For new born (first 28 days of life) and premature infants, a 5/8 inch needle usually is adequate if the skin is stretched flat between thumb and forefinger and the needle inserted at a 90-degree angle to the skin.

- *Toddlers and Older Children (12 Months through 10 Years)*
  The deltoid muscle should be used if the muscle mass is adequate. The needle size for deltoid site injections can range from 22 to 25 gauge and from 5/8 to 1 inch on the basis of the size of the muscle and the thickness of adipose tissue at the injection site. A 5/8-inch needle is adequate only for the deltoid muscle and only if the skin is stretched flat between thumb and forefinger and the needle inserted at a 90° angle to the skin. For toddlers, the anterolateral thigh can be used, but the needle should be at least 1 inch in length.

- *Adolescents and Adults (11 Years or Older)*
  For adults and adolescents, the deltoid muscle is recommended for routine intramuscular vaccinations. The anterolateral thigh also can be used. For men and women weighing less than 130 lbs (60 kg) a 5/8-1-inch needle is sufficient to ensure intramuscular injection. For women weighing 130-200 lbs (60-90 kg) and men 130-260 lbs (60-118kg), a 1-1½-inch needle is needed. For women weighing more than 200 lbs (90 kg) or men weighing more than 260 lbs (118 kg), a 1½-inch needle is required.

- **Technique**

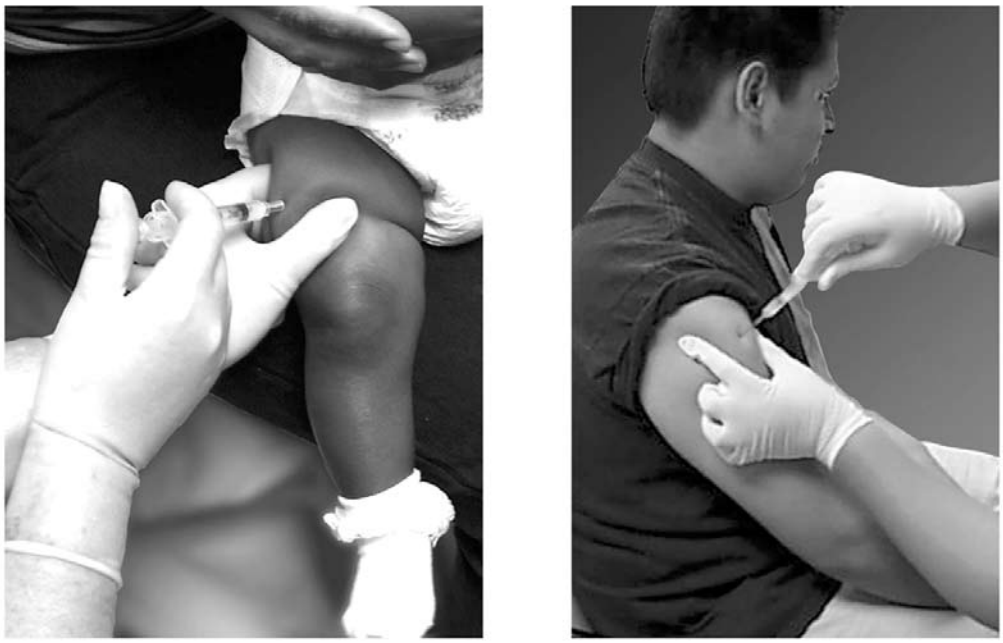
  - Follow standard medication administration guidelines for site assessment/selection and site preparation.

  - To avoid injection into subcutaneous tissue, spread the skin of the selected vaccine administration site taut between the thumb and forefinger, isolating the muscle. Another technique, acceptable mostly for pediatric and geriatric patients, is to grasp the tissue and "bunch up" the muscle.

  - Insert the needle fully into the muscle at a 90° angle and inject the vaccine into the tissue.

  - Withdraw the needle and apply light pressure to the injection site for several seconds with a dry cotton ball or gauze.

• **Aspiration** - Aspiration is the process of pulling back on the plunger of the syringe prior to injection to ensure that the medication is not injected into a blood vessel. Although this practice is advocated by some experts, the procedure is not required because no large blood vessels exist at the recomended injection sites.



Intramuscular Administration Techniques

- **Multiple Vaccinations** - When administering multiple vaccines, NEVER mix vaccines in the same syringe unless approved for mixing by the Food and Drug Administration (FDA). If more than one vaccine must be administered in the same limb, the injection sites should be separated by 1-2 inches so that any local reactions can be differentiated. Vaccine doses range from 0.2 mL to 1 mL. The recommended maximum volume of medication for an IM site, varies among references and depends on the muscle mass of the individual. However, administering two IM vaccines into the same muscle would not exceed any suggested volume ranges for either the vastus lateralis or the deltoid muscle in any age group. The option to also administer a subcutaneous vaccine into the same limb, if necessary, is acceptable since a different tissue site is involved.

  If a vaccine and an immune globulin preparation are administered simultaneously (e.g., Td/Tdap and tetanus immune globulin [TIG] or hepatitis B vaccine and hepatitis B immune globulin [HBIG]), a separate anatomic site should be used for each injection. The location of each injection should be documented in the patient's medical record.

- **Nonstandard Administration** - Deviation from the recommended route, site and dosage of vaccine is strongly discouraged and can result in inadequate protection. In situations where nonstandard administration has occurred, refer to the ACIP General Recommendation on Immunization, *MMWR* 2006; 55 (RR-15), for specific guidance.

Special Situations

Bleeding Disorders - Individuals with a bleeding disorder or who are receiving anticoagulant therapy may develop hematomas in IM injection sites. Prior to administration of IM vaccines the patient or family should be instructed about the risk of hematoma formation from the injection. Additionally, a physician familiar with the patient's bleeding disorder or therapy should be consulted regarding the safety of administration by this route. If the patient periodically receives hemophilia replacement factor or other similar therapy, IM vaccine administration should ideally be scheduled shortly after replacement therapy. A 23-gauge or finer needle should be used and firm pressure applied to the site for at least 2 minutes. The site should not be rubbed or massaged.

Latex Allergy - Administration of a vaccine supplied in a vial or syringe that contains natural rubber (refer to product information) should not be administered to an individual with a history of a severe (anaphylactic) allergy to latex, unless the benefit of vaccination clearly outweighs the risk of an allergic reaction. These situations are rare. Medical consultation and direction should be sought regarding vaccination. A local or contact sensitivity to latex is not a contraindication to vaccination.

Syncopal or Vasovagal Response ("fainting") may occur during vaccine administration, especially with adolescents and adults. Because individuals may fall and sustain injury as a result, the provider should have the patient sit during injection(s). A syncopal or vasovagal response is not common and is not an allergic reaction. However, if syncope develops, the provider should observe and administer supportive care until the patient is recovered.

Anaphylaxis (a life-threatening acute allergic reaction) - Each facility that administers vaccines should have a protocol, procedures and equipment to provide initial care for suspected anaphylaxis. Facility staff should be prepared to recognize and respond appropriately to this type of emergency situation. All staff should maintain current CPR certification. Emergency protocols, procedures and equipment/supplies should be reviewed periodically. For additional information on medical management of vaccine reactions in children, teens, and adults, see the 2006 ACIP General Recommendations on Immunization (p. 19), the 2006 AAP *Red Book* (pp. 64-66), and pages D28-D31 of this appendix. Although both fainting and allergic reactions are rare, vaccine providers should strongly consider observing patients for 15 minutes after they are vaccinated.

Documentation

All vaccines administered should be fully documented in the patient's permanent medical record. Documentation should include:

1. Date of administration
2. Name or common abbreviation of vaccine
3. Vaccine lot number
4. Vaccine manufacturer

5. Administration site

6. Vaccine Information Statement (VIS) edition date (found in the lower right corner of the back of the VIS).

7. Name and address of vaccine administrator. This should be the address where the record is kept. If immunizations are given in a shopping mall, for example, the address would be the clinic where the permanent record will reside.

Facilities that administer vaccines are encouraged to participate in state/local immunization information systems. The patient or parent should be provided with an immunization record that includes the vaccines administered with dates of administration.

The California Department of Health Services' Immunization Branch
has developed a complete package of resources on vaccine administration, available at
http://www.eziz.org/pages/vaccineadmin.html