

Depo Lupron and Testosterone are both given by intramuscular injection. The following is a guideline on their administration. Eileen Durham, RN, NP Version 12 Jan 2010

Description

Intramuscular (IM) injections are given directly into the central area of selected muscles. There are a number of sites that are suitable for IM injections; there are three sites that are most commonly used in this procedure described below. The volume of viscosity of the medication to be injected determines the site that should be used. IM injections cause stretching of the muscle fiber so the larger the muscle used the less discomfort.

Intramuscular Injection Sites

Depo Lupron

Depo Lupron 3 month preparation should **only** be injected into the Gluteus medius due to the viscosity and volume of the medication approx. 1.5 – 2 cc.

Depo Lupron 1 month preparation can be injection into the vastus lateralis or the gluteus medius.

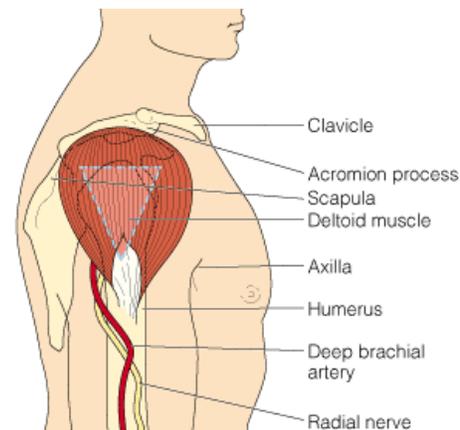
Testosterone

Testosterone administered to adolescents **and adults** can be injected into any of the sites listed below, as long as the volume is 1 cc or less. For a volume of 1.5 use the vastus lateralis or Gluteus medius, if the volume is 2 cc you must use the largest muscle the Gluteus medius. If the volume is greater than 2 cc you must divide the dose and give 2 injections as the maximum volume in the Gluteal muscle is 2 cc.

Testosterone administered to **infants and toddlers** use only the anteriolateral aspect of the thigh.

Deltoid muscle

The deltoid muscle located laterally on the upper arm can be used for intramuscular injections. Originating from the Acromion process of the scapula and inserting approximately one-third of the way down the humerus, the deltoid muscle can be used readily for IM injections if there is sufficient muscle mass to justify use of this site. The deltoid's close proximity to the radial nerve and radial artery means that careful consideration and palpation of the muscle is required to find a safe site for penetration of the needle. There are various methods for defining the boundaries of this muscle.



Vastus lateralis muscle

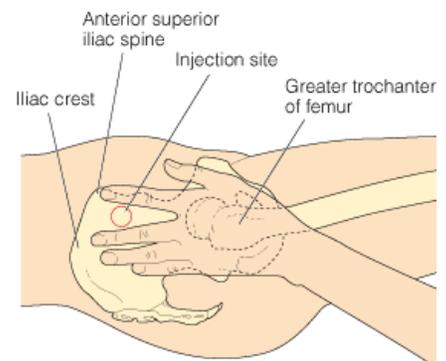
The vastus lateralis muscle forms part of the quadriceps muscle group of the upper leg and can be found on the anteriolateral aspect of the thigh. This muscle is more commonly used as the site for IM injections as it is generally thick and well formed in individuals of all ages and is not located close to any major arteries or nerves. It is also readily accessed. The middle third of the muscle is used to define the injection site. This third can be determined by visually dividing the length of the muscle that originates on the greater trochanter of the femur and inserts on the upper border of the patella and tibial tuberosity through the patella ligament into thirds. Palpation of the muscle is required to determine if



sufficient body and mass is present to undertake the procedure.

Gluteus medius muscle

The gluteus medius muscle, which is also known as the ventrogluteal site, is the third commonly used site for IM injections. The correct area for injection can be determined in the following manner. Place the heel of the hand of the greater trochanter of the femur with fingers pointing towards the patient's head. The left hand is used for the right hip and vice versa. While keeping the palm of the hand over the greater trochanter and placing the index finger on the anterior superior iliac spine, stretch the middle finger dorsally palpating for the iliac crest and then press lightly below this point. The triangle formed by the iliac crest, the third finger and index finger forms the area suitable for intramuscular injection.



Determining which site is most appropriate will depend upon the patient's muscle density at each site, the type and nature of medication you wish to administer, and of course the patient's preferred site for injections.

Preparation

- Locate the correct area for injection using the above guidelines. Clean the site with an alcohol swab or other cleansing agent.
- Use the provided needle and syringe that are provided for the Depo Lupron
- Syringe size for testosterone use a 3 cc syringe
- For Testosterone the use a 1 inch needle and depending on the age of the child and their weight use a 22 – 18 gauge needle to draw and inject. Testosterone is very viscous and difficult to draw and inject with a smaller gauge needle.
- Draw medication into syringe
- When ready to inject, holding the syringe with the thumb and forefinger of the dominant hand, pierce the skin and enter the muscle. This process should be done quickly with sufficient control so as to lessen the discomfort of the patient.
- Withdraw the needle and syringe quickly to minimize discomfort. The site may be briefly massaged, depending on the medication given. Some medication manufacturers advise against massaging the site after injection, as it reduces the effect and intention of the medication by dispersing it too readily or over too large an area. Manufacturers' recommendations should be checked.
- Discard the used syringe and needle intact as soon as possible in an appropriate disposal receptacle.
- Check the site at least once more a short time after the injection to ensure that no bleeding, swelling or any other signs of reaction to the medication are present. Monitor the patient for other signs of side effects, especially if it is the first time the patient is receiving the medication.
- Document all injections given and any other relevant information.

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