

Injection Site Selection

B12 should be administered by intramuscular injection into the deltoid muscle in the upper arm or the anterolateral aspect of the thigh. Infants under one year should receive their immunisations into the anterolateral aspect of the thigh because the deltoid muscle is not sufficiently well enough developed at this age.

Giving a IM injection in to the deltoid muscle

Needle size/length:

Intramuscular injections in the deltoid muscle will require a needle length of at least 1-1 ½ inches for adults.

Most commonly a 1 inch needle length will be used in adults for an IM injection in the deltoid. However, this is where you will need to think critically. Look at the patient and if the patient has a lot of adipose/fatty tissue over the deltoid muscle a 1 1/2 inch needle length (commonly referred to as a bariatric needle), may be best.

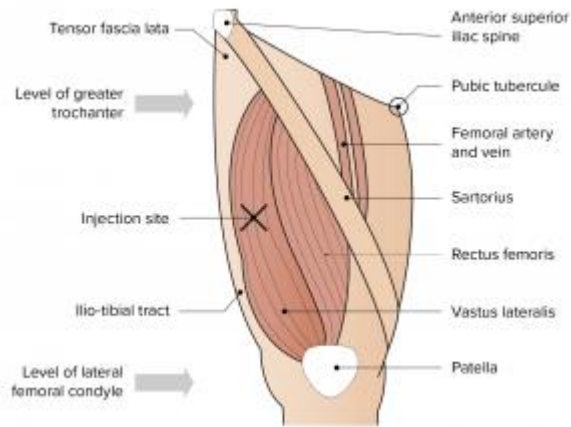
The deltoid in an adult can hold no more than about **2 millilitres of a solution.**

The deltoid muscle has a triangular shape and is easy to locate and access, but is commonly under developed in adults. Begin by having the patient relax the arm. The patient can be standing, sitting, or lying down. To locate the landmark for the deltoid muscle, expose the upper arm and find the acromion process by palpating the bony prominence. The injection site is in the middle of the deltoid muscle, about 2.5 to 5 cm (1 to 2 inches) below the acromion process. To locate this area, lay three fingers across the deltoid muscle and below the acromion process. The injection site is generally three finger widths below, in the middle of the muscle

If a higher amount of solution is needed, the solution is thick, or the solution is known to cause irritation, use another muscle like the **anterolateral aspect of the thigh.**

The injection site is halfway down the vastus lateralis, which is the muscle on the outside of the thigh. Markers include the greater trochanter, and the lateral femoral condyle – the injections site is about halfway between these two levels.

Lie the patient down in the supine or lateral position. Ensure that the injection site is clean and the skin intact. Inject at a 90 degree angle, aspirate ensuring no blood is drawn, inject slowly. Withdraw the needle and press the site firmly with a gauze apply a plaster if necessary.



Aspiration is currently not advised in intramuscular injections. However, some practitioners prefer to do so and it should not be considered bad practice.

- Aspiration** refers to the action of pulling back on the plunger for 5 seconds prior to injecting medication. Current practice in the acute care setting is to aspirate IM injections to check for blood return in the syringe. Lack of blood in the syringe confirms that the needle is in the muscle and not in a blood vessel. If blood is aspirated, remove the needle, discard it appropriately, and re-prepare and administer the medications.