

## Subcutaneous (SC) Injection

**OBJECTIVE:** To administer a subcutaneous (SC) drug to upper arm region.

**MATERIALS:** Subcutaneous drug, syringe, needle (26-30 G, 13-16 mm), clean gloves, alcohol swab, sterile gauze, adhesive tape.

D: Appropriately done PD: Partially done ND: Not done/Incorrectly done

### STEP/TASK

#### Preparation

1. Introduce yourself to the patient.
2. Confirm patient's ID.
3. Explain the procedure and reassure the patient.
4. Get patient's consent.
5. Wash hands.
6. Prepare the necessary materials.  
(Medication should be drawn up into the syringe beforehand and expiration dates checked).
7. Check the doctor's order with the drug to be administered to ensure correct drug and dosage.
8. Put on a pair of clean gloves.
9. Position the patient in a sitting position and expose her/his upper arm.  
(Maintain the patient's privacy and dignity).

#### The procedure

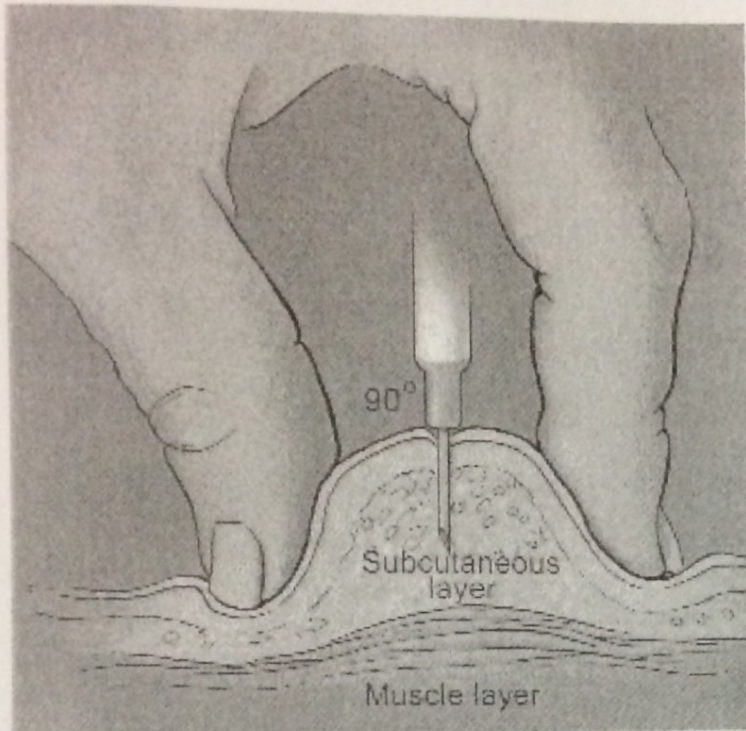
10. Identify the injection site\* (Select a site free of skin lesions, swelling, tenderness and one that has not been used frequently). *arm, thigh, abdomen (around umbilicus)*
11. Clean the site with an alcohol swab using an expanding circular motion or a single wiping from distal to proximal. Do this 3 times with separate swabs. Let it air dry.
12. Take the syringe and open its cap.
13. Hold the syringe (from its barrel) like a pencil or dart with your dominant hand and place a sterile gauze between 4<sup>th</sup> and 5<sup>th</sup> finger.
14. Grasp the skin between the thumb and index finger with your non-dominant hand and pinch up\*.
15. Insert the needle at a 45-90 degree angle to the patient's skin in a quick, firm motion.  
(for thin or muscular people insert the needle at a 45 degree angle to avoid injecting into muscle)
16. Release the skin that you are grasping.  
With your non-dominant hand, pull on the syringe's plunger to ensure that you have not entered a blood vessel.  
(If you aspirate blood, withdraw the needle and repeat the procedure at another site with a new needle.)  
*but usually needle is small not to penetrate*
17. Inject the drug very slowly.
18. With your non-dominant hand, take the cotton wool and quickly remove the needle while applying pressure with the sterile gauze, maintain gentle pressure for a minute.
19. Observe your patient at least 15 min. for any possible adverse effects of the injected drug.

#### After the procedure

20. Dispose of sharps and waste material according to infection control standards.
21. Ensure that the patient is comfortable.
22. Remove the gloves and wash hands.
23. Document the procedure.

## Identifying subcutaneous (SC) injection sites\*

Drug injection sites vary with the administration route. The instructions below describe proper identification of injection sites for subcutaneous (SC) drugs. Subcutaneous injections can be given in the arms, legs, or abdomen -shown below. In these illustrations, specific injection sites are shaded.

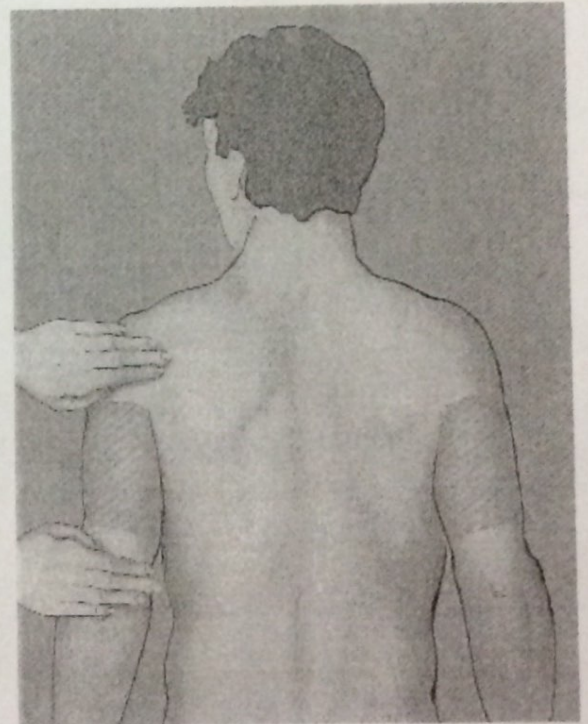
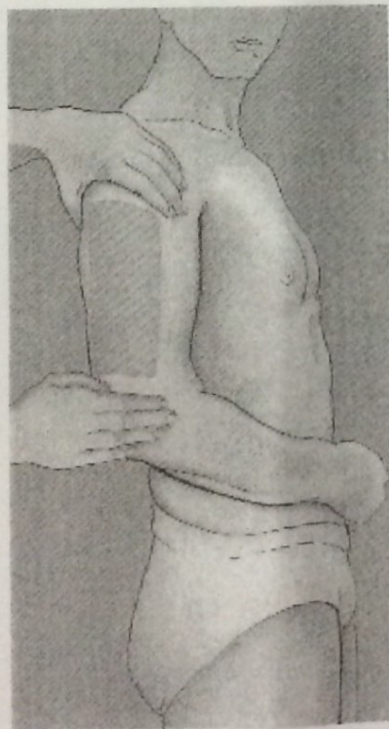


**Fig.1\*:** A subcutaneous injection into the fatty layer of tissue (pinched up to give the injection) under the skin.

### Arm

To locate injection sites on the arms, fold one arm across the chest. Place your hand on the shoulder and draw an imaginary line below your hand. Place another hand on the elbow. Draw an imaginary line down the outer side of the arm and down the center front of the arm, starting at the elbow. The area inside these imaginary lines is where injections are given.

*(If you are injecting imagine the hand placement.)*



**Fig.2\*:** Injection sites on the side and on the back of the arm

## Thigh

To locate injection sites on the thighs, sit down, place your hand above the knee, and draw an imaginary line above it. Place your hand at the uppermost part of the thigh and draw an imaginary line below your hand. Draw an imaginary line down the outer side of the leg and down the center front of the leg. The area within these imaginary lines is where injections may be given.

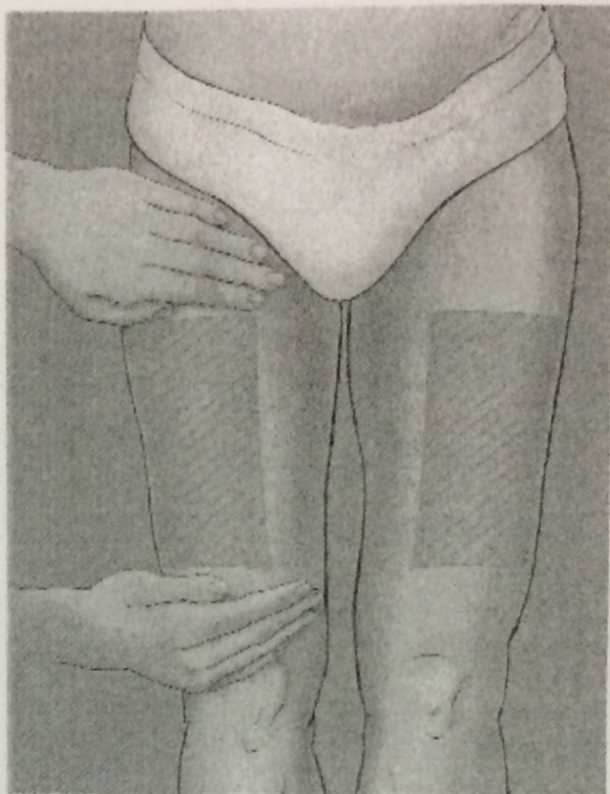


Fig.3\*: Injection sites on the front of the thigh.

## Abdomen

To locate injection sites on the abdomen, place your hands on the lower ribs and draw an imaginary line through them. Use this area below your hands for injections, as far around as you can pinch up fatty tissue. Use a 1 inch (2,5 cm) area around the navel.

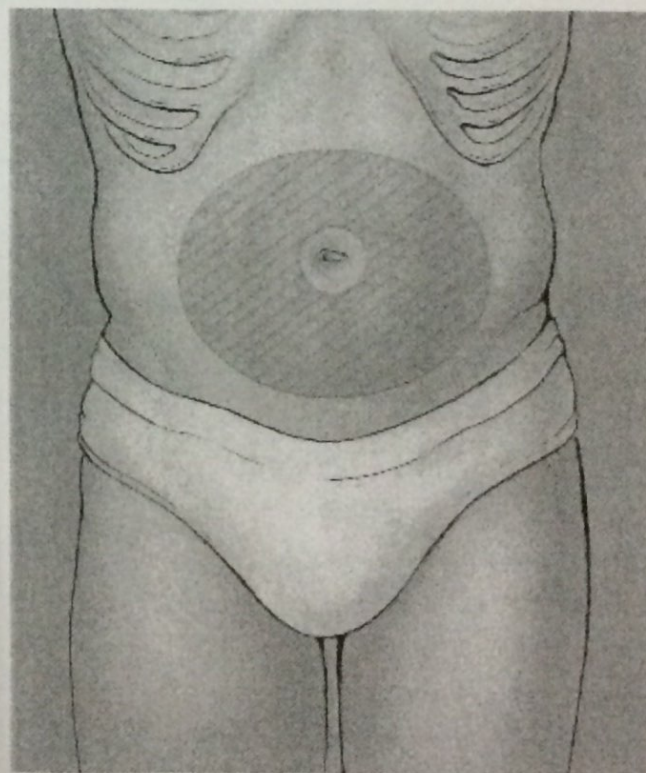


Fig.4\*: Injection sites on the abdomen.