



## Rodent Subcutaneous (SQ/SC) Administration

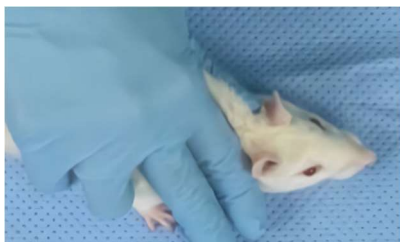
Subcutaneous injections can be used to administer fluids for rehydration, medications, and experimental compounds. A new needle must be used for each animal. Avoid all unnecessary movement of the needle once inserted in the subcutaneous space by establishing a comfortable grip on the syringe before injection. Fluid to be injected may be warmed before injection by holding the syringe inside the palm of the hand for a few seconds. This will minimize animal discomfort and a drop in body temperature.

### Necessary Supplies

- 25-30 gauge needle (as thin as suitable for the solution being used)
- 0.3 - 1ml syringe

### Technique

1. Using your non-dominant hand, gently restrain the animal by grasping the loose skin ("scruff") over the shoulders and behind the ears (**Image 1**). Ensure that the animal is breathing normally. If lifting the animal off the ground for injection, tuck the tail between your fingers to minimize undesired movements during the injection. For rats you may need a second person to restrain the animal. Alternatively, a scruff restraint board may also be used. See UAC's [Rodent Handling and Restraint Guidelines](#) for more information.
2. Identify the injection site in the scruff (**Image 2**) or flank (**Image 3**).
3. Gently but securely insert the needle under the skin with the bevel facing up. Be careful not to insert the needle too far (as to exit the other side of the skin) or too deep (to go intramuscular).
4. Pull back the plunger to ensure negative pressure. If you see blood, you should stop, remove the needle, and start over. Once confirmed that you are in the correct location, administer the substance.
5. After administration, release the plunger and pull the needle straight out. Observe the animal in the cage for any complications.



**Image 1-** Restraint methods: Animals may be held in the air, or their feet can remain on the ground.



**Image 2-** SQ injection in the scruff of a mouse.



**Image 3.** SQ injection in the flank of a rat using 2 people.