

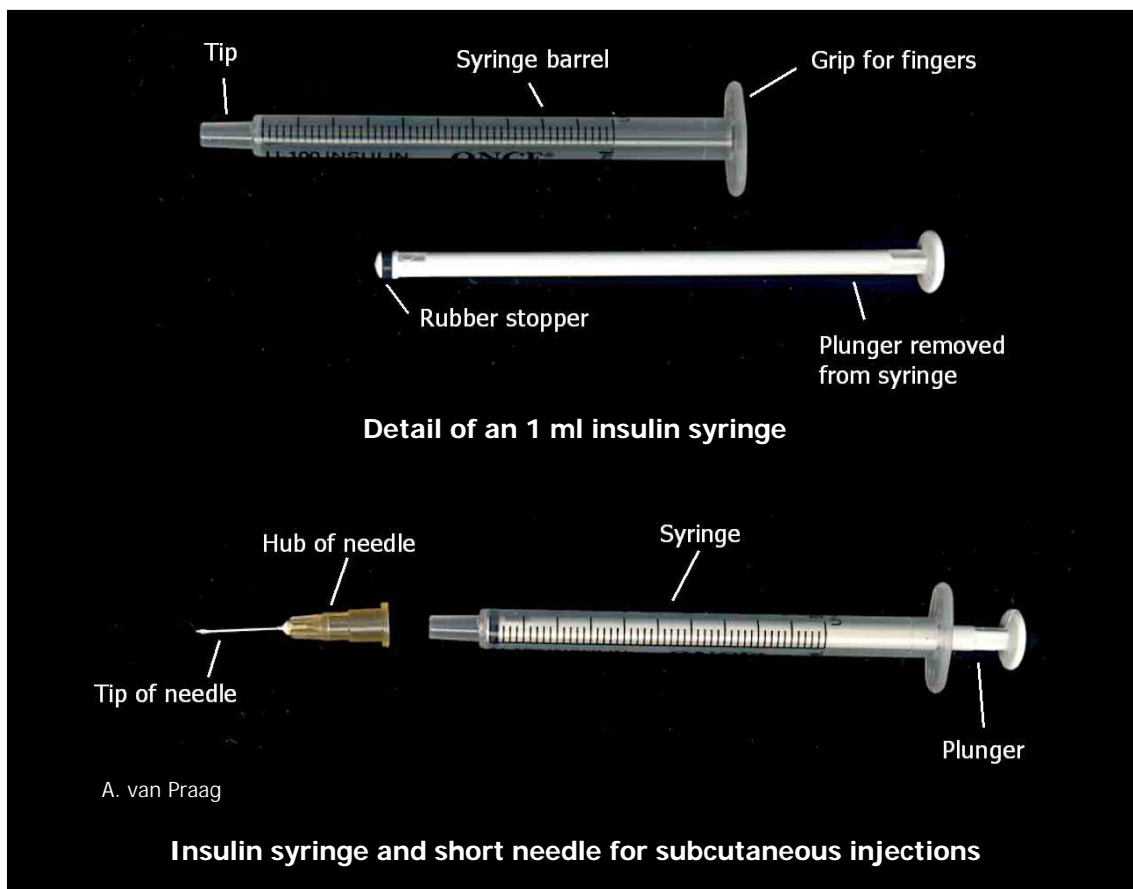
Subcutaneous Injections in Rabbits. Part 1: Drawing the medicine into a syringe

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Before giving medication to a rabbit, it is important to prepare the needed material:

- The medication bottle
- A cotton ball and alcohol,
- The syringe, packed in a sterile plastic,
- The sterile new needle (gauge 23-27), protected in the needle cap.

... and relax as much as possible. Rabbits can sense nervousness and stress and will be tense or run away when the person approaches to give the medication.

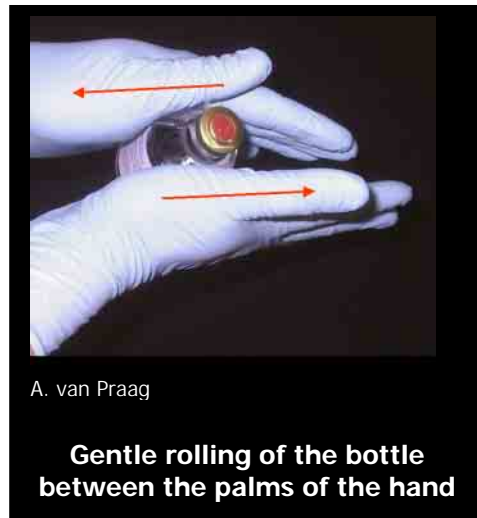


Drawing the medicine from bottle:

Medicine is sometimes available only as a sterile injectable liquid solution and is stored in glass or plastic vials closed with a rubber stopper and sealed with an aluminum ring.

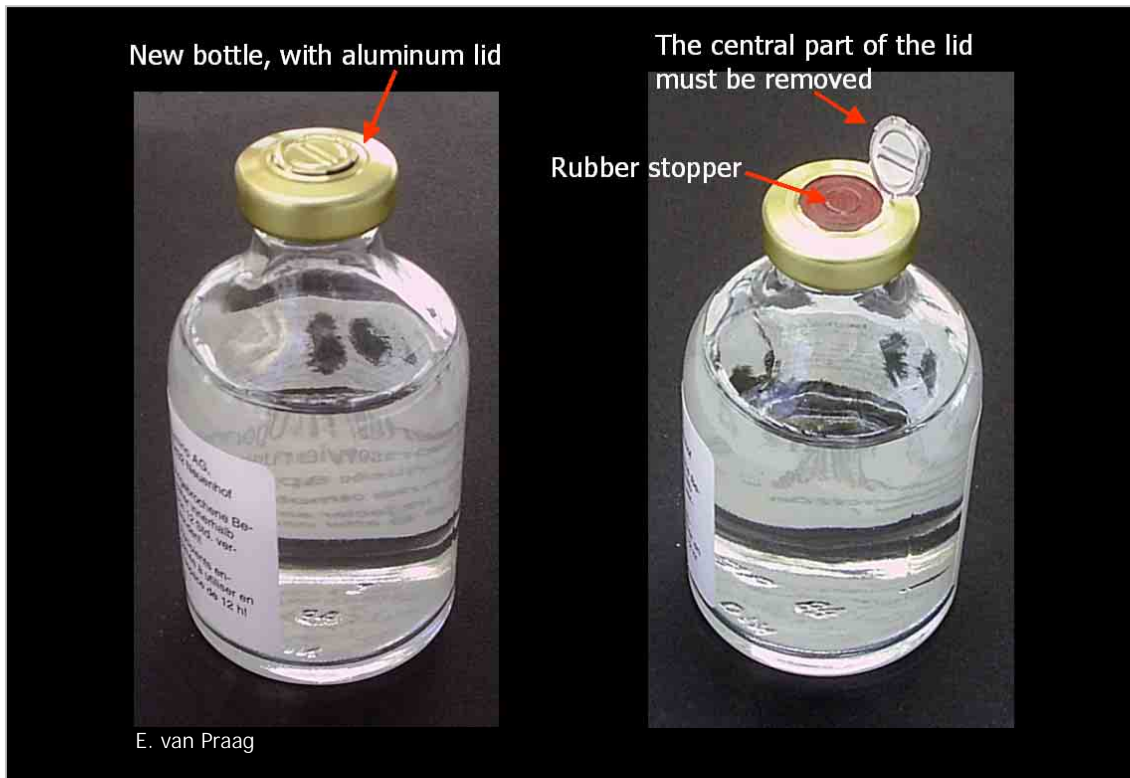
Before taking the medicine out of the bottle, it should be mixed in the vial or warmed up, if stored in the refrigerator.

Take the vial and roll the bottle gently between the palms of the hand. **Never shake the bottle !!!** This will cause:



- The formation of air bubbles that make extracting the medication harder,
- The inability to get an accurate measurement,
- The addition of air into the volume of medication to be given, decreasing the effective dosage,
- The presence of air in the subcutaneous tissue, after injection.

If the bottle is new and used for the first time, the protective aluminum cover must be broken off.



Make sure you use a new sterile needle and a sterile syringe.

Some prefer to use a separate needle to extract the medicine from the bottle. Others use the same needle to withdraw the medication from the vial, and later inject it to the rabbits.

Before taking the medicine, and pushing the needle through the rubber stopper:

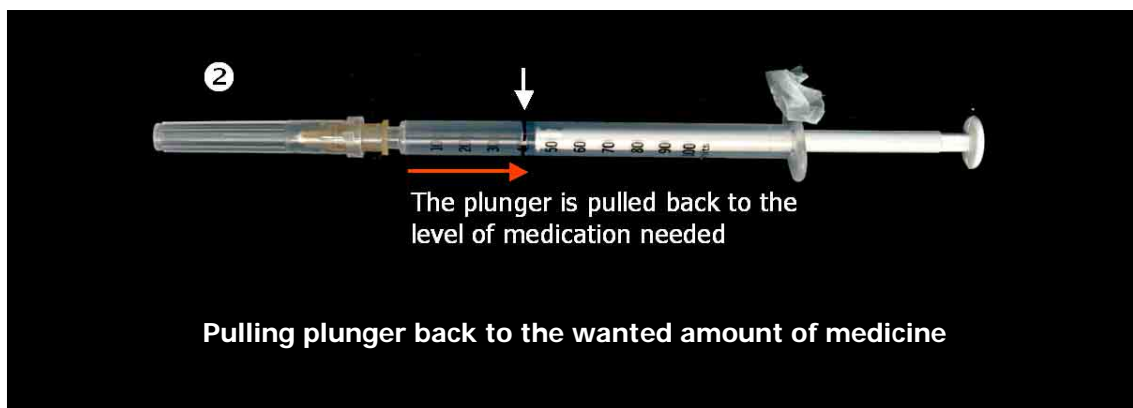
1. Make sure you know what size the syringe is and where you want the dosage to be drawn. Mark the level of medication to be drawn on the syringe and cover with a piece of adhesive tape, so it does not fade away.



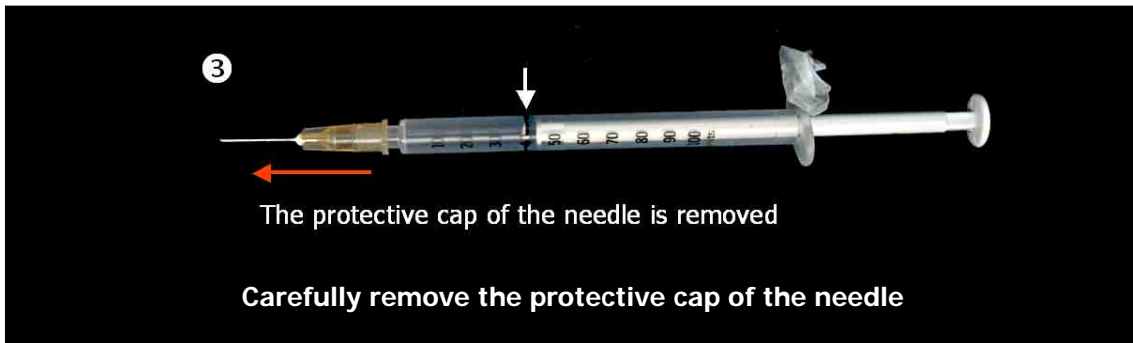
2. Clean the outer surface of the lid with a cotton ball drenched in an alcohol solution. This ensures that the outer surface is sterilized and no microbes are imported into the bottle.

Do not touch the lid with fingers after cleaning !!!

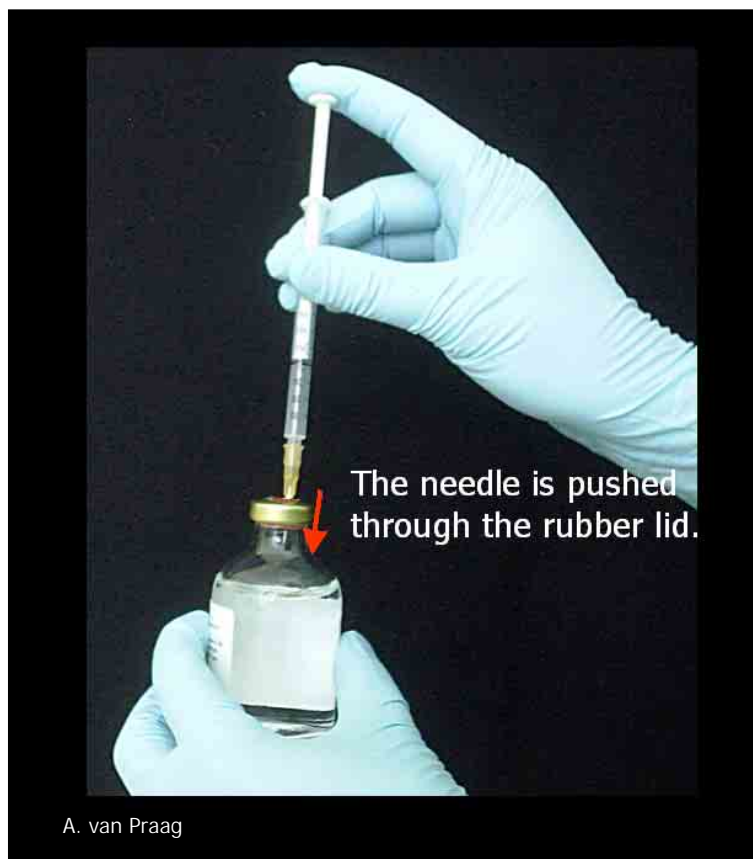
3. Pull back on the plunger to the cc/ml/units line of the amount needed. This will fill the syringe with air.



4. The protective cap of the needle is now removed. **Do not touch the needle with fingers !!!**

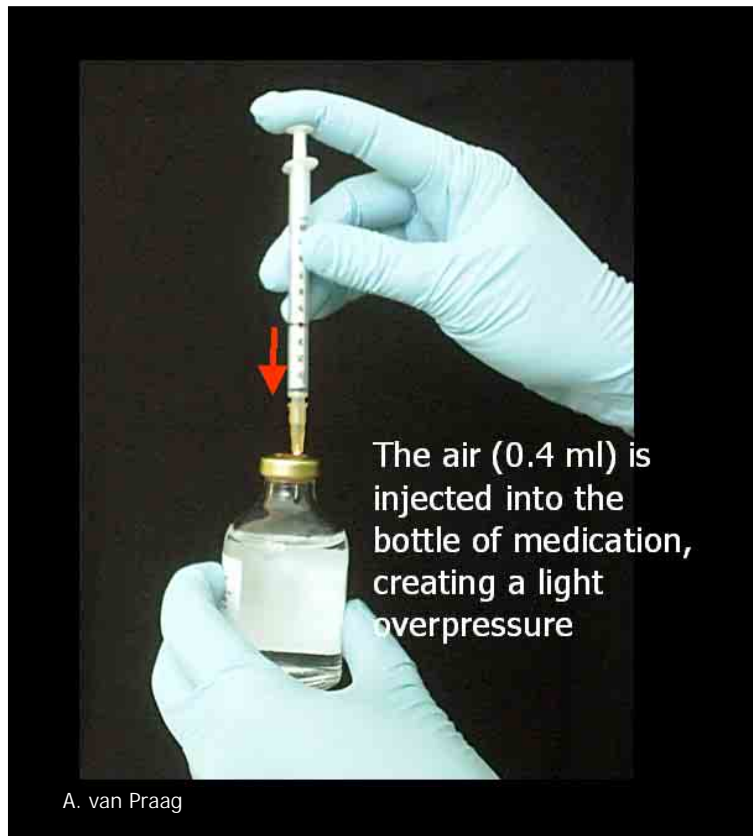


The needle is pushed through the rubber stopper...

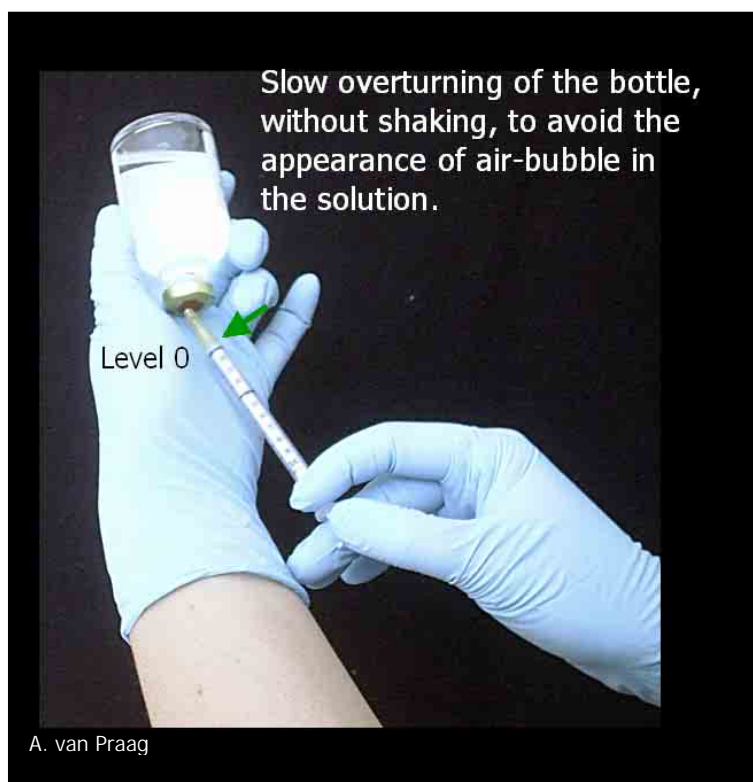


... and the air is injected into the bottle, by pushing the plunger down. This will create a slight temporary overpressure in the bottle.





The bottle, with needle stuck through the rubber stopper, is then gently turned over and tipped at an angle.



The plunger is **slowly** pulled back, allowing the medicine to flow into the syringe. A slightly larger volume is taken than necessary.



When the needed amount of medicine is in the syringe, the needle is pulled out and the protective cap put immediately on it (to avoid contamination or sticking in one's finger).

If several rabbits need to be given the same medicine, separate syringes for each rabbit must be prepared and have the dosage lines marked on each, depending on the amount needed.

Diluting the medication before administration

Some drugs or components of the injection solution are strong irritants of the skin and induce necrosis at the site of injection or of the tissue surrounding the injected liquid. This is particularly the case of subcutaneous administration of fluoroquinolone (e.g. enrofloxacin, marbofloxacin) or penicillin antibiotics, of drugs diluted in oily solutions, or when the injected solution remains too long in contact with the surrounding skin, due to slow or poor absorption in the blood. As a result, sterile abscesses develop.

As its name indicates, a sterile abscess is the result of a local inflammation and fluid accumulation due to chemical irritation of the skin. It is not the result of a bacterial infection, and no pus is found. With time, there is



scarring of the affected tissue, and development of a hard solid lump that takes a long time to disappear. Rarely a sterile abscess is a source of discomfort or pain to the rabbit; in this case, it can be removed surgically.

If the solution to be injected is water-based, as is the case of e.g. enrofloxacin, it can be diluted 50:50 with a sterile saline solution before injection. This will avoid the formation of sterile abscesses. Oily based solution, like often the case for penicillin, cannot be diluted with a saline solution.

Dedicated...

To my ten rescued rabbits who fill my life with laughter and make me a better person.

Chewie, Belle, Tinker, Jade, Marri, Noggie, Jack, Hannah, Ricky, & Lucy, you are my inspiration.

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