

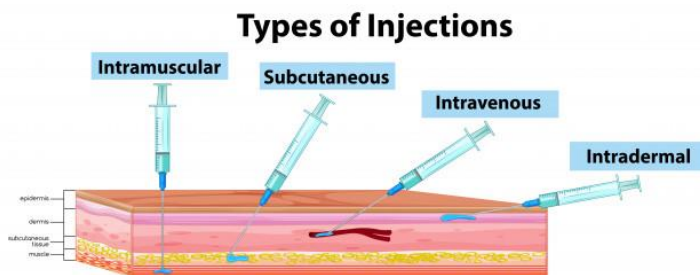
Tutorial-How to Give Your Snake (or Other Reptile) an Injection (*By Prescription Only)

Every so often, your pet snake (or other reptile) might be prescribed specific medications or treatments following a visit with your local reptile or exotic animal veterinarian, which may require one, or a series of shots or injections to be given and administered at home. The good news is that unlike dogs and cats, or other mammals, reptiles very rarely require annual or preventative vaccinations, at least in the vast majority of cases, but they may still require them as treatments for specific bacterial, viral, fungal, or other infections or diseases as diagnosed and prescribed by your veterinarian.

Ideally, one need not worry about having to give their animal an injection, as they would be healthy, properly cared for, and thriving. But what if the need or circumstance to do so does arise? How and where are the best ways of administering an injection? Are there different types of injections? In this tutorial, we will provide a simple, step by step tutorial on how to become more prepared, familiar, and comfortable for giving your snake or other reptile an injection, when needed. ****Disclaimer-It is important to note that the purpose of this tutorial is not necessarily to provide or promote self-diagnosis or self-care and treatment of one's animals, but rather simply to fulfill an existing prescription given by your veterinarian, should the need to do so ever arise. Always consult and seek professional veterinary care as a primary means of addressing any health or medical issues which may arise in your animal, and also always be sure to follow any specific guidelines and directions for storage, usage, and disposal for any prescribed medications your veterinarian may provide to you.***

With this said, here is a tutorial on how to provide your snake or other reptile a prescribed injection!

Types of Injections



* General diagram of the different types of injections. Intradermal not covered in this article. © Freepik. There can be several different types of injections given to an animal. The first are **IV, or Intravenous injections**, which are injected directly into a vein of the animal. The second is an **IM, or Intramuscular injection**, which are injections delivered directly into the muscular tissue. The third is a **Subcutaneous, or SubQ injection**, which are injections delivered directly beneath the skin of the animal.

The type of injection given typically depends on the specific and individual needs of the animal, as well as the medication prescribed. In most cases, either a Subcutaneous (SubQ) injection or an Intramuscular (IM) injection are the most common types of injections one may be giving one's animal. Most antibiotic

or other medical injections are typically intramuscular to allow for quicker and more efficient absorption. IV, or Intravenous injections tend to most often be performed in a veterinary setting.

Once the medication to be given is prescribed, it will need to be drawn from the vial. In some cases, your veterinarian might have already pre-set the dosage amount required, which can certainly make matters easier and eliminate the step of needing to determine or draw the medication on your own. If not, then this will need to be determined and drawn out manually. See the following step.

How to Manually Draw the Dosage

1. Remove or unwrap the syringe from the packaging. Remove the plastic cap from the needle.
2. Hold needle upward. The syringe should typically be 1 ML/cc (cubic centimeters). Read and understand the prescribed units of measurement carefully. 0.5 ml/cc is not the same as 0.05 ml/cc, for example.
3. Insert the needle upside into the membrane covering of the top of the vial of medication. Draw the plunger of the syringe back to withdraw the medication. Carefully observe the unit markers on the syringe to ensure the specified amount is properly withdrawn.
4. Withdraw the needle from the vial. If any bubbles or pockets of air appear in the syringe, gently tap or flick the syringe to clear them up, and then double check and/or adjust the specified dosage amount accordingly.
5. Your reptile's dosage should then be set, and be ready to be administered.

How to Administer Your Reptile's Dosage-4 Legged Animals



**Typical Lizard IM Injection Location, in this case, a Bearded Dragon. © Calgary Avian & Exotic Pet Clinic.*

1. For four-legged reptiles, such as crocodylians, lizards, and turtles and tortoises needing injections, two people may make ease of administration much easier. Have one person or set of

hands hold out one of the animal's forelimbs. Another person should gently and properly restrain the animal in accordance to species-appropriate standards or guidelines. Most injections for these animals can be inserted in their biceps or triceps of their forelimbs. Administering the injections into their tails or hindlimbs can also be done, but may be less effective. Series of injections may also be alternated between forelimbs and/or muscles according to the recommended intervals for best spread of the medication. Chelonians, such as turtles and tortoises, can be injected in either pectoral muscle underneath the forelimbs aiming opposite side between the plastron (bottom shell) and shoulder.

2. Face the bevel, flat edge of the end of the needle outward or opposite from the animal's body. Insert the needle into the skin in-between two scales of the specified forelimb and muscle at roughly a 45 degree angle, ideally, in the center of the muscle depending on the size of the animal.



**Typical Turtle or Tortoise IM Injection Location, in this case, a Slider Turtle. © Calgary Avian & Exotic Pet Clinic.*

3. Once the needle is inserted, pull the plunger of the syringe back slightly. If any blood is seen in the syringe, this means that a vein was struck rather than muscle. If this happens, withdraw the needle and re-insert into another area of the forelimb and muscle.

4. Once inserted into the animal, push the plunger set at the pre-set ML/cc amount all the way back down, and then place a thumb or finger over the needle as it is removed. Apply slight pressure over injection site for several seconds afterward. No bandages are typically required thereafter.

5. The injection of your four-legged reptile should be complete!

How to Administer Your Reptile's Dosage-Snakes and Other Limbless Reptiles



**Typical Snake IM Injection Location, in this case, a Ball Python. © Unknown.*

1. For snakes and other legless reptiles needing injections, two people may make ease of administration much easier. Have one person or set of hands administer the injection. Another person should gently and properly restrain the animal in accordance to species-appropriate standards or guidelines. Most injections for these animals can be inserted in their dorsal muscles on either side of the animal's spine. For best results, administer the injection into the larger muscle areas of the cranial or anterior third of the body closest the head. Administering the injections into their tails can also be done, but may be less effective. Series of injections may also be alternated between muscles on alternating sides of the body according to the recommended intervals for best spread of the medication.
2. Face the bevel, flat edge of the end of the needle outward or opposite from the animal's body. Insert the needle into the skin in-between two scales of the specified muscle at roughly a 45 degree angle, ideally, in the center of the muscle depending on the size of the animal.
3. Once the needle is inserted, pull the plunger of the syringe back slightly. If any blood is seen in the syringe, this means that a vein was struck rather than muscle. If this happens, withdraw the needle and re-insert into another area of the muscle.
4. Once inserted into the animal, push the plunger set at the pre-set ML/cc amount all the way back down, and then place a thumb or finger over the needle as it is removed. Apply slight pressure over injection site for several seconds afterward. No bandages are typically required thereafter.
5. The injection of your snake or other legless reptile should be complete!

Post-Injection Procedures

1. Return the animal to its enclosure to allow it to rest and thermoregulate. For ideal results, administer the injection in the morning to mid-afternoon, to allow for sufficient basking and

post injection medicine absorption into their muscles.

2. Repeat the necessary injection steps above in accordance to the recommended intervals as prescribed by your veterinarian. A sufficient number of vials and syringes should be provided by your veterinarian to take home. If not, or if dosages are needed or used up quicker than anticipated, ask your veterinarian to prescribe additional dosages.

3. Continue to monitor your pet's overall progress, signs, and symptoms, and any other instructions provided to you by your veterinarian.

4. Likewise, one can also reach out to another knowledgeable and experienced member or individual through MAHS if one is still not comfortable enough administering an injection to their pet(s) on their own or if an extra hand is needed.

5. Place the plastic cap back on the used syringe. Properly dispose of the used needle or syringe into an FDA approved sharps or other homemade medical waste container. Consult your local veterinarian and/or pharmacy clinic for options for properly disposing of medical waste products.

Additional and Other Species Considerations



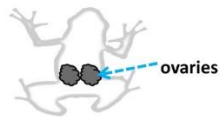
**An Alternative IM Injection Location for Animals with Reduced Limbs, in this case, a Blue Tongued Skink.
© ThePresidentialTourist.*

1. Each, individual species might be different in their overall sizes, body structures or proportions, and/or overall morphology, which might influence how, where, or whether injections should even be given. Some species, such as blue tongued skinks with comparatively small or reduced legs with insufficient muscle might be administered injections through their dorsal muscles on either sides of their spine, or base of the tail, similar to snakes.



**An Alternative IM Injection Location for Smaller Animals along their Dorso-Lateral Muscles, in this case, a Leopard Frog. © Unknown.*

2. Some smaller animals can alternatively be restrained and cradled in one hand, and injected through either the dorso-lateral muscles along their back or spine, or sometimes through the ventral surface or underbelly region. Unlike most reptiles, amphibians have comparatively thin and fragile skin without overlapping scales, requiring additional care and consideration when performing an injection.



**An Alternative IM Injection Location for Smaller Animals on the Ventral Surface, in this case, another Frog. © Natalie E. Calatayud et al.*