



# INJECTION SITES IN EXOTIC ANIMALS

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- ❑ Injection sites for administering medications in exotic animals vary depending on the species, size, and health condition of the animal.
- ❑ Here are some general guidelines and considerations for common types of exotic animals:
- ❑ **Aseptic technique:** Always use sterile needles and syringes.
- ❑ **Species-specific anatomy:** Understand the unique anatomical features of the species to avoid damaging vital structures.
- ❑ **Proper restraint:** Ensure the animal is properly restrained to minimize stress and prevent injury.
- ❑ **Dosage and volume:** Adjust the dosage and volume of the injection according to the species and size of the animal.

# BIRDS

## Intramuscular (IM):

- ❑ Pectoral muscles: Most common site for IM injections.
- ❑ Thigh muscles: Less commonly used due to potential risk of hitting the sciatic nerve.

## Subcutaneous (SC):

- ❑ Inguinal region: Skin fold near the leg.
- ❑ Dorsal neck: Between the shoulders.

## Intravenous (IV):

- ❑ Jugular vein: Preferred for larger birds.
- ❑ Basilic vein: Located on the wing.
- ❑ Medial metatarsal vein: Suitable for smaller birds.



# REPTILES

Note of caution: RENAL PORTAL SYSTEM

Intramuscular (IM):

- Epaxial muscles: Along the back, near the spine. (Snakes)
- Limb muscles: In the large muscles of the legs. (Lizards and Chelonians)

Subcutaneous (SC):

- Lateral body wall: Loose skin on the sides of the body. (Stay parallel to the animal)

Intravenous (IV):

- Ventral tail vein: Common in lizards and snakes.
- Jugular vein: In larger reptiles like tortoises.
- Cephalic vein: In larger lizards.



# SMALL MAMMALS (RABBITS, GUINEA PIGS, FERRETS)

Intramuscular (IM): Caution with hind limbs and sciatic nerve!

- ❑ Quadriceps muscle: Front of the thigh.
- ❑ Lumbar muscles: Along the spine.

Subcutaneous (SC):

- ❑ Scruff of the neck: Loose skin on the back of the neck.
- ❑ Flank area: Loose skin on the sides.

Intravenous (IV):

- ❑ Cephalic vein: Forearm.
- ❑ Lateral saphenous vein: Hind leg.
- ❑ Ear vein: In rabbits, the marginal ear vein.



# AMPHIBIANS

## Intramuscular (IM):

- ❑ Limb muscles: Large muscles of the legs.

## Subcutaneous (SC):

- ❑ Dorsal lymph sacs: Located under the skin on the back.

## Intracoelomic (ICe):

- ❑ Coelomic cavity: Injections directly into the body cavity.



# FISH

## Intramuscular (IM):

- ❑ Epaxial muscles: Along the dorsal fin.

## Intraperitoneal (IP):

- ❑ Peritoneal cavity: Injection into the abdominal cavity, often used for vaccinations.



# POCKET PETS (MICE, RATS, HAMSTERS AND GERBILS) ANESTHESIA MAY BE NEEDED

Intramuscular (IM): Caution with hind limbs and sciatic nerve- self mutilation!

- ❑ Quadriceps muscle: Front of the thigh.
- ❑ IM injections not generally recommended in pocket pets!

Subcutaneous (SC):

- ❑ Scruff of the neck: Loose skin on the back of the neck.
- ❑ Flank area: Loose skin on the sides.

Intraperitoneal (IP):

- ❑ Lower left quadrant preferred.
- ❑ Can be used in place of IM

Intravenous (IV):

- ❑ Lateral tail vein: mice and rats
- ❑ Lateral saphenous vein: Hind leg.
- ❑ Retro orbital sinus: Anesthesia required, training necessary!



# IN SUMMARY

- ❑ It is crucial to have a thorough understanding of the specific needs and anatomical differences of each exotic animal species.
- ❑ Consulting with a veterinarian who specializes in exotic animals is recommended for the best outcomes.
- ❑ Know your patient peculiarities before attempting the procedure.

# RESOURCES

<https://www.msdvetermanual.com/multimedia/image/intramuscular-injection-koi-cyprinus-carpio>

<https://www.amphibianark.org/research/Handling-and-injecting-amphibians.pdf>

<https://staff.flinders.edu.au/content/dam/staff/research/ebi/animal/sops/swms-rabbit-injection-techniques.pdf>