## **Dover Equine Veterinary** *How to Inject your Horse*

Although giving intramuscular (IM) injections to the horse is considered routine, it is not without risk to either you or your horse. Always consult your veterinarian about the type of medication, the dosage and the route (IM, intravenous, etc) prior to administering any drug to your horse. Improperly handled drugs and poor injection techniques can result in life-threatening drug reactions, anaphylactic shock, infection, injection-site abscesses and ineffective drug administration.

## Safety First:

- **Handler Precautions**: Administering injections poses a risk to the individual as well as the horse. Always have a handler, who will be responsible for safely restraining the horse, and an injector, who will be responsible for giving the injection. The handler should always stand on the same side of the horse as the injector. It is not recommended to tie your horse in place of having a handler. Even if your horse is usually well behaved, he may react differently and dangerously if tied.
- **Proper Handling of Medication**: Some drugs can be absorbed through the human skin or can produce adverse reactions if accidentally injected into humans. Always handle medications according to label directions and be extremely careful with loaded syringes. Use extreme caution when recapping needles, as this is the most common way for accidental punctures to occur. Ask your vet for proper disposal options for used needles.
- Medication/Dosage Precautions: Before giving any injection, always check and doublecheck the dosage (amount to be given), the frequency (how often to be given), and the route (IM, intravenous, intradermal). Always check the drug name to ensure it is the one recommended by your veterinarian. Remember, the brand name and generic name may differ. Please call if there is any confusion.
- Drug Storage: Always store the medication as directed according to the label.
- Sterile Equipment: Always use a sterile needle and syringe for each injection. Never reuse either a needle or syringe, as a contaminated needle/syringe can introduce a dangerous infection to your horse. We recommend using individually packaged needles and syringes. Open immediately before using and dispose of immediately after using.

## **Injection Sites:**

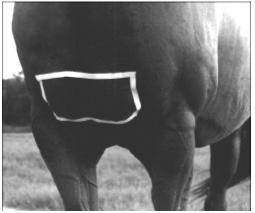
The best injection site is one consisting of a large muscle mass that is actively used by the horse. This decreases the potential for swelling and pain at the injection site and promotes durg absorption into the blood stream. The sites should allow for the injecter to be in as safe a position as possible if the horse reacts to the needle insertion. The site also needs to be large enough to allow the needle to be buried to the hub without danger of hitting other structures (bone, nerves, blood vessels or ligaments).

• **Base of the Neck**: The cervical musculature at the base of the horse's neck is an injection site that is both easy to find and relatively safe for the injecter. The site is a triangle bordered by the nuchal ligament (along the crest of the neck), the cervical vertebrae

(running along the bottom half of the neck from the poll to the point of the shoulder), and the scapula (shoulder blade). Aiming higher toward the crest you risk hitting the nuchal ligaments, and lower toward the bottom of the neck is where the cervical vertebrae and major blood vessels are located. In order to avoid ligaments, blood vessels and nerves, make sure you stay near the base of the neck.



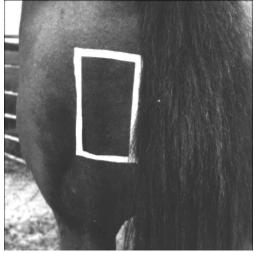
• **Pectoral Region**: The pectoral muscles are located in the lower chest. This muscle group is comprised of the two side-by-side "bunchy" muscles that are found in the lower half of the chest between the tops of the forelegs. It should be noted that this muscle group is prone to becoming sore easily, and should only be used when the horse is receiving prolonged treatment. This site does put the handler at some risk of being kicked or struck, so use caution.



• **Gluteal Muscles**: This muscle group is found on the top of the rump. It is a large, frequently used muscle mass that allows the injecter a relatively safe position to inject from. To locate this site, draw a line between the tail head and the point of the hip (tuber coxae), and a second line from the top of the croup and the point of the buttocks (tuber ischii). The injection should be given at the intersection of these two lines. It should be noted that a major disadvantage of this area is that in the case of an injection-

site abscess, there is very poor drainage and therefore more difficult healing. This is a site that should only be used in the case of prolonged treatment.

• **Buttocks Region**: The semitendinosus (hamstring) is a large muscle mass below the point of the buttocks that makes a good injection site. The major drawback to this injection site is that it puts the injecter in a dangerous position within kicking range of the horse. We recommend this site only for experienced horse handlers. To find this injection site, locate the bony protrusion that makes up the point of the buttocks (tuber ischii), and drop about 1 inch down. Inject anywhere in the large muscle mass along the back of the leg.



## How to Give IM Injection:

- Remove the needle from the syringe.
- Quickly and decisively insert the needle perpendicular to the skin. A fast stab is less painful for the patient. The entire length of the needle, up to the hub, should be inserted into the muscle.
- Attach the syringe to the needle.
- Always aspirate before injecting anything! This means pulling back on the plunger and ensuring that there is no blood in the syringe. If there is no blood, it is safe to administer the medication. If there is blood, you must remove the needle and redirect the injection.
- Slowly administer the medication.
- Properly dispose of your needle and syringe in a safe medical waste container.

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