

Giving Horses Intramuscular Shots

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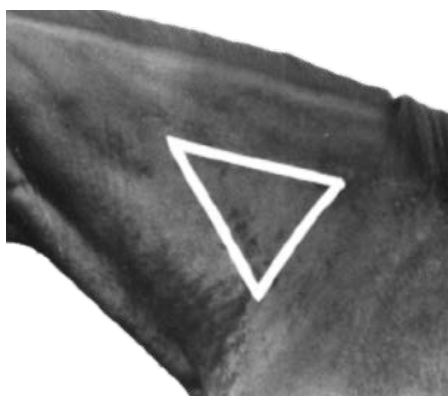
Throughout the duration of owning or caring for horses, the necessity of giving them an intramuscular shot may occur. During this time, it is imperative to use only the best areas to apply the shots, as well as the being aware of the repercussions of not properly applying the shots. You should always consult your veterinarian prior to administering any type of shots. There are four separate ways to administer shots to horses:

- Intravenous injections administered into a vein
- Intradermal injections administered into the skin
- Subcutaneous injections administered underneath the skin
- Intramuscular (IM) injections administered into a large muscle mass

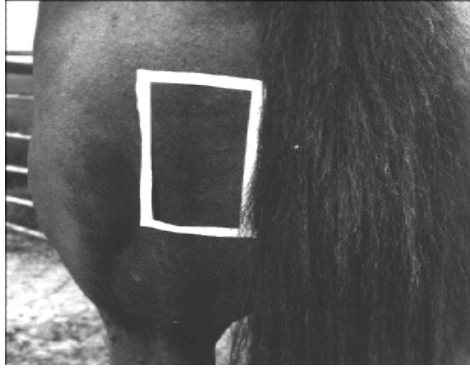
For the purposes of this article, we will focus on intramuscular shots.

When approaching your horse to administer the shot, it is best to spend a few minutes with the horse to ensure that he or she is in calm state and ready to be handled. Horses that have had shots before tend to remember and may refuse if they had a negative experience or simply do not like shots. Keep in mind that a horse that objects the shot can easily hurt the handler. Additionally, many drugs given to horses can have adverse reactions if absorbed into human skin or if accidentally injected into the handler or person administering the shots. It is crucial to discuss the drug with your veterinarian to identify any precautions that must be taken. It is also best to double check the label prior to giving the shot to ensure that it is the correct drug, the expiration date has not expired, and you are sure of the recommended dosage.

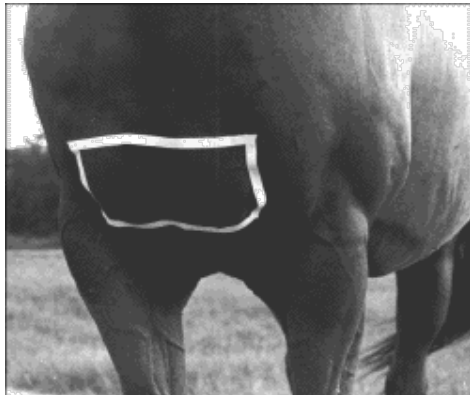
Injection sites



The area outlined by the white triangle indicates the proper location for intramuscular injections (IM) in the neck.



The large muscles inside the square are a good area for IM injections. For safety reasons, it is best to stand very close to the horse on the opposite side of where the injection will be given (should the horse kick out).



The rectangle outlines the area for an injection in the pectoral muscles. However, using this area can put the handler in an unsafe position as well as resulting in stiff, sore muscles in the horse. Thus, this area should only be used when all other areas have been exhausted.

1. Apply generous amounts of alcohol to the area intended for the injection. If no alcohol is available or to achieve maximum sterilization, shave the area to give the shot.
2. With needle in hand, rub up and down on the injection site. This will distract the horse and desensitize the area.
3. While rubbing and in one continuous movement, insert the needle, continuing to rub the area after the needle is inserted. Practice is essential to make this go smoothly.
4. Once the needle is placed, a syringe can be attached.
5. The plunger on the syringe should be drawn back, creating negative pressure. If blood appears in the hub of the needle, it is in a vessel. The needle should be taken out and the entire process started over again.
6. After attention has been given to ensure the injection will not be given in a vessel, the injection should be given and the needle removed.
7. Observe the horse for any signs of allergic reaction for about 30 minutes after giving the injection.

Helpful Tips:

1. Follow the recommended method of drug storage.
2. Do not mix individually packaged drugs in the same injection. It is better to play it safe and give the horse two separate injections.
3. Untie the horse and hold its lead rope or have someone else hold it.

4. If the horse tries to kick, pull his head toward you (this will swing its rear end away from you).
5. Make sure you use a sterile needle and syringe. Individually packaged, disposable sterile needles and syringes are the easiest way to ensure sterile equipment. Open the packages immediately before use, and dispose of them immediately after use. Never reuse a needle because a contaminated needle can easily introduce an infection into a horse.
6. The size of the needle depends on the medication being injected. A large-diameter needle (18 gauge) works best with thick solutions such as penicillin, while a smaller-diameter needle (20 to 21 gauge) can handle a thin, watery solution. Remember, a larger gauge number equals a smaller diameter. Larger gauge needles may break more easily than smaller gauge. If your horse reacts adversely to the injection and breaks the needle, you should make sure you can find both pieces of the needle. If you suspect a piece of needle may be retained in the horse's muscle, consult your veterinarian.
7. It is also a good practice to use more than one injection site (for example, the neck and the buttocks) when giving several separate medications or vaccines at once. Then if the horse has a drug reaction it may be easier to identify the drug that caused the problem.

Photos courtesy of Cynthia McCall, PhD. Auburn University. Special thanks to Drs. Cody W. Faerber, Kevin Hill, S. Mario Durrant, Cindy McCall, William E Day, and Tiffany Julen Day for their contributions to this article.

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