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## Rattlesnake Vaccination: Clarifying the Conversation

By Jo-Anne Brenner

As discussions and debates regarding rattlesnake vaccine for dogs continue, so does a great deal of misinformation. This article is intended to present some of pros and cons, dispel the myths, and lay the groundwork for an educated conversation between you and your veterinarian.

### Efficacy

*Does it work? Yes...and no, depending on how you define "work."*

First, it is absolutely crucial that everyone understand that this product does not, and was never intended to, eliminate the need for immediate veterinary care following a snakebite, including anti-venom. This bears repeating, as I regularly hear handlers say that they are not worried about rattlesnakes anymore because their dog has been vaccinated. The vaccine does not prevent the poisonous effects of venom.

According to manufacturer Red Rock Biologics, "Vaccinated dogs experience less pain and have a reduced risk of permanent injury from rattlesnake bite." How much less and how reduced? Unfortunately, the manufacturer has chosen not to make its research available for peer review or for the public.

Anecdotal evidence suggests the product helps to minimize pain, reduces swelling, and ultimately reduces tissue damage and the likelihood of death. Of particular interest to SAR handlers is that symptoms may have a more gradual onset. Some veterinarians have observed delays of about one hour, which can make a crucial difference when your dog is in the field (far from the veterinarian's office). Furthermore, it seems that, once you reach the veterinarian, less anti-venom may be required, which would be good for both your dog and your wallet. Again, this is anecdotal, and other studies have shown no significant difference in outcome.



### How Long Does It Last?

The duration of efficacy is also often overlooked. The typical dosage is usually considered to be one booster at one month and yearly after that. However, this dosage is based on a six-month snake season (at the clinic where I work, we treated our

first snake bite of the season on March 1, indicating a snake season much longer than six months). Also, the maximum efficacy is reached four to six weeks after injection. Subsequently, the manufacturer recommends that, depending on the exposure and weight of your dog (less than 25 pounds), you may need to add an additional booster in the initial sequence and/or consider boosters for your dog every four months. Refer to the Red Rock website for specific dosing and scheduling recommendations and, as always, discuss options with your veterinarian.

### Which Snakes Does It Protect Against?

Also realize that the vaccine was designed specifically to protect against the Western Diamondback. The manufacturer claims that it also provides protection against the Western Rattlesnake (including the Prairie, Great Basin, Northern, and Southern Pacific Rattlesnakes), Sidewinder, Timber Rattlesnake, Massasauga, and Copperhead, plus partial protection against the Eastern Diamondback Rattlesnake. It is important to note that it provides NO protection against Water Moccasins (Cottonmouths), Mojave Rattlesnakes, or Coral Snakes.



## Side Effects:

It's also important to consider the potential side effects of the vaccine. All vaccines have the potential for reactions. While we often hear stories of unfortunate and frightening side effects, to date it appears that the rattlesnake vaccine has a similar reaction rate and intensity as most other vaccines, so consider how you and your veterinarian feel about other vaccines. Perhaps the biggest difference with this vaccine is that you may need to administer it two to three times more often than others.

## The Answer Is Clear: Yes, No, Sometimes

So perhaps the real question is what are you willing to invest/risk for the potential of an extra hour and reduced treatments when exposed to certain types of rattlesnakes? Answers will vary from handler to handler and even from dog to dog with the same handler. If you choose to vaccinate, then make sure you have a dosing schedule that matches your exposure.

## The Bite

What if your dog is bitten? Always remember that, whether or not you vaccinate, your protocol for dealing with snakebites is exactly the same. Before you head out into the field, make sure you know if your family/team veterinarian is available, where the closest emergency center is, and where the closest anti-venom is. Anti-venom is sometimes in short supply, so call before you go to ensure supply. If it's not, keep calling until you find it. Make sure everyone on your team has this information in their phones/GPS and written down. How quickly you can get definitive care for your dog—that's the most critical difference you can make. Don't attempt any medical care yourself other than keeping the dog calm and reducing activity. Carry the dog if you can. Hyperbaric treatment has also been shown to dramatically reduce tissue damage and speed the recovery process. After all, once the emergency phase has passed, you'll be thinking about the fastest, most easeful way to get back in the field!

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