

BENADRYL DOES NOT FIX SNAKEBITES

Note: This post was written by our very own Dr. Nick Brandehoff, emergency physician and medical toxicologist. Please heed his advice and spread the word that Benadryl is not an appropriate treatment for snakebites in humans or pets!

I wanted to address the poor information about the use of Benadryl (diphenhydramine) making the rounds on several snakebite and outdoor forums. Benadryl is ineffective for treating a venomous snakebite, even as a temporizing measure in the back country, for the following reasons:

1) Pit viper envenomations in the US cause local tissue injury from direct venom effect. The cell death causes swelling and pain from the release of intracellular contents as the cell dies. Furthermore, venom causes blood vessels to become “leaky” resulting in further swelling, redness, and pain as fluid leaves our blood vessels and enter the tissues. Benadryl does nothing to negate these effects.

2) Systemic symptoms of envenomation are rare but may include nausea, vomiting, low blood pressure, swelling of the throat, bleeding, etc. These are also venom induced and are not reversed with Benadryl.

3) Allergic reactions can happen from a snakebite but are very rare and if there are systemic signs as discussed above, the acute treatment is epinephrine, not Benadryl (or steroids, etc). Benadryl and other drugs can be used in conjunction with epinephrine at the hospital to keep the allergic reaction from rebounding.

4) Comparing bee venom and snake venom to assume Benadryl will work is not congruent. Bee venom specially targets cells causing release of histamine which results in swelling, pain, redness, and allergic reactions. This is similar to the pathway for non-venom induced allergic reactions. Benadryl is a “antihistamine”, so the mechanism to stop the reaction makes Benadryl a good drug for this scenario. This is not the case for snake venoms, which work via different mechanisms.

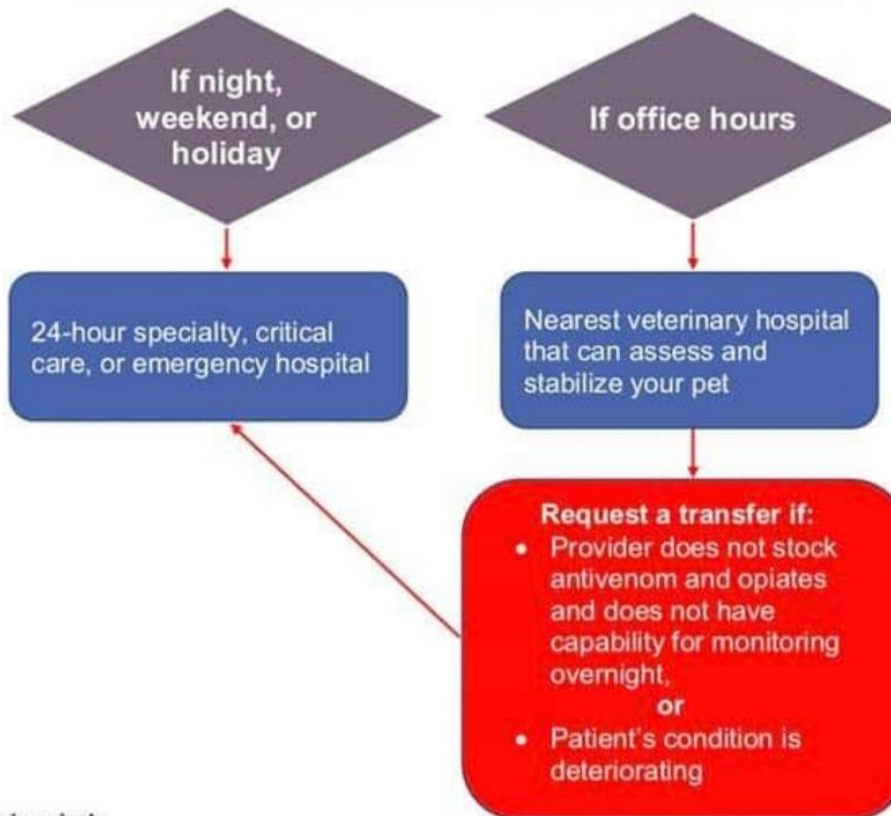
In short, Benadryl is not effective for snake envenomations in humans or other animals. Please stop sharing this information. Antivenom along with proper supportive care are the only effective treatments supported by peer-reviewed literature.

- Nick Brandehoff, MD

Snakebite Guidelines for Pet Owners

Jacquelyn H. Burns, DVM

- Distance yourself and pets from the snake
- Take a photo of snake if possible
- Remove collars, leashes, or harnesses
- Avoid excitement or strenuous activity
- Seek veterinary care immediately!



Keep in mind:

- After hours, do not waste valuable time trying to find a local veterinarian to treat your pet. Proceed to the nearest regional after-hour emergency clinic as soon as possible (even if it is three hours away)
- There are no limitations on when antivenom may be given. Even if you do not find your injured pet until the next day, you should still take the above steps.
- Many providers can provide excellent care during the day, but may need to transfer to a regional emergency clinic for overnight care

Join the [National Snakebite Support Facebook group](#) for prompt snakebite support

TREATING PIT VIPER ENVENOMATIONS IN DOGS AND CATS: DOS AND DON'TS
Jacquelyn H. Burns, DVM

INDICATED

Recommended	Why
Antivenom	Nothing else addresses swelling, bruising, tissue damage, pain, hematologic changes, and long-term effects like antivenom administered promptly
IV Fluids	Precise control of patient hydration
Pain management	Pit viper envenomation is an extremely painful condition
Blood test monitoring	Help assess the progression or regression of hematologic changes

CONTRAINDICATED

Recommended against	Why not
NSAIDS	NSAIDS such as aspirin or ibuprofen increase bleeding tendencies which are already increased due to the venom
Subcutaneous fluids	Administering fluids under the skin causes some bruising. The tendency to bruise is already increased due to the venom.

OF NO BENEFIT / NOT INDICATED

Of No Benefit	Why Not
Benadryl	Benadryl is an antihistamine that is useful in treating swelling and inflammation mediated by a body chemical called histamine. Histamines are released by the body in cases of allergy, allergic reactions, bee, wasp, and hornet stings. Histamines are <i>not released</i> during snake envenomations, so using antihistamines to address swelling related to venom is of zero benefit. Swelling in envenomation is caused by massive tissue damage mediated by hemotoxins, cytotoxins, and myotoxins, not by histamine release.
Corticosteroids	Corticosteroids or "cortisone" is of no benefit in addressing swelling, redness, bruising or pain caused by the hemotoxins, cytotoxins, and myotoxins in snake venom.
Antibiotics	Antibiotics prescribed during the initial treatment of envenomation are unnecessary. Antibiotics should be prescribed <i>only</i> if infection has been diagnosed.

For more information, join the [National Veterinary Snakebite Support](#) Facebook page.