

# NEWS FROM THE PIT

Arizona Poison and Drug Information Center



## Only Time Will Tell

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Imagine this: You're outside under the wide blue sky, the sun warm on your shoulders, the desert quiet except for the breeze rustling through the undergrowth. Suddenly you feel a quick sting, seeing the tail of what looks like a rattlesnake slither between the rocks you were standing beside. Your heart starts to pound with fear, but strangely nothing has happened. There's no pain, no swelling, and no bruising. Just two tiny pinpricks on your ankle. It feels more like when you poked yourself on a cholla cactus than anything else. So now you're wondering: *Am I actually okay? Do I really need to go to the hospital? Was that even a rattlesnake? Could it have been a dry bite with no venom? How long should I wait to find out? Am I overreacting or underreacting?*

## NEWSLETTER HIGHLIGHTS

Delayed symptoms in rattlesnake bite patients

**Image 1: Wester Diamondback Rattlesnake (*Crotalus atrox*)**

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Doctors struggle to answer those same questions! A bite that seems harmless at first can change course quickly. Most people start showing symptoms soon after being bitten, but not always. That's why the Arizona Poison and Drug Information Center recommends everyone bitten by a rattlesnake should go straight to the hospital and stay there for about 12 hours, even if they feel perfectly fine. But why wait that long? Because in very rare cases, reports suggest people haven't shown any symptoms until 18 hours after being bitten. Once the symptoms begin, treatment is needed right away.

Doctors can give antivenom to stop the effects of venom, but it can't undo any damage that's already been done. Being at the hospital helps doctors act fast if things change, and things can change quickly. Part of the reason this can happen so quickly has to do with how venom works. Venom isn't active until it gets injected into our body, otherwise the snake would be in trouble too! As soon as we get bitten, changes in heat and pH will activate parts of the venom and start a chain reaction. Sometimes this happens immediately, but not always. Because of this, rattlesnake bites can be unpredictable.

Recently, we looked at our rattlesnake bite records to better understand the delayed onset of symptoms. Less than 1% of the cases we looked at had symptoms starting more than 4 hours after the bite! In those few cases, symptoms began between 4.5 and 6.5 hours after the bite. We looked to see if these cases had any similarities that could show us risk factors. Interestingly, everyone with delayed symptoms was bitten near the ankle, which might mean that where the snake bites affects how quickly symptoms appear. Additionally, the cases with delayed symptom development needed only one dose of antivenom, while the average amount received by those bitten is at least two doses. This may mean that these bites were mild in nature.

Although rare, delayed symptoms can happen and it's dangerous to ignore the possibility. Missing or delaying treatment can lead to serious and permanent damage. That's why the Arizona Poison and Drug Information Center says it's safest for anyone who's been bitten by a rattlesnake to stay in the hospital for at least 12 hours to ensure symptoms that aren't immediately present are caught and treated.

So remember: if you or someone you know is ever bitten by a rattlesnake, go to the hospital right away. Every bite deserves immediate attention. When it comes to our Arizona rattlesnakes, it's always better to be safe than sorry!

