

NEWS FROM THE PIT

Arizona Poison and Drug Information Center



Tales from the Pit: The Ones You Don't See Coming

By: Tyler Hoelscher MD

From the serpent in Eden, to the Egyptian Apophis, the Indian Naga, the Nordic Jormungand, and Quetzalcoatl of Mesoamerica, humanity has a history rich with tales of snakes. Snakes have meant many things to many people. Some represent harmless or even benevolent creator deities like Nüwa of China. Others, like the Ouroboros, represent infinity with their long bodies and tendency to coil into a ring. Still others have been associated with medicine and healing as seen in the rod of Asclepius, a common symbol depicted in hospitals and medical schools. Not surprisingly, some snakes, like the serpent common to the Abrahamic faiths, are expressly evil creatures associated with death and hell. Honestly, this last category may be the most justifiable by common sense as, even to this day, human interactions with snakes can go very wrong. It only takes witnessing one bad snakebite to permanently color one's view of snakes.

NEWSLETTER HIGHLIGHTS

Documenting some of our most unusual rattlesnake bite cases.

Image 1: Red Diamond Rattlesnake
(*Crotalus ruber*)

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Fear and respect for snakes are very common traits in humankind. While true ophidiophobia (the pathological fear of snakes) is relatively rare, if you ask a random person on the street what they are afraid of, snakes will be a very common answer. Now, if you are one of these people who gets nervous thinking about our legless friends, I'll warn you right now, the rest of this newsletter may give you nightmares. This month, I'll be writing about true stories of snakes that have found their way into people's lives, and if after reading this newsletter you find yourself nervously checking under your bed and behind your toilet, you have been warned.

Is that my Engine Rattling?

The protagonist of our first story, a Tucson woman, was climbing into her car when she felt a sharp pain in her ankle. Looking down she saw that an impressively large rattlesnake had nestled its way into the mat on the floor of the driver's seat. She responsibly called 911 and unfortunately suffered a life-threatening reaction to the venom requiring a medication called norepinephrine (think adrenaline) to raise her blood pressure and received a total of 50 vials of antivenom. She also had the misfortune of developing bruising up her bitten leg and even remote from the bite site itself so severe that her hemoglobin, a marker for anemia due to bleeding, had dropped to about 60% of its baseline and she very nearly required a blood transfusion.

How did that snake find its way into her car? That I wish I could answer, but unfortunately, all I can do is speculate. First, if a car door is left open, climbing into the car is child's play for an adult snake. The gap between the ground and the floor of most sedans and SUVs is very easy for an adult snake to traverse. That said, our patient did not leave her car doors open. Well, how about windows? The average vehicle's windows are too high for most snakes to climb up to unless they have a little help, like a convenient tree or bush to serve as a ladder. Now, can Arizona rattlesnakes climb trees? Absolutely, and a snake can very easily descend from a mesquite or palo verde that your car is parked under to find its way through a window. Now, our patient also states she doesn't leave her car's windows open. So, as to how our unfortunate patient came to encounter this unfriendly viper, to this day, I cannot be sure; but one thing I am sure of is that since then, I've been checking the floor of my car before I climb in.



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Submerged Serpent

Our second story involves a gentleman enjoying a swim in the comfort of his own yard when he felt a sharp pain in his right shoulder. It isn't uncommon to see bees and wasps around swimming pools but when our patient turned to look over his shoulder, he was staring into the eyes of a juvenile rattlesnake. This patient developed swelling of the shoulder complicated by low platelets which presents an interesting challenge in healthcare as swelling in the shoulder is usually only a few inches from the throat. If significant swelling reaches the throat there is a risk of airway obstruction leading to death by asphyxiation. Fortunately, our patient was appropriately treated with timely antivenom and responded well.



This also begs the question, Arizona rattlesnakes are desert animals, what was that snake doing in the pool? Can snakes swim? The short answer: yes. There are many snakes, including those like the sea krait, that spend the vast majority of their lives in water and there are others like the water moccasin which spend significant amounts of time both in water and on land. Now, our rattlesnakes do not encounter nearly as much water as these other species, but upon encountering water, they are very functional swimmers. But can they bite while swimming? Our patient would say yes.



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Monster Under the Couch

The main character of the next story is a gentleman who we find in his own home, asleep on the couch. This was during autumn, in southern Arizona. The next morning, he awoke with a painful, bruised, swollen index finger. Justifiably confused, he presented to the emergency department where an astute ER doc chose to call the poison control center. Fortunately, he was able to send us a photograph of the patient's finger, and at the request of our medical director, they drew some labs. Labs showed the very characteristic low platelets and clotting proteins that are seen in rattlesnake envenomation. Out of concern, we recommended EMS check under the couch in question, and sure enough, they found the culprit, coiled up and angry.

This case demonstrates a few things. One is that snakes are fully capable of finding their way into people's homes. Any slightly open door or window can become a point of entry for snakes, which, as I've previously explained, are fully capable of climbing plants and furniture as needed to make their way to a window. This also demonstrates how active snakes become in the Fall, the subject of [October's newsletter](#). Additionally, this patient didn't even notice the initial bite which, while rare, does happen. We occasionally have to identify and treat rattlesnake envenomations based entirely off of a physical exam and abnormal laboratory studies.

A Very Realistic Model

Our final story is a brief one, but one that, given the season, I couldn't skip it. The night was Halloween in Tucson. Our subject is a young boy who is out trick-or-treating with his family. Our hero noticed that somebody's decorative plastic snake had been kicked to the sidewalk, and out of concern that it might be stepped on and broken, chose to pick it up to relocate it to the yard. Upon picking up the plastic toy, it turned and struck his hand, and that was when the patient noticed that this was no plastic decoration, but a very real venomous critter, out enjoying the Halloween festivities.



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Fortunately, all four of our patients were appropriately treated with antivenom and did very well with treatment. Unfortunately, they were people who found snakes in the places where they live. The long and short of it is that nowhere is safe from snakes and, despite our best efforts, we have had snakebites happen in the absolute last places you would expect. Snake safety involves identifying risky areas in the home and property that can be closed off to prevent snake entry, but ultimately the last line of defense is being aware of your surroundings and watching where you step. Think of snakes as military special forces: they can climb, swim, sneak into vehicles, find their way through doors into homes and wait silently, unnoticed for days. They can even bite and inject venom without their victim realizing it. So, in the spirit of the Halloween holiday, if you think you're safe from snakes in your own home, yard, car, or even swimming pool; you're not. Sleep well tonight!

