# The Mythical Mohave green



## Myth: There are rattlesnakes, and there are Mohave Greens.



**Fact:** Mohave rattlesnakes are no more unique than any other rattlesnake in the genus Crotalus, which includes all rattlers except the little pigmy rattlesnakes and massasaugas. They are most closely related to prairie and western rattlesnakes. Mohave greens are Mohave rattlesnakes with a greenish tint; not a subspecies or an especially toxic or aggressive form of Mohave rattlesnakes.



## Myth: Mohave rattlesnakes are aggressive, attack, and chase people.



**Fact:** Rattlesnakes want nothing to do with creatures the size of people and Mohaves are no different. Imagine an animal the size of a tree coming along and bothering you. Would you be angry or aggressive, as rattlesnakes are often described? Of course not! You'd be scared to death. You'd probably first try to avoid being detected. If that didn't work, you might try to look and act as big and dangerous as possible (like waving your arms and yelling at a mountain lion). Only as a last resort would you try to fight – probably kicking, scratching and biting to get away. Rattlesnakes are no different... except they cannot kick or scratch. The majority of snakebites occur when people are handling or trying to kill the snake. The rest are due to people putting their hands and feet where they can't see them. People do not show up in emergency rooms claiming to have been chased or attacked by unprovoked rattlesnakes. Watching where you place your hands and feet and leaving rattlesnakes alone when you come across them would prevent virtually all rattlesnake bites.

In our experience, rattlesnakes appear to chase or attack in two situations: a mother protecting her babies or a snake trying to escape to shelter behind us. In our thousands of encounters with wild Mohaves and other rattlesnakes, we've never observed an attack and have found rattlesnakes to be rather timid creatures.

These days, everyone has a video camera in their pocket... yet we are still anxiously awaiting the first YouTube video of a rattlesnake attack!





#### Myth: Mohaves are the most deadly rattlesnake.



Fact: Human fatalities from Mohave rattlesnake bites are very rare. Over the last four decades in southern Arizona, Mohave rattlesnakes have bitten many people but killed almost none and there have been no fatalities in recent memory in California. The last known fatality from a Mohave rattlesnake was in Yavapai County, Arizona in 2007: a 63-year-old woman apparently suffered an immediate allergic reaction that compromised her airway before paramedics arrived and ultimately proved fatal. Such acute reactions are extraordinarily rare and not limited to Mohave bites.

The deadly reputation of Mohave rattlesnakes is traceable to venom studies in mice known as LD50 tests, which determine the venom dose that is lethal (LD = lethal dose) to 50% of the test animals. In such tests, Mohave rattlesnake venom routinely ranks as one of the most lethal to laboratory mice, yet such studies do not always translate well to humans.



### Myth: All Mohaves have strongly neurotoxic venom.



Fact: The venom of Mohave rattlesnakes is incredibly complex and variable, like other rattlesnake species. Throughout most of their range, including the deserts of California, western and southeastern Arizona, and small areas of Utah, New Mexico, and Texas, Mohaves produce a potent neurotoxin called Mojave toxin but lack the tissue-destroying components found in many other rattlesnake venoms. However, Mohaves in southcentral Arizona produces a venom that destroys tissue but lacks Mojave toxin. Not surprisingly, there is an intergrade zone where the two populations meet and Mohaves in this area produce venom with both components.

To be fair, the venoms of many rattlesnake species contain neurotoxins similar to Mojave toxin, including midget faded, canebrake, and southern Pacific rattlesnakes. Indeed, neurological signs and symptoms following some snakebites have repeatedly prompted naïve medical experts to blame Mohaves in areas where southern Pacific rattlesnakes are common but many miles from the deserts where Mohaves live.



#### Myth: There is no treatment for Mohave rattlesnake bites.



Fact: Mohave rattlesnake bites are treatable with the same antivenom and procedure used for other rattlesnakes. In fact, Mohave rattlesnake venom is used to make CroFab®, the only antivenom currently available in the United States, although CroFab® is also effective against bites by other rattlesnakes.

