



Venomous Reptile Facts

What are venomous reptiles?

Venomous reptiles are those snakes and lizards that can introduce venom into your bloodstream through a bite. Most venomous snakes have specialized, hollow, needle-like teeth called fangs that puncture the skin and inject venom. The venomous lizards do not have fangs, rather the venom flows from glands at the base of the mandible through grooves along the exterior of the teeth. There are only two species of venomous lizards (Gila monster and beaded lizard). They are distributed from SW United States to Guatemala and do not generally pose a threat to human health.

There are over 500 species of venomous snakes, distributed worldwide. They can be grouped into two main categories, rear-fanged and front-fanged. Most rear-fanged snakes deliver small amounts of venom slowly and therefore are not a major health threat to humans. There are notable exceptions, such as the African boomslang (*Dispholidus typus*) which has been responsible for human fatalities. Front-fanged snakes are the most common and recognizable venomous snakes and are responsible for human fatalities world-wide. They include the pit vipers (rattlesnakes and their relatives) and the elapids (cobras, coral snakes, and sea snakes).

Are all snake venoms the same?

There are an amazing variety of venom types, but all have one or more of the following components: hemorrhagins, hemolysins, myotoxins, and neurotoxins; therefore, bite treatment requires knowing the identity of the species responsible.

How do I protect myself from being bitten?

Treat and handle all venomous reptiles with respect and caution. Only properly trained personnel should ever attempt to handle a venomous snake. There are very few situations that require picking up or holding a venomous snake in your hands. Always use the proper equipment (snake hook, tongs, tubes) and handle venomous snakes only when absolutely necessary (cage cleaning, experimental procedures, etc).

Is there standard first aid treatment for venomous reptile bites?

The most important action is to prevent additional bites (to you and the victim) by isolating the snake (e.g. throw a bucket or cage on top of the snake) and making sure that the room is secure or locked with an obvious warning sign until it can be secured. Next, immobilize the affected area on the victim if possible (e.g., an arm sling will do for a bite on the hand or lower arm), and keep the patient as calm and still as possible. Call for assistance immediately so the patient can be transported to the nearest medical facility that is equipped to treat venomous snakebite.

How do I know if my local emergency medical facility is equipped to treat a venomous snake bite?

Depending on the condition of the victim, an emergency facility may decide to treat a venomous snakebite by administering antivenin (sometimes referred to as anti-venom). Not all hospitals routinely carry antivenin and those that do may only have the antivenin for the most common species in their geographic area. The most important part of working with venomous snakes is having an emergency plan in place. This includes making calls and visits to local hospitals to inquire about the availability of anti-venom that will treat the species of snake you are working with. In some instances, you may have to work with a hospital to purchase the antivenin.