

People problems.
although many
people are under the



**ASSIGN
BUSTER**

People are usually cautioned to stay away from snakes and their venomous bites, but what most people don't know is that their lethal venoms have actually saved dozens of lives already. Their venoms contain many enzymes and toxins beneficial to the human body.

Scientists are currently studying this phenomenon in an attempt to further utilize the potential snake venom has to cure disease and prevent a wide range of serious medical problems. Although many people are under the impression that snake venom is harmful to people, its enzymes actually have the potential to effectively treat a variety of serious illnesses as medicinal drugs. The venom found inside a snake's hollow fangs is known as one of nature's most efficient killers. It is used by snakes to defend themselves from predators, to catch their prey, and to aid with digestion. It is injected into the prey's bloodstream to immobilise them as the " venom behaves like a modified form of saliva that is introduced into prey items via specialised hollowed teeth known as fangs" (What is Snake Venom? 1).

Venomous snake bites can be deadly if left untreated. Every snake has its own unique mixture of " dozens, even hundreds, of toxins (that) can be delivered in a single bite, some with redundant jobs and others with unique ones" (Holland 6).

The toxic proteins in venom is honed to work together to deliver an adverse interference on an organism's functions. The molecules target different areas and have different effects ranging from paralyzation to stopping the heart to triggering internal bleeding. Because of their venom's harmful capabilities, people are cautioned to stay away from snakes and are ignorant of their potential to change the face of medicine. There are several different types of

<https://assignbuster.com/people-problems-although-many-people-are-under-the/>

snake toxins which all have a different effects for snakes to efficiently catch their prey. Most toxins have the same purpose: to either kill or weaken prey; “ Some go for the nervous system, paralyzing by blocking messages between nerves and muscle. Some eat away at molecules so that cells and tissues collapse...(venom) can kill by clotting blood and stopping the heart or by..

.. triggering a killer bleed” (Holland 6). Snake venom is usually composed of a mixture of multiple toxins, to deliver more than one effect on the targeted organism. The main types of toxins include neurotoxins, hemotoxins, coagulants, anticoagulants, and cytotoxins.

Neurotoxins disrupt communication between the nervous system and muscles, resulting in paralysis. Hemotoxins destroy red blood cells which wreaks havoc on the heart and cardiovascular system. Coagulants and anticoagulants cause and decrease blood clots, respectively. Cytotoxins have a localised effect on areas it comes in contact with and mostly breaks down tissue. Scientists and biochemists believe that they can utilize these toxins and use them in medicine.

To do that though, scientists would have to figure out how to separate the toxins and know what dose to give as, “ a small dose of something might be a medicine, and a large dose becomes a poison” (Scutti 12). There are hundreds, even thousands of toxins and other enzymes found in snake venom, which is what makes this objective even harder to attain. Platelets are blood cells found in plasma that form blood clots to stop bleeding.

Normally, platelets activate by becoming sticky and clumping together, but “irregular platelet aggregation caused by disease can lead to dangerous clots or even stroke if a clot clogs or bursts in a vessel that carries oxygen and nutrients to the brain” (science daily 4). This can be really harmful to humans since platelets are one of the body’s most important defense against disease. Luckily, there’s prospective that snake venom can be a solution. It contains a variety of toxins, some of “ those toxins prevent platelets from clotting, which can lead to profuse bleeding in snake victims. Others.

.. potently activate platelets, which results in blood clots” (science daily 7). Scientists believe there’s a way to utilize these toxins by figuring out which proteins can increase platelets and which ones decrease them to cancel out a platelet deficiency or surplus. Incorporating snake venom into clot medicine can fundamentally save thousands of lives of people who suffer from thrombocytosis and other platelet related disorders.

Not only can snake venom potentially relieve blood clots and stroke, it may be able to help prevent cancer or effectively stop its growth before it’s too late to repair the damage. Venom contains certain chemical components which “ basically inhibit cell proliferation and promote cell death” (Shanbhag 5). They do this by preventing migration of cancer cells, controlling tumor size, and inflicting cell membrane damage.