



## Snake bites in Goa

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**Dr. R. G. Wiseman Pinto**

The word Snake comes from the old English word Snaca , German word The Latin term serpent and the Sanskrit is Naga or naked, has no hair, no legs .

Globally there are 5.4 million snake bites per year .Of these 3 to 4 million are seen in India. Goa sees around 500 to 600 snake bites annually .  
i.e. 1 or 2 Snake bites a day during the monsoons.

A study published in the International Journal The Academic. International journal of Multi-disciplinary Research in June 2025 by Dr Chetan Karekar and Dr Purvi Mishal of the Forensic Medicine Department Goa Medical College ,between 2020 to 2024 there were 1663 Snake bite cases in Goa , and 30 deaths in 5 years ,more during the monsoons .The study also depicts the common age distribution 21 to 30 years and the male to female ratio and sites in the body of the bites and the geographical distribution in North Goa South Goa and adjoining Maharashtra and Karnataka .the areas commonly involved are rural areas Forests. Agricultural areas .Even in urban areas due to widespread deforestation and construction activity the towns are also not spared of snakes .

Just like Registry for Diabetes and Cancer and life style diseases the need of the hour , long overdue is to have an all Goa Registry of Snake bites and deaths that will map the Health facilities, the ambulances to be stationed , the supply of Anti Snake venom vials checking their expiry dates and regular stock maintain enance .Today AI Artificial Intelligence, will help this .In addition the Ventilators , oxygen supply and simple blood tests like clotting time and other tests which are crucial in snake bite poisoning treatment and follow up

Goa is now producing 200 MBBS Seats which will rise to 250 soon .  
So medical staff , technicians. Nurses and class IV staff as well as ambulances with trained staff to handle all the emergencies including snake bit first aid care .

Dr Ramnath Nevrenkar Assistant Professor of Medicine GMC has put up a proposal to start a project and study of Snake bites Registry in Goa.

It has been delayed by bureaucratic tangle that is very common

The ethics approval as well as the Administrative approvals must be given to this study on a war footing.

This will be evidence based and Scientific based so that the Health authorities take immediate measures to tackle snake bite cases in the most optimum manner.

The same was a study conducted by Prof Dr Wiseman Pinto in 2008 on the Causes of Death and based on this Research Study the Government of Goa launched the Diabetes Programme and Cancer prevention Programme. Dr Pinto was instrumental in launching the Diabetes Registry and Cancer registry in Goa in 2008.

The Snake bites are divided into Neurotoxic. Hemotoxic , myotoxic and mixed .

It may be noted that most of the snakes are Non-poisonous.

There are a lot of first aid measures to be given like immobilization of the affected part , washing the wound with water. Reassuring the person to be calm and cool. to remove the rings ,watches and jewellery. Remove the tight clothing. No alcohol ,no coffee , try to identify the snake or take a picture with the mobile if possible., no tying of tourniquet or rope. No cutting. No sucking. No ice , no heat no traditional remedies or herbs.

The old remedies may delay the shifting to the nearest Health centre or hospital which has the facilities and Anti Snake Venom and trained staff.

Ventilators and oxygen .

The Anti Snake Venom is given intravenously the dose calculated by the doctor and the condition of the patient closely monitored by blood tests. And other clinical parameters and other Investigations.

The Equine Immunoglobulins in the Anti Snake Venom neutralize both toxins of the snake It is Polyvalent and acts against the 4 main types of snakes encountered in India .

Goa Medical College in 2008 when Prof Dr Wiseman Pinto was the Professor in charge of medical education initiated the Visiting Faculty Programme where in Prof Dr V.V. Pillai From Amrita Institute Kochi was invited to Goa. and trained our doctors and students in GMC .He is India's top expert in Snake bites and Venoms

GMC also brought snake catchers or rescuers to teach our doctors to differentiate the different types of snakes.

It is very important for all the Hospitals to update all the facilities. ,like Ventilators. Oxygen supply Blood tests , ECG , EEG , Renal function tests , liver function tests ,etc .

Today Toxicology tests having Bioassays of the poison from the wound site using ELISA ,RIA Radioimmunoassay. etc

Technology advances at galloping pace .

Our doctors in GMC are highly competent to treat Snake bites over the years .

Many patients have been cured

Few patients need ICU care Ventilators and Dialysis.

In summary the Health authorities must get their act together to expedite the different facilities. Anti Snake Venom , the stocks. the staff , Ventilators etc .

Respiratory distress. Paralysis. And other parameters must be monitored.

Ambulances and the paramedical staff must be well trained

Also public education , school Health education , resorts in Forests, trekkers, farmers and Agricultural workers all must be given Health education through social media. Print media, electronic media and education in schools and colleges and village panchayats.

While going in the fields and Forests it is important to wear gum boots or boots and long pants and use torches at night or mobile lights .

In Brazil there is a Snake Island called Ilha de Quemada Grand off the coast of San Paulo wherein there are thousands of poisonous snakes which prey on migratory birds  
On this islands tourists are not allowed .It is estimated that there is one snake per square meter.

We must make Goa and Goans healthy and happy and fit.

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