

SA's alarming outbreak of rabies in dogs: Vaccination and awareness are key to prevention

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Rabies is a disease that can be prevented by vaccination

Rabies is a frightening viral infection and the only infectious disease that carries a 100% mortality in any species (including humans) once clinical signs appear. In fact, the World Health Organisation (WHO) reports that more than 59 000 people die of rabies every year. According to Prof Andrew Leisewitz, Veterinary Specialist Physician at the University of Pretoria's Faculty of Veterinary Science and an expert on the disease, South Africa is currently experiencing an unprecedented outbreak of rabies in dogs especially in the Eastern Cape.

Reports from the Eastern Cape's Department of Rural Development and Agrarian Reform have again highlighted this deadly yet 100% preventable disease. Since January 2021, more than 400 cases have been confirmed in dogs in the Nelson Mandela Bay Municipality alone, 42 cases in the Amathole district and 27 cases in the OR Tambo district in that province.

According to the [National Institute of Communicable Diseases \(NICD\)](#), another hotspot is KwaZulu-Natal where eThekweni and King Cetshwayo districts have recorded close to 300 cases in dogs. The first rabies cases in decades have also been reported in dogs around Cape Town.

The NICD stresses that the increase of human rabies cases in South Africa is related to outbreaks of rabies in dogs. As of 14 December 2021, a total of 19 laboratory-confirmed human rabies cases has been reported in South Africa for 2021. The cases are from Eastern Cape (n=9), KwaZulu-Natal (n=6) and Limpopo (n=4) provinces.

A disturbing factor, Prof Leisewitz says, is that young people are the most common affected and 4 out of 10 human infections occur in children under 15 years of age.

But what exactly is rabies? Rabies is caused by a virus that humans and animals can get following exposure to the saliva of a rabid animal, says Prof Jannie Crafford, also an expert on the disease and associate professor in immunology in the Faculty's [Department of Veterinary Tropical Diseases](#). He explains that the disease is a vaccine preventable infection of the brain that is almost 100% fatal once clinical signs develop.

The rabies virus does not survive for very long outside of an infected host and is quickly inactivated by sunlight and drying. All warm blooded animals are susceptible to infection but only mammals are

known vectors and reservoirs. It is almost always transmitted by saliva following a bite from an infected animal or contact of saliva with broken skin or mucous membranes like the eyes nose or mouth.

Dogs are the source of 99% of human rabies deaths. In South Africa the feral dog is the most important species involved in transmission, however the, black-backed jackal, bat-eared fox and yellow mongoose also play a role in maintaining the virus in the wild-life population. Animals with rabies usually display abnormal behaviour like aggression, or wild animals could appear to be tame. There is usually signs of paralysis and excessive salivation. The incubation period for rabies is typically 1 to 2 months but can vary between 1 week and 1 year depending on how much virus and where the virus enters the body.

Referring to the fact that so many cases are seen in children, Prof Crafford says that children, innocent of the risks, often approach and play with animals they don't know. They are also at higher risk of bite wounds to the head that can lead to more rapid onset of clinical signs. Most people don't realise that once clinical signs set in the outcome is always fatal.

The good news however is that rabies is a disease that can be prevented by vaccination and simply entails adequate animal vaccination, avoiding contact with wild animals and proper education of those at risk. Rabies in humans is preventable with the correct and immediate treatment following exposure. It is of utmost importance that any person that is exposed to the saliva from any unknown suspicious dog or wild animal must wash the wound extensively with soap and water for 10 minutes and seek immediate medical intervention, crucially on the same day.

TO VIEW AN INFOGRAPHIC ABOUT RABIES CLICK HERE <https://bit.ly/3hUTTeZ> (Source: Department of Veterinary Tropical Diseases)

It is obvious that veterinarians have to play a central role in the control of rabies. According to Prof Crafford, the prevention of rabies starts with the animal owner. They should ensure that all their dogs and cats are regularly vaccinated against rabies. They should also try to reduce the exposure of their pets to possible infected animals by not letting them roam free. "Spaying or neutering your pets will also reduce their tendency to roam or fight, thereby reducing the risk of being exposed to other rabid animals. Under no circumstances should any unknown or stray dog be handled or approached especially if they display any behavioural disorders like aggression," Prof Crafford says.



Prof Leisewitz says that it is an accepted fact that in order to significantly affect the transmission rate, there would need to be vaccine coverage of around 70% in the dog population. Rabies can occur anywhere in South Africa but rural areas are particularly at risk; these include KwaZulu-Natal, Rustenburg and surrounds in North West, northern Limpopo, eastern and south-eastern Mpumalanga and Eastern Cape Province. Rabies is a controlled disease in South Africa and all suspected rabid animals should be reported to the nearest state veterinarian, animal health technician or to the police.

In terms of legislation (the Animal Diseases Act, 1984 (Act No 35 of 1984), owners of dogs and cats must have their pets vaccinated against rabies.

WHAT YOU NEED TO KNOW ABOUT RABIES NICD infographic <https://bit.ly/3pCVM42> (Source: NICD)

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