

# Rabies can be prevented. Be aware of its dangers.

Posted on **September 23, 2022**



*We must all work together to achieve the #ZeroBy30 goal.*

28 September 2022 is [#WorldRabiesDay](#). The theme for this year is “Rabies: One Health, Zero Deaths”, emphasising the need for us all to work together to achieve the [#ZeroBy30](#) goal.

*This article by Dr Claude Sabeta and Prof Jannie Crafford, both in the Faculty of Veterinary Science's Department of Veterinary Tropical Diseases highlights the dangers of the disease, how it can be prevented and what must be done if someone was bitten by a potentially rabid animal.*

Rabies is one of the oldest diseases known in medical history and nearly every community has heard about rabies. At least 59 000 humans succumb to the disease every year. The majority of the human deaths to this horrible disease occur in the rural areas in Asia and Africa. Unfortunately, about 50% of the human deaths occur in children under 15 years of age. Rabies is a vaccine-preventable viral disease that causes damage to the brain in infected animals and humans. Rabies is nearly 100% fatal once clinical symptoms appear. Animal rabies is present throughout South Africa and up to ten human cases are confirmed annually. The majority of human rabies cases in South Africa are associated with dog bites.

Historically, the disease was first confirmed in South Africa following importation of a rabid Terrier dog in 1892 in Port Elizabeth from the United Kingdom. The domestic dog is the most important host that is responsible for transmitting the rabies virus to other animals and humans throughout South Africa. Currently, the hot spots for rabies in South Africa are the Eastern Cape, Limpopo, Mpumalanga and KwaZulu-Natal. It is important to note that outbreaks of rabies in domestic dogs may occur in any area of South Africa where there are unvaccinated populations of domestic dogs. In addition to the domestic dog, wildlife such as the black-backed jackal, the bat-eared fox and the yellow mongoose are also involved in maintaining the infection, but are not as important as dogs. Any mammal can get rabies but it is not typically reported from small rodents such as mice and rats. There are no rabies viruses reported in bats in South Africa. There are however, “rabies-like” viruses reported rarely in some species of bats that have been associated with two fatal rabies cases in humans in South Africa.

In general, rabies is transmitted through a bite from an animal containing infectious saliva. There are three main categories of risk of transmission of the virus depending on the type of exposure inflicted. For instance, touching or licking of intact skin presents the least risk for rabies transmission, followed by nibbling of uncovered or broken skin. Contact with infectious saliva through bites or scratches, or licks to wounds, grazes, or broken skin, or contact with the lining of the mouth, eye and nose are

examples of high risk exposure. The greatest risk of contracting rabies is posed by bites which penetrate the skin and draw blood as well as licking of mucous membranes and in the process allowing the virus to enter the body. Once the virus enters, it starts to multiply and then enters the nerves from where it moves up the central nervous system until it reaches the brain. This process defines the incubation period before clinical signs appear and may take anything between 2 and 8 weeks, although periods of as long as two years have been recorded. Rabies-infected dogs generally change behaviour. For instance, the infected animal becomes aggressive, often attacking and biting any object. They are easily startled by sudden changes in light and sound and even snap at imaginary objects. Wild animals often become tame and are known to approach human dwellings. The early signs of rabies in humans are generally non-specific and may include fever or headaches, followed by a rapid progression of nervous signs such as confusion, sleepiness, or agitation. It is therefore important that the public should be aware of the signs that are associated with rabies, particularly in dogs, man's best friend.

28 September was declared World Rabies Day to promote awareness on the impact and control of human and animal rabies. The most effective way to reduce the risk of human rabies is to vaccinate dogs and cats to ensure that the disease is not passed onto the owners or the general public. People who have been bitten by potentially rabid animals should immediately wash the wound with soap under running water for at least 15 minutes and seek medical attention. Rabies in humans is preventable but it depends on aggressive wound decontamination and timeous administration of post exposure prophylaxis. It is good to note that these days there are safe and effective vaccines and biologicals available for people who have been bitten by an animal that might have the disease. During the month of September, all pet owners should strive to have their pets vaccinated. Each province will have specific areas where pet owners can take their animals for vaccination at no cost. Pet owners are therefore encouraged to have their pets vaccinated and prevent the spread of the scourge. Rabies kills and you might be the next victim. Spread the word.



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- Published by Chris van Blerk