



**HANDBOOK  
ON  
RABIES**



**ANIMAL WELFARE BOARD OF INDIA**  
(Ministry of Social Justice & Empowerment)

## HANDBOOK ON RABIES

### *What is rabies?*

Rabies is a viral disease that affects the nervous system of mammals. In the last stages of the disease, the virus moves from the brain into the salivary glands and saliva. From there the virus can be transmitted through a bite or by contact with mucous membranes (nose, mouth, and eyes). It is fatal once symptoms occur.

### *What are the major carriers of the disease?*

Rabies is predominantly a disease of wild carnivores but it can affect all warm-blooded animals, including humans.

### *How is it transmitted?*

Rabies is caused by rhabdovirus - a large enveloped bullet-shaped DNA virus. It is very sensitive to heat, light detergents (including ordinary soaps) and disinfectants and cannot survive for long outside the body of an infected animal.

The virus is carried in the saliva of an infected animal. It is not carried through simple contact or through the air. It cannot penetrate intact skin. Nor will licking transfer it. The virus multiplies in the muscle at the site of the wound and then spreads, not in blood but along nerve fibres into the spinal cord and brain. Growth in the brain and cord cause severe nervous disease and death. The virus also spreads from the brain along other nerves to organs including the salivary glands - large amounts of virus are produced and excreted in saliva. This is after the saliva comes in contact with a scratch, abrasion, or open wound in the skin. Bites in general are high-risk exposures. Bites to the head and neck carry the highest risk. Animal contact by itself, such as being in the vicinity of, petting or handling an animal, or coming into contact with the blood, urine or feces of an animal does not constitute exposure and, therefore, does not require post-exposure rabies treatment.

### ***Who can spread rabies?***

The rabies virus can infect any mammal, but infection is most common among certain mammals such as dogs, cats, cows, horses, bats, skunks, foxes, racoons. Rabies can also be spread by animals eating the carcass of infected animals.

### ***Is rabies curable?***

No. Once the symptoms appear the disease is usually considered to be fatal.

### ***What are the signs and symptoms of rabies in animals?***

Symptoms of rabies in animals may include any one or more of the following signs : very excitable, vicious attacks, biting, agitation, restlessness, aggressiveness, lack of fear, excessive salivation, aversion to water, unable to swallow or drink, dilated pupils, muscular dysfunction, coordination or gait irregularities, paralysis, convulsions and eventually death within 10 days. These symptoms are referred to as *furious rabies*.

Some rabid animals do not exhibit typical rabid symptoms. These are generally referred to as *dumb rabies*. These animals may display other symptoms of general illness which may include an avoidance of contact with humans or other animals, lethargy, loss of appetite and eventually death. Some dogs just howl for days, retreat into dark corners. The hind legs give way.

Signs and symptoms of rabies in animals vary greatly. A rabid animal may exhibit a number of classical signs of the disease. Sometimes the dog shows no signs at all and is suddenly found dead, and a post-mortem examination may reveal rabies. A dog may show very mild symptoms of anorexia and listlessness only, and is found dead in three or four days.

### ***Are these symptoms characteristic of rabies only?***

Unfortunately not. Extreme pain, fear or confusion can make an

