



# Rabies

Rabies is a fatal viral infection of the brain that is transmitted by the bite or scratch of an infected mammal. All mammals can transmit rabies. Semi domesticated urban and rural dogs are the main reservoir for rabies in developing countries followed by monkeys, cats and bats. It is common in India, Nepal, Thailand, Vietnam, the Philippines, China, Africa, Central and South America.

India has up to 30,000 deaths per year. 50,000 die worldwide. Cave explorers can be infected by bats saliva either through inhalation or bite. Rabid animals can also transmit the disease by licking injured skin. Children are more at risk because of their smaller size, curiosity and attraction to animals. A bite to the head or hands poses greatest risk due to the rich supply of nerve endings in these areas.

Rabies has an average incubation period of 4 days – 3 months but can develop more than a year after exposure. Pain and tingling at the wound are the only initial symptoms as the virus enters the nervous system. Fever, sore throat, nausea, and headache follow. If untreated, approximately 10 days later marked anxiety and agitation occur followed by hallucinations, bizarre behaviour and paralysis. Hydrophobia (fear of water) and aerophobia (fear of air) are followed by convulsions, heart irregularities, respiratory paralysis and death within a fortnight. ***There is no treatment once the disease is established in the central nervous system. Death is inevitable.***

## Prevention in Travellers

Prevention can be avoided by not getting bitten in the first place, but this is often out of our control. Being aware of dogs can prevent you from wandering into their space or not seeing one approach you. If a dog is charging you, pretending to pick up a rock and throw it at them will often make them turn around and run away from you immediately. When visiting temples in Asia that have monkeys, avoid carrying any food with you.

If you are bitten by a potentially rabid animal, you will need to obtain human rabies immune globulin (HRIG), within 48hrs plus receive 5 doses of rabies vaccine over a period of 1 month. Safe HRIG is virtually unavailable in many developing countries so this means you may have to fly elsewhere to get the treatment you need. HRIG is a blood product and is extremely expensive.

**The traveller can avoid the need for HRIG by receiving 3 doses of rabies vaccine before travelling. If you have the 3 pre exposure vaccines, you do not need the HRIG after a bite. However, if you are bitten after a pre exposure series you still need 2 doses of rabies vaccine, 3 days apart as a booster series. It's safe to start this 4-5 days after a bite but earlier treatment of course is better.**

All bites, scratches and licks from potentially rabid animals need washing in soap and water for 5 minutes even if pre-exposure vaccine has been given. Then cleaned with an iodine solution such as **Betadine**. Open wounds should not be sutured initially. Be wary of local advice on local rabies risk. Contact your travel insurer immediately for treatment options.

NB: At present research shows rabies booster vaccine is not required for subsequent travel, however this does not eliminate the need for post exposure vaccine.

**'One person dies worldwide every 15 minutes from Rabies**

**Mana Medical Centre Limited – updated 2016**