

# Traveller Information Sheets



## Rabies.

### *What is Rabies?*

Rabies is a viral disease that is transmitted from animals to humans through saliva or brain/nervous system tissue. You can only get rabies by coming in contact with these specific bodily excretions and tissues, this is usually via a lick, bite or scratch from an infected animal. Rabies has a case fatality rate of almost 100% in non-vaccinated persons who do not seek medical treatment following an encounter with an infected animal.

### *Where is Rabies?*

Rabies is present on all continents with the exception of Antarctica, but more than 95% of human deaths occur in Asia and Africa.

### *What animals can have Rabies?*

Dogs are the main transmitters of rabies in Asia and Africa, people are infected after a bite or scratch by an infected dog.

Bats are the main source of rabies deaths in The Americas and are emerging as a source of transmission in Australia and Western Europe.

Human deaths following an exposure to foxes, raccoons, skunks, jackals, mongooses and other wild carnivores are very rare.

Human to human transmission is possible in theory, but has never been confirmed.

Transplantation of an infected organ can result in infection of rabies however, this is rare.

Contamination with infective saliva onto mucosal membrane, though rare, is also a source of rabies transmission.

### *Can I be vaccinated against Rabies?*

Yes. There are two options for rabies vaccinations; these are 'pre-exposure vaccination' and 'post exposure vaccination'. The vaccinations used in both situations are exactly the same, however the schedule is different.

In Australia there are two registered vaccinations: Rabipur - inactivated rabies vaccination and Merieux inactivated rabies vaccination. Both vaccines are 1mL and can be used interchangeably where no other option is available, although it is preferable to provide vaccination with the same brand of vaccine.

**Dosage:** The dose of rabies vaccine for use in pre-exposure vaccination and post exposure vaccination is 1.0 mL, to be given by IM injection and is the same for infants, children and adults.

For adults, children and infants > 12 months, rabies vaccine should be given in the deltoid area. The rabies vaccine should never be given in the buttock, as failure of pre-exposure prophylaxis has been reported when given by this route.

In infants <12 months of age, administration into the anterolateral aspect of the thigh is recommended.

Merieux can also be given by SC injection; however, if Rabipur is inadvertently given via the SC route, the dose should be repeated.

### Pre exposure vaccination

Vaccination schedule is 1mL via IM injection on day 0, day 7 and day 21 or 28. Literature advises that the later date is preferable.

### Post exposure vaccination

Wound management consisting of cleaning the affected area with warm soapy water and flushing for a minimum of 15 minutes, then application of povidone iodine (betadine) to kill the rabies virus at the site, followed by attendance at a hospital or medical facility for rabies vaccination.

In previously unvaccinated persons HRIG (Human Rabies ImmunoGlobulin) should be given at a dose of 20 IU/kg body weight or if unavailable, ERIG (Equine Rabies ImmunoGlobulin) at a dosage of 40IU/kg body weight, followed by the appropriate vaccination schedule below.

In immune competent persons previously unvaccinated the schedule is 1mL via IM injection on day 0 (as soon as possible after the exposure), day 3, day 7 and day 14.

In immunocompromised persons previously unvaccinated the schedule is 1mL via IM injection on day 0 (as soon as possible after the exposure), day 3, day 7, day 14 and day 28.

In persons who have had pre exposure vaccination the schedule is 1mL via IM injection on day 0 (as soon as possible after the exposure) and day 3.

### *Can you die from Rabies?*

Yes. Rabies can be a fatal disease if treatment is not started in a timely manner. It is recommended that travellers be vaccinated against rabies. In the event that a traveller decides not to be vaccinated against rabies and is bitten by an animal while travelling it is advised that prompt medical treatment be sought. If left untreated the disease can be fatal.

### *Reference*

Centres for disease control and prevention, 2011, Atlanta GA, viewed 13<sup>th</sup> April 2014, <<http://www.cdc.gov/rabies/exposure/index.html>>

World Health Organisation, 2013, Geneva Switzerland, viewed 13<sup>th</sup> April 2014, <<http://www.who.int/mediacentre/factsheets/fs099/en/>>

World Health Organisation, 2014, Geneva Switzerland, viewed 13<sup>th</sup> April, <<http://www.who.int/ith/vaccines/rabies/en/>>

Australian Technical Advisory Group on Immunisation 2013, *The Australian Immunisation Handbook. 10th ed.* Canberra: Australian Government Department of Health, viewed 13<sup>th</sup>

April 2014, <<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/handbook10-4-16>>