

RABIES AND BAT LYSSAVIRUS INFECTION

WHAT IS LYSSAVIRUS?

Lyssaviruses are a group of viruses that include rabies and bat lyssavirus.

Rabies is an infection of mammals that are able to bite and scratch. While it occurs in many parts of the world, it does not occur in Australia. Infection with rabies can sicken and kill the affected mammal, and when people are infected they usually die.

Bat lyssavirus is a virus that is related to, but is different from rabies. In Australia, the virus is carried by bats. It rarely infects humans. Only two cases of human infection with bat lyssavirus have been recorded in Australia, both in Queensland in the mid-1990s. Both died.

WHAT ARE THE SYMPTOMS?

Rabies and bat lyssavirus are thought to cause similar symptoms. These include headache, fever, malaise, sensory changes around the site of the bite or scratch, excitability, an aversion to fresh air and water, weakness, delirium, convulsions, and coma. Death usually follows several days after the onset of symptoms.

HOW ARE THEY SPREAD?

Both rabies and bat lyssavirus are spread from infected mammals to people or other mammals through bites or scratches. Biting or scratching can inject the viruses—which are contained in the animal's saliva—into the exposed person's body.

Overseas, mammals that carry rabies include: bats, dogs, cats, raccoons, skunks, monkeys, and other mammals that can bite and scratch. Australian mammals do not carry rabies. In Australia, only bats—both the larger flying foxes (or fruit bats) and the smaller insectivorous (or micro) bats—have been found to carry bat lyssavirus.

WHO IS MOST AT RISK?

For rabies, people overseas who come into contact with wild mammals that bite and scratch—and domestic mammals that have not been vaccinated against rabies—are at increased risk of the disease. Rabies infects many local people overseas, and has infected some Australians travelling or living overseas. Areas free of rabies in the year 2000 include Australia, New Zealand, New Guinea, Japan, Hawaii, Taiwan, Oceania, parts of Europe, parts of the West Indies, and islands in the Atlantic Ocean.

In Australia, people who handle bats are at risk of bat lyssavirus infection.

HOW IS IT DIAGNOSED AND TREATED?

Diagnosis can be difficult, and confirmation requires laboratory tests for the presence of the virus in skin, blood,

spinal fluid, and nervous tissue or other tissue. There is no cure once the disease begins.

HOW IS IT PREVENTED?

Unless it is part of your job, and you have been trained in and use the proper protective equipment, do not attempt to handle wild mammals. Bat lyssavirus and rabies are only two of the many infections that animals can transmit to people.

Thoroughly washing any wounds caused by animals, and applying an antiseptic solution such as povidone-iodine will help prevent infection.

Rabies vaccine helps prevent both rabies and bat lyssavirus infection. People who handle or come into contact with bats in Australia—for example, bat carers, wildlife officers, and veterinarians; or people travelling overseas who plan to handle any unvaccinated mammal that can bite and scratch—should receive a course of vaccine from their local doctor. There will be a charge for the vaccine.

Even if you have not been vaccinated beforehand, a post-exposure course of rabies vaccine, along with another injection called rabies immunoglobulin, can prevent infection if given soon after the bite or scratch.

If you are bitten or scratched by a bat in Australia, or by a wild mammal (or any unvaccinated animal) overseas:

- thoroughly wash the wound immediately with soap and water;
- apply an antiseptic solution;
- see a doctor as soon as possible to care for the wound, and to assess whether you might be at risk of infection;

If you are at risk of infection, then you will need to have a course of rabies vaccine and rabies immunoglobulin. In NSW, post-exposure vaccine is provided free to doctors through public health units.

After a bite or scratch from an infected mammal you will still need to be revaccinated, even if you have been vaccinated beforehand. However, you will only need booster shots of the vaccine.

If you find an injured or distressed bat, do not attempt to handle it yourself, but call your local wildlife rescue service.

For further information please contact your local public health unit, community health centre, or doctor.

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