

RABIES

Patient Information Fact Sheet

›What is rabies?

Rabies is a viral disease. The virus travels from the site of entry (the bite or scratch) via the nerves to the brain and spinal cord and eventually spreads to the salivary glands. In humans, once symptoms have developed it is invariably fatal (there are reports of one or two people surviving once symptoms had developed). Symptoms may start with itching or tingling at the site of the bite or scratch. These may then develop to include headache and fever progressing to paralysis, agitation, spasm of the muscles used for swallowing, delirium and convulsions.

›How do you contract rabies?

Rabies can be transmitted in a number of ways to humans. Dog bites are by far the most common source of infection—though mostly in undeveloped countries where vaccination programs are not in place. A scratch to the skin, a lick on a fresh skin break or contact of the infected saliva with intact mucous membranes may also transmit rabies. Cats, bats, foxes, skunks, raccoons, monkeys and many other animals can be infected with this virus. Animals may be infectious for five days before they develop symptoms. More unusual routes of infection have also been documented. Aerosol transmission has been reported in a bat infested cave in South America and corneal transplants taken from undiagnosed rabies sufferers have also transmitted this infection to others.

The incubation period for rabies in humans varies from 4 days to 7 years (usually between 30–90 days). The size and location of the bite or scratch, ie, proximity to the brain and the richness of the nerve supply to the area are thought to be important factors that influence the length of the incubation period. A deeply penetrating bite to the face or neck is likely to cause problems quicker than a scratch to the ankles.

›How is rabies treated and prevented?

Thoroughly cleanse all bites with soap and water and do not allow the wound to be stitched. Limited bleeding should be encouraged. Apply alcohol if possible. Once symptoms develop, death is inevitable in all cases. There is no cure. However, the disease can almost always be prevented, even after exposure, if **rabies vaccine** (Imovax, Rabavert) is administered without delay. Travelers should seek one of the modern cell culture vaccines. These can be difficult to obtain abroad. Some countries are using less effective locally produced vaccines that have to be administered into the abdomen; these are best avoided where possible. Travelers who have had a full course of pre-exposure vaccines still need to seek post exposure vaccines if they are bitten. However, they should only need two vaccines over 2 days and they will not need the **human rabies immunoglobulin (HRIG) injection** (HyperRAB S/D), which is in short supply in many countries. Those who have not had any pre-exposure vaccines or had an incomplete course of vaccine before travel should be given four post-exposure vaccines on days 0, 3, 7, and 14 plus the human rabies immunoglobulin (HRIG). Individuals who have previously been vaccinated should receive post-exposure vaccines only on days 0 and 3.

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The antibody response to the first post exposure vaccine is expected to be rapid in those who have been “primed” with any rabies vaccines before they travel (even if they have not had a full 3 dose course). As the incubation period of the disease can in rare circumstances be as short as 4 days, the vaccines should always be sought as soon as possible. However, as the incubation period can be as long as several years in exceptional circumstances, it is still worthwhile getting vaccines if you were bitten in a risk area some time ago.

Never approach or handle animals you don't know, particularly if they are acting strangely. Pre-exposure immunization against rabies is recommended for long-stay travelers/residents and those who intend to travel to rural and remote areas in areas where rabies is common. In the event of a bite, your body's responses could be quickly activated by booster doses of vaccine. A full course of pre-exposure vaccines is three doses given on Days 0, 7 and 21–28. All travelers to risk areas should know what to do if they are bitten.

›Further information

Centers for Disease Prevention and Control: www.cdc.gov/rabies

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