



RABIES

Carte: www.who.int/ith - disease distribution maps

The rabies virus causes a severe, acute inflammation of the brain. It can give rise in animals to a “raging” form, in which frenzy is prominent, but it can also lead to a paralytic form in which the affected animal appears weak, paralysed and pathetic. Stroking “tame” animals in the wild (including temple monkeys, foxes) must therefore be strongly discouraged. In developing countries the disease is usually transmitted to humans by (stray) dogs, but also by cats, monkeys and bats. Transmission by many other mammalian species is, however, also possible. Rabies is a major problem in many developing countries. Once symptoms of the disease have appeared, the outcome is fatal in all cases. There is no treatment or cure.

During your journey, you must therefore avoid stroking “tame” wild animals, stray animals and even domestic animals or household pets that you are not familiar with. Dead animals should also not be touched. This means that children must be watched with extra vigilance.

In case of a bite by a possibly infected animal during your journey, it is extremely important to wash out the wound during 15 minutes (however small or superficial) with water and soap (as the virus is very sensitive to detergents), rinse it thoroughly, then thoroughly disinfect it (with iodine/isobetadine or ethanol 60-80%). You should consult a local doctor as quickly as possible for further care and to discuss a vaccination.

The vaccination plan for an individual who has not yet been vaccinated and who has suffered a possibly infected bite (*vaccination after exposure = “post exposure” vaccination*) consists of:

1. a **specific rabies immunoglobulins (RIG), “antiserum”, in and around the wound.**
Administration of these specific immunoglobulins is of no use 8 days after the start of the vaccination.

PLUS

2. **5 (or 4) injections of rabies vaccine prepared on human cells:**
EITHER: 1 injection on day 0, 3, 7, 14 and 28
OR: 2 injections on day 0, one on day 7 and day 21, with a test for antibody build-up on day 30 (this plan is followed if RIG is not available).

The problem in developing countries is that vaccines are often of a lower quality (since they are prepared on the basis of animal brains) and the correct immunoglobulins are not available.

In the event of a suspect bite the traveller may decide to leave home at once; or to try and obtain the correct vaccine or immunoglobulins with the help of the travel insurance company or the Embassy.

Although you are urgently advised to start vaccination within 24 hours after the bite, you can still start inoculations later (vaccination and immunoglobulins) because the incubation period is usually quite long, **after consultation with the doctors of the Agency of Contagious and Transmittable Diseases WIV/IPV – rabies department (formerly Pasteur Institute), Engelandstraat 642, 1180 Brussels (02/373.31.56 or 02/373.32.61 – www.pasteur.be/nl/index.html).**

The post-exposure vaccine and specific immunoglobulins can **only be supplied by this department**. Most often one will be invited to receive the first injection and the specific immunoglobulins there; the remaining doses will be administered by the patient's doctor.

Preventive vaccination with partially protection is possible. The current **vaccine (prepared on human cells (like Vero cells))** is very safe, and no longer has the dangerous side effects of earlier vaccines (prepared on sheep or goat brains).

The **preventive vaccination scheme** comprises 3 inoculations (on 3 to 4 weeks, on day 0,7,21 or 28). The vaccine is normally given in the upper arm. A first booster vaccination is given after 1 year. In case of a complete basic vaccination scheme within travel health, further booster injections aren't necessary for tourists and expats. A further check on antibody production is advisable in individuals with diminished immunity or those taking immunosuppressant medication and can be carried out by the Direction Contagious and Transmittable Diseases WIV/IPV (starting from the 10th day after the 3rd injection, preferably after 4 to 6 weeks).

Other directives within the regulation of occupational medicine apply for persons with an elevated risk of exposure (f.ex. veterinarian).

The rabies vaccine is from now on available at the pharmacy with a prescription of any doctor (Rabipur (Novartis Pharma) & HDC Merieux rabies vaccine (Sanofi Pasteur MSD) are easily deliverable at offices through the wholesaler. When there's not enough time left to order, the rabies vaccine can often be obtained in most of the yellow fever vaccination centres (see: www.itg.be/ITG/Uploads/MedServ/EADRVACC.htm).

In view of the extremely small risk there is, however, no indication for preventive vaccination of ordinary tourists.

The following people should consider a vaccination before travelling:

- the classical risk groups, such as veterinary surgeons, hunters, foresters, cattle dealers, agricultural experts, etc., but also archaeologists and speleologists.
- Tourists undertaking a long cycle trip or who jog very often form a risk group and should always be vaccinated.
- Individuals travelling to, or intending to live for long periods in remote rural areas in developing countries high-risk areas and who cannot have access within 24 hours to a **vaccine** (prepared on human cells or Vero cells) and within 48 hours (or at the most up to 8 days, see further) to human or modern purified equine specific antirabies **immunoglobulins** (RIG), "antiserum".
- Parents of children who are going to live in a high-risk area should – depending on the local circumstances – must seriously consider having their children preventively vaccinated. Pets or domestic animals must always be vaccinated.

Preventive vaccination alone implies no complete protection, but simplifies the "post-exposure" procedure considerably. Preventive vaccination implies a long (at least 20-30 years, probably life-long) immune memory so that a very quick rise of antibodies will arise after 2 injections after exposure. In case of a suspect animal bite – every time - the short vaccination scheme with 2 injections of the vaccine on day 0 and day 3 will be sufficient. In that case the administration of antirabies immunoglobulins will no longer be necessary for people with normal immunity.