

BITING ANIMALS

Injuries to humans by biting animals are significant public health problem. Serious injury, viral and bacterial infections, psychological trauma, and even death can be complications of animal bites. The number of animal bites can be reduced if the public practices responsible pet ownership, by controlling stray animals, and by enforcement of animals control laws and ordinances.

Most animal bites wounds that come to the attention of medical and/or public health practitioners will consist of puncture wounds, scratches and abrasions. Severe attacks may produce crushing injuries to bones, especially in children. One of the most steps in preventing rabies and other infections following an animal bite is vigorously wash bite wounds with soap and water for 15 minutes. A tetanus booster is often given to previously immunized victims if more than 5 years have elapsed since the last administration. If no history of tetanus vaccination the individual is often vaccinated.

Young children are especially vulnerable to animal bites and should be properly protected. Rabies is a viral infection of the nervous system that may affect almost any warm-blooded animal. In Los Angeles County, this disease is commonly present in bats. About 10 percent of the bats tested by the health department have rabies. The last rabid skunk in Los Angeles County was detected in 1979. The last domestic animal with rabies was a cat which came from Mexico in 1987.

Man is usually exposed to rabies by direct contact (bites) with rabid wildlife or by contact with dogs or cats which have acquired the infection from rabid wildlife.

Although rabies is almost always fatal, vaccination is highly effective in preventing it. Control of rabies depends on public awareness of the signs and hazards of the disease, stringent enforcement of animal control regulations, and upon immunization of dogs and cats.

Common Questions

When a known rabid animal bites a dog or a cat what should be done?

Unvaccinated dogs and cats bitten by a known rabid animal should be destroyed immediately. If the owner is unwilling have this done, the animal should be vaccinated and placed in strict isolation for 180 days. If the dog or cat has been vaccinated within one year, it should be revaccinated immediately, quarantined for 30 days and then restrained by the owner (leashing and confinement) for an additional 60 days.

When a dog or cat bites a person what should be done?

Unvaccinated and vaccinated dogs and cats that bite a person, must be quarantined for 10 days. If the dog or cat was infective at the time of the bite, sign of rabies in the animal will usually follow rather quickly and certainly within 10 days.

When a wild animal is involved in an attack on a person what should be done?

The animal should be euthanized immediately and the head should be submitted to the lab for rabies testing.

When a person has been exposed to a rabid animal what should be done?

The person should contact their physician and explain the situation. If the physician feels that the person is at risk of contracting rabies, he/she will begin anti-rabies treatments on the person.

Who should be treated for rabies?

Person who are bitten by, or have significant exposure to the saliva or nervous tissue of a confirmed rabid animal should begin treatment as soon as possible. Persons exposed to a suspected rabid animal should begin treatment, if the animal is not available for quarantine or testing.

What is the treatment for a person exposed to a rabid animal?

The person is given rabies vaccines and rabies immunoglobulin. The rabies vaccine and anti-serum in current use have excellent safety records and when given early are highly effective. The immunoglobulin is called the Human Anti-Rabies Immunoglobulin or HRIG (dosage depends on weight) given on day 0. The rabies vaccine is given on day 0, 3, 7, 14, and 28.

Since the chances of developing the disease are much greater than the chances of adverse reaction to the vaccine, anti-rabies treatment should be administered in all cases of known or uncertain exposure.

What is the most important measure in preventing infection of an animal bite?

Immediate and thorough washing of any bite or scratch wound with soap and water. Simple local wound cleaning has been shown to markedly reduce the likelihood of rabies in animal experiments. Tetanus and antibiotic prophylaxis should be given as indicated.

Investigation of Animal Bites

All animal bites must be investigated in California. In general, data on the biting animal, the victim, the circumstances of the bite, the name of the animal's owner (if any), and the rabies vaccination status of the biting animal should be collected. The circumstances of the bite are especially important for determining if the bite was provoked. Provoked bites are considered to be of lower rabies risk, all things being equal, than an unprovoked bite.

A rapid investigation of the bite should be completed in order to identify and capture, if possible, the biting animal and to determine whether rabies post-exposure prophylaxis for the victim is needed.

Although the bites of rodents, rabbits, etc. are at extremely low risk for transmitting rabies, such bites still need to be attended to in order to prevent infections with other diseases.

Management of Animals that Bite People

A healthy dog, cat, or ferret that bites a person should be confined and observed for 10 days; it is recommended that rabies vaccine not be administered during the observation period. Such animals should be evaluated by a public health veterinarian at the first sign of illness during confinement. Any illness in the animal should be reported immediately to the local health department. (Los Angeles County Veterinary Public Health: 323-730-3723) If signs suggestive of rabies develop, the animal should be euthanized, its head removed, and the head shipped under refrigeration (not frozen) for examination of the brain by a qualified laboratory designated by the local or state health department. All biting animals which might have exposed a person to rabies should be reported immediately to the local health department. Prior vaccination of an animal may not preclude the necessity for euthanasia and testing if the period of virus shedding is unknown for that species. Management of animals other than dogs, cats, and ferrets depends on the species, the circumstances of the bite, the epidemiology of rabies in the area, and the biting animal's history, current health status, and potential for exposure to rabies.

For legal authority see [Los Angeles County law](#) and [California law](#).

Evaluation of Encounters with Rabies Suspects

When a person or domestic animal has encountered a potentially rabid animal, an evaluation is necessary to determine: 1) whether a true exposure occurred; and 2) whether the potentially rabid animal should be quarantined or tested for rabies.

Has a true exposure occurred?

Encounters with a rabid animal can lead to rabies transmission when virus from the animal's saliva, brain tissue, or spinal fluid enters open cuts or wounds in skin or mucous membranes. Therefore, not every encounter with a rabid animal is a true exposure requiring intervention. Treatment is often provided unnecessarily to people who have encountered but had no true exposure to a potentially rabid animal.

Bite exposure is considered any penetration of the skin by an animal's teeth. Local wound care should be performed immediately on anyone bitten by an animal. A health care provider should be consulted to determine whether or not other measures are necessary. Animal bites are reportable in California.

Non-bite exposures include any scratches, abrasions, or contamination of mucous membranes by an infected animal's saliva, brain tissue, or spinal fluid. Other types of contacts (such as with the blood, urine, feces, or fur of an animal) would not by themselves be considered exposures capable of transmitting rabies even if the animal were known to be rabid. The virus is not hardy; once dry, saliva containing rabies virus is considered non-infectious.

If a true exposure occurred, should the potentially rabid animal be quarantined or be tested?

Whether to a) quarantine or to b) test an animal depends on the type of animal involved. These guidelines are derived from the Advisory Committee on Immunizations Practices (ACIP) and the recommendations of National Association of State Public Health Veterinarians.

Dogs and cats: A dog (excluding dog-wolf hybrids) or cat that has bitten, scratched, or otherwise exposed a human should be confined and observed for **10 days** under local health department supervision, regardless of whether or not the animal is currently vaccinated. Any dog or cat that is sick at the time it exposed a human should be evaluated by a veterinarian immediately.

In most places in Los Angeles County, such an animal can be confined at home by its owner. *Rabies vaccination should not be administered to the animal during this period.* If the confined animal develops any illness during the 10 days, a veterinarian should evaluate it immediately.

If signs of rabies are present, the local health department should be contacted, and the animal euthanized and tested for rabies. A dog or cat that develops no signs of rabies during this observation period did not have *transmissible* rabies at the time the exposure occurred.

Note that the 10 day observation applies only to dogs or cats that have exposed a human. Quarantine periods for animals that have themselves been potentially exposed to rabies are much longer.

All other animals: All other animals that expose humans should be reported to the local health department immediately. No observation periods have been established for such animals (including wolf hybrids). If the animal is available, laboratory testing may be indicated depending upon the circumstances of the exposure (such as whether it was provoked or not) and the species involved. The risks associated with different animals varies from place to place.

Bats: A bat that bites or otherwise exposes a human should be safely captured, euthanized, and submitted to the Public Health Laboratories (PHL) for rabies testing..

Determining whether an exposure to a rabid bat occurred is often difficult. Bats are small and have small teeth, so their bites may be difficult to recognize. Exposure may have taken place when there is reasonable probability that such contact unknowingly occurred (e.g., a sleeping person awakes to find a bat in the room or an adult witnesses a bat in the room with a previously unattended child, mentally disabled or intoxicated person, or incompletely vaccinated pet). When available the bat should be tested immediately. The presence of a bat inside a building is not by itself sufficient to result in rabies transmission.

If an unvaccinated animal is bitten by a rabid animal what should be done?

When the exposed animal is unvaccinated, euthanasia is recommended. Alternatively, the owner has the option of arranging for a 6-month strict confinement. Confinement must be strict because of the special public health risks associated with these animals (i.e., those potentially incubating rabies), and the need to prevent human and other animal exposures from occurring should rabies symptoms develop.