



# Rabies Awareness

SBRP 2019

# What is it?

Rabies is a deadly viral disease of the brain that infects mammals. **In Vermont, rabies is most commonly found in wild animals such as raccoons, skunks, foxes, bats and woodchucks. Cats, dogs and livestock can also get rabies if they have not been vaccinated for rabies.** Hundreds of cases of animal rabies have been reported throughout Vermont since 1992 and will continue to be a problem for many years.

## Symptoms:

Rabies is a disease of the central nervous system.

**Rabid animals show a change in their normal behavior, but you cannot tell whether an animal has rabies simply by looking at it.**

**Animals may show unusual aggression, extreme depression or bizarre behavior.**

In humans, early rabies symptoms include fever, headache and general weakness. As the disease progresses, symptoms may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation (increase in saliva), difficulty swallowing, and hydrophobia. Death will usually occur within days of these symptoms.



# Identification and what to do:

- ▶ One of the best ways to protect yourself and your family is to avoid contact with wild animals.
- ▶ Do not feed or handle them, even if they seem friendly.

## Some things to look for in animals are:

- ▶ General sickness
  - ▶ Problems swallowing
  - ▶ Lots of drool or saliva
  - ▶ An animal that appears more tame than you would expect
  - ▶ An animal that bites at everything
  - ▶ An animal that's having trouble moving or may even be paralyzed
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- ▶ **Never pick up or touch dead animals.** The rabies virus may still be present in the saliva or nervous tissue, especially if they have only been dead for a short time. If you see a dead animal, call animal control.

## \*\* If you see an animal acting strangely:

- remove yourself and your group
- If in SB report it to Animal Control at SBPD dispatch 846.4111 – Then notify Brett at SBRP 846.4137 / 233.4834
- If outside of SB then you may also report it to the Vermont USDA Rabies Hotline at 1-800-4-RABIES (1.800.472.2437)



# Wound Care:

- ▶ Seek medical attention per the City of SB 1<sup>st</sup> report of injury and medical evaluation process.
- ▶ **Wound cleansing is especially important in rabies prevention since, in animal studies, thorough wound cleansing alone without other postexposure prophylaxis has been shown to markedly reduce the likelihood of rabies.**
- ▶ Regardless of the risk of rabies, bite wounds can cause serious injury such as nerve or tendon laceration and local and system infection. Your doctor will determine the best way to care for your wound, and will also consider how to treat the wound for the best possible cosmetic results.
- ▶ For many types of bite wounds, immediate gentle irrigation with water or a dilute water povidone-iodine solution has been shown to markedly decrease the risk of bacterial infection.
- ▶ You should receive a tetanus shot if you have not been immunized in ten years. Decisions regarding the use of antibiotics, and primary wound closure should be decided together with your doctor.



# Rabies Postexposure Vaccinations

- ▶ For people who have never been vaccinated against rabies previously, postexposure anti-rabies vaccination should always include administration of both passive antibody and vaccine.
- ▶ The combination of human rabies immune globulin (HRIG) and vaccine is recommended for both bite and non-bite exposures, regardless of the interval between exposure and initiation of treatment.
- ▶ People who have been previously vaccinated or are receiving preexposure vaccination for rabies should receive only vaccine.
- ▶ Adverse reactions to rabies vaccine and immune globulin are not common. Newer vaccines in use today cause fewer adverse reactions than previously available vaccines. Mild, local reactions to the rabies vaccine, such as pain, redness, swelling, or itching at the injection site, have been reported. Rarely, symptoms such as headache, nausea, abdominal pain, muscle aches, and dizziness have been reported. Local pain and low-grade fever may follow injection of rabies immune globulin.
- ▶ The vaccine should be given at recommended intervals for best results. Talk to your with your doctor or state or local public health officials if you will not be able to have shot at the recommended interval. Rabies prevention is a serious matter and changes should not be made in the schedule of doses.
- ▶ People cannot transmit rabies to other people unless they themselves are sick with rabies. The prophylaxis you are receiving will protect you from developing rabies, and therefore you cannot expose other people to rabies. You should continue to participate in your normal activities.



# Role of the VT Department of Health:

## RABIES TESTING

- ▶ Rabies is a viral disease of mammals most often transmitted through the bite of a rabid animal. The rabies virus infects the central nervous system, ultimately causing disease in the brain and death.
- ▶ If a person is suspected of being exposed to rabies, either through a bite or contact with saliva, testing at the Vermont Department of Health Laboratory (VDHL) will be performed on the suspected animal.
- ▶ **All specimens submitted for rabies diagnostic testing must be pre-approved by the VDH Public Health Veterinarian. Test results are usually available within 24-48 hours of receipt.**
- ▶ Because rabies is present in nervous system tissue, the required tissue for testing is brain tissue. This requires that the animal be euthanized. Specific sections of the brain are used for testing (e.g. the cerebellum and brain stem), so it is imperative the head not be damaged prior to submission.
- ▶ The test method utilized at the VDHL is the DFA (direct fluorescence antibody) test. The DFA uses a very specific fluorescently-labeled anti-rabies antibody. When labeled antibody is applied to brain tissue positive for rabies virus, the anti-rabies antibody will bind to rabies antigen. This will result in an apple green fluorescence when viewed under a fluorescence microscope. Negative brain tissue will have no green fluorescence present.



# Sources:

- ▶ World Health Organization
- ▶ Center for Disease Control
- ▶ VT Department of Health