Rabies is a deadly virus that affects the central nervous system in mammals. It is almost always transmitted through the bite of an infected animal. Wildlife account for more than 90 percent of all reported rabies cases each year in the United States. Raccoons, bats, and skunks are responsible for most of those cases, but foxes and coyotes can also spread the disease.

Vaccinating Wildlife for Rabies

Effective vaccines are available to prevent rabies in wildlife. Every year, we distribute more than 8 million oral rabies vaccine baits in a vaccination zone that includes 16 Eastern States from Maine to Alabama. This work prevents the westward and northward spread of the virus variant that causes raccoon rabies. We work with States to monitor uninfected areas near the vaccination zone. If we find a positive case, we act quickly to contain it. This may include enhanced rabies surveillance, live-trapping and hand-vaccination of raccoons and skunks, or distributing oral rabies vaccine baits where cases originated.

Oral Rabies Vaccine

There are two types of oral rabies vaccine for wildlife used in the United States: RABORAL V-RG® and ONRAB. The V-RG vaccine comes in two bait forms: a coated sachet that can be distributed by air and a heavier block bait that can be distributed by hand in urban areas. Both baits are covered in fishmeal to attract wildlife. The ONRAB vaccine is contained in a polyvinyl chloride (PVC) blister pack and coated with a sweet (sugar/marshmallow) flavor attractive to wildlife.

When a raccoon bites into a bait, the packet ruptures, allowing the vaccine to coat the animal’s mouth and throat. Animals that receive an adequate dose of the vaccine develop antibodies against rabies. As the number of vaccinated animals in a population increases, disease transmission decreases, creating an “immunity barrier” to stop the spread of rabies.
Oral rabies vaccines are distributed mostly by air, but some residential or other populated areas may be baited by hand. In rural areas, we use fixed-wing aircraft to disperse large numbers of baits. In urban and suburban areas, we use helicopters, hand baiting, and bait stations to place baits where raccoons are most likely to find them and reduce the chance that people or domestic animals will encounter them.

**Monitoring Vaccination**

After baits are distributed, we work with our cooperators to monitor vaccination levels. We set live traps in baited areas and check them daily. These traps are labeled in the event area residents discover a trapped animal and wish to contact Wildlife Services. We temporarily anesthetize captured raccoons to collect blood samples. We may also remove a small, single-rooted tooth to age animals. We give each raccoon an ear tag with a unique number so that we can identify it if it’s captured or found later. Once the anesthesia wears off, we release the raccoons back into the wild where they were captured.

We send all blood samples to cooperating laboratories where they are tested for rabies antibodies. An animal is considered vaccinated when a certain level of antibodies is detected in its blood. On average, vaccination protects against the virus for more than a year.

**If You Find a Bait**

If you find a bait, please leave it alone. Most baits are eaten within 4 days, and almost all baits are gone in 1 week. Remaining baits will dissolve in the environment, exposing the vaccine packet. Sunlight and air inactivate the vaccine.

If you see a bait on your lawn, driveway, or other area where a child or pet might find it, move it to a wooded area or other location with thicker cover. Wear gloves or use a plastic bag or paper towel to protect your hands. An intact bait will not harm you, but it’s difficult to know if the bait may be leaking vaccine while on the ground. If you come into contact with the liquid vaccine within the bait, wash the affected area thoroughly with soap and water and call the number listed on the bait or your county health department for further instructions.

If your pet finds a bait, don’t try to remove it from their mouth—you may get bitten. The vaccine can’t cause rabies and is safe if eaten by domestic dogs and cats. That said, you should not use a bait to vaccinate your dog or cat. Your pet should be vaccinated by a veterinarian in accordance with State and local laws.

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