



NEW YORK CITY DEPARTMENT OF  
HEALTH AND MENTAL HYGIENE  
Dave A. Chokshi, MD, MSc  
*Commissioner*

## 2021 Veterinary Alert # 5

### Raccoon Oral Rabies Vaccine (ORV) to Be Used in New York City to Help Control Raccoon Rabies

- **[Rabies](#)** has been circulating among raccoons in New York City since 1992. To date in 2021, 17 animals with rabies have been reported.
- The New York City Department of Health (in coordination with the United States Department of Agriculture (USDA), Cornell University and the NYC Department of Parks and Recreation) will vaccinate raccoons by distributing oral rabies vaccine (ORV) baits in parts of Staten Island, Bronx, Brooklyn, Queens and Manhattan.
  - A low-flying helicopter will be used to distribute ORV baits in Staten Island and the Gateway National Recreation Area in Brooklyn and Queens.
  - Bait stations and hand distribution will be used in Brooklyn, Bronx, Queens, and Manhattan from September through October.
- The ORV baits contain live attenuated vaccinia virus. The baits are not harmful to dogs or cats, but a pet may vomit after eating a large number of them.
- Exposures to humans, although unlikely, could potentially occur through direct or indirect contact with the vaccine, or through accidental consumption of the ORV bait.

September 16, 2021

Dear Colleagues,

The raccoon variant of the [rabies virus](#) has been present in New York City (NYC) since 1992. This variant is most efficiently transmitted among raccoons with occasional spillover to other animals. To date this year, 17 animals in NYC have been found to have rabies: 8 raccoons and 2 cats from Staten Island, 2 raccoons, 1 skunk, and 1 cat from the Bronx, 1 raccoon from Manhattan, and 2 raccoons from Queens. Oral rabies vaccination (ORV) has routinely been used as a strategy to control rabies among raccoons. The NYC Department of Health (in coordination with the United States Department of Agriculture (USDA), Cornell University and the NYC Department of Parks and Recreation) began an ORV program to vaccinate raccoons in NYC in 2014. The ORV program has occurred every year in Brooklyn, Queens, and Staten Island, except for 2019. Manhattan was added in 2020 and this year the program will expand again to include the Bronx.

ORV will be done using the Raboral V-RG™ bait, which contains a liquid vaccinia-rabies glycoprotein (V-RG) recombinant virus vaccine. A low-flying helicopter will be used to distribute the vaccine over several parks, wooded areas and less-populated sections of Staten Island and the Gateway National Recreation Area in Brooklyn and Queens. The bait will be distributed by hand-tossing and using fixed bait stations strategically placed by federal workers in several parks and wooded sections of Brooklyn, Queens, and Manhattan. The baiting will take place between September 20<sup>th</sup> and October 9<sup>th</sup>.

The baits are not harmful to people, pets, or wildlife. Raccoons are attracted by the brown fish-scented bait, which conceals a small packet of pink liquid vaccine about one square inch in size (6 grams) and consists of fishmeal, fish oil, and wax. The pink, liquid vaccine is contained in a small sachet that is encompassed by the fishmeal attractant. Each labeled bait contains approximately 2 mls of rabies vaccine.

The baits are not harmful to dogs or cats, but a pet may vomit after eating a large number of them. If a pet chews a bait, advise the owner not to try to take it away from the animal since they may be bitten in the process.

It is not harmful for persons to touch an intact bait. However, because of the offensive odor, gloves are recommended. Wash hands thoroughly after any direct contact with the bait. There is a risk, although very low, of human infection with the vaccinia virus after contact with the pink liquid vaccine (you cannot contract rabies from the vaccine). Persons who handle damaged bait should wear gloves or use a plastic bag. Damaged bait can be bagged and disposed of in regular trash. Persons who have direct skin contact, particularly with the pink liquid vaccine inside the bait, should wash the area with soap and water and call the Poison Control Center at 212-764-7667 (212-POISONS).

Despite the millions of ORV doses distributed across the United States, there have only been two documented cases of human infection with vaccinia virus due to exposure to ORV, both of whom were exposed when bitten while trying to remove bait from a dog's mouth<sup>1,2</sup>. Exposure may cause skin lesions similar to those caused by smallpox vaccination and may similarly be spread person to person through contact with such lesions. Persons at risk are those who have atopic dermatitis or other active exfoliative skin conditions and those with immune deficiencies or immunosuppressive conditions.

Veterinarians in New York City should be on the alert over the coming weeks and may receive questions from pet owners regarding ORV in Brooklyn, Queens, Manhattan, or Staten Island. If a client reports a human exposure to ORV bait, especially the liquid vaccine, advise them to contact the NYC Poison Control Center at 212-764-7667 (212-POISONS).

#### **VETERINARIANS MAY ADVISE PATIENTS AS FOLLOWS:**

- It is not possible to get rabies from the vaccine. The vaccine does not contain the rabies virus. It does contain attenuated vaccinia virus.
- If residents find bait near their homes, but not in the open, they should leave it alone. The bait packets have a strong fishmeal smell that is not attractive to people or to most other animals. (There is a label that clearly identifies the bait packet: "Rabies Vaccine Live Vaccinia Vector. Do Not Disturb" and a toll-free number, 1-877-722-6725, which will route their call to Poison Control.)
- If the bait is intact and out in the open where pets or children are more likely to encounter it, toss it into deeper cover under trees or bushes while wearing gloves or using a plastic bag.
- Direct contact with ORV bait should be avoided. Any person who needs to handle ORV bait should be instructed to wear gloves or use a plastic bag. Damaged bait can be bagged and disposed of in regular trash.
- The bait is not harmful to dogs or cats, but a pet may vomit if they eat a large number of them. **Do not try to remove a packet from an animal's mouth.**
- It is not harmful for persons to touch an intact bait. However, call the Poison Control Center at 212-764-7667 (212-POISONS) in the unlikely event that a person has direct skin exposure to the pink liquid vaccine. Instruct the exposed person to wash hands immediately with soap and water and/or an alcohol-based hand sanitizer.
- Residents who see raccoons should NOT try to trap the raccoons themselves. Call a licensed trapper.

For information regarding rabies and baiting, visit the NYC and NYS Health Department websites:

New York City Health Department: [nyc.gov/health/rabies](http://nyc.gov/health/rabies)

New York State DOH: <http://www.health.ny.gov/diseases/communicable/zoonoses/rabies/wildlife.htm>

To view prior Veterinary Alerts, visit <https://www1.nyc.gov/site/doh/providers/resources/zoonotic-vectorborne-publications.page>

As always, we appreciate your continued collaboration with our efforts to monitor public health in New York City.

Sincerely,

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<sup>1</sup> Human infection due to recombinant vaccinia-rabies glycoprotein virus. N Engl J Med. 2001 Aug 23;345(8):582-6.

<sup>2</sup> Human vaccinia infection after contact with a raccoon rabies vaccine bait—Pennsylvania, 2009. MMWR 2009;58:1204–7.