



# Rabies: Serology Testing, Reporting Human Exposures and Post- Exposure Prophylaxis

Rabies is an infectious viral disease that affects the central nervous system of humans and warm-blooded animals and although rare in Canada, once symptoms appear, rabies is nearly always fatal. Approximately 1400 animal to human exposures were reported yearly between 2017 and 2022 in Durham Region and post-exposure prophylaxis (PEP) was provided in 12% of these investigations.

Public Health Ontario has provided information regarding rabies serology testing for previously vaccinated individuals. Please see details outlined below and the process to follow for lab submissions.

## Rabies Serology Testing if previously vaccinated

For priority testing of time-sensitive specimens for determining the need for Rabies Immune Globulin (Rablg) administration and/or determining the number of doses of Rabies Vaccine to be used for post-exposure prophylaxis **in previously vaccinated individuals**, follow the steps below:

- Prior to submitting a serum specimen for testing, notify PHO's laboratory Customer Service Centre of the incoming priority request at 416-235-6556/1-877-604-4567.
- Ship priority specimens separately from routine specimens in accordance with the Transportation of Dangerous Goods Regulations.
- Clearly mark packaging with "**Priority for WRA-Immuno Laboratory**" for easy identification and retrieval upon arrival at PHO's laboratory.
- Ship priority specimens directly to PHO's laboratory Toronto site at 661 University Ave., Toronto, Ontario M5G 1M1. For delivery instructions please see [Directions to 661 University Shipping Dock for Clinical Samples](#).
- Failure to follow the submission instructions above may result in testing delays.

Additional information regarding Rabies serology testing can be found on PHO's [Rabies Serology - test information webpage](#). You can also call PHO's Customer Service Centre at 1-877-604-4567 (toll free) or 416-235-6556, or email [CustomerServiceCentre@oahpp.ca](mailto:CustomerServiceCentre@oahpp.ca).

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# Requirement to Report Animal Bites

Health care providers are required to notify their local public health unit of any person who has had a suspected rabies exposure, pursuant to [Ontario Regulation 557](#) of the *Health Protection and Promotion Act*. This notification should occur as soon as possible.

To report an animal bite call the Durham Health Connection Line (DHCL) at 905-668-2020 or 1-800-841-2729 or after hours, weekends and holidays 905-576-9991 or, by completing the online form found at - [www.durham.ca/en/health-and-wellness/resources--for-health-care-providers.aspx#Reporting](http://www.durham.ca/en/health-and-wellness/resources--for-health-care-providers.aspx#Reporting) (or at [www.durham.ca/hcp](http://www.durham.ca/hcp) under Forms, Reporting).

## Rabies Risk Assessment

**Rabies reservoir species include raccoons, skunks, bats, foxes, and coyotes. Domestic animals such as cats, dogs and cattle can also get rabies if exposed to an infected animal.** Rabies virus is spread from an infected animal to another, or from an infected animal to a human, through close contact with infected saliva (i.e., bites, contact with an open cut, sore, or wound, contact with mucous membranes such as mouth, nasal cavity, eyes, and careless handling of a dead rabid animal).

Squirrels, hamsters, guinea-pigs, gerbils, chipmunks, rats, mice or other small rodents, as well as lagomorphs (such as rabbits and hares) are only **rarely found to be infected with rabies** because it is believed that they are likely to be killed by the larger animal that could have potentially transmitted rabies to them. **PEP should be considered only if the animal's behaviour was highly unusual.** For example, a bite from a squirrel while feeding it would not be considered unusual behaviour and so does not warrant PEP based on this information alone.

If you need additional assistance with risk assessment questions please contact a public health inspector at 905-668-2020 or 1-800-841-2729 or after hours, weekends and holidays 905-576-9991.

## Rabies Post-Exposure Prophylaxis (PEP)

PEP of previously **unimmunized persons** consists of administration of both **Rabies Immune Globulin (Rablg)** and **Rabies Vaccine**.

- The Rablg recommended dose is based upon the **body weight** of the person and the **entire dose** should be administered on the **first day** of initiation of therapy, **day 0**. If possible, the full dose of Rablg should be thoroughly infiltrated into the **wound(s)** and **surrounding area(s)**.
- The Rabies Vaccine should be administered IM at a **different anatomical site** from where the Rablg was administered on **day 0**, and a **separate syringe** should be used. In general, the Rabies Vaccine is administered into the **deltoid muscle** in older children and adults but never in the gluteal region. The Rabies Vaccine for an immunocompetent person consists of four 1.0 mL doses of HDCV or PCECV, and should be administered on **days 0, 3, 7 and 14**.

Please refer to [Management of Potential Rabies Exposures Guideline, 2020](#) for information on infants, schedule & dosing for immunocompromised persons and previously immunized individuals.

**To order rabies PEP** call 905-668-2020 or 1-800-841-2729 **ext. 4699** or after hours, weekends and holidays 905-576-9991.

Additional resources are available at [www.durham.ca/hcp](http://www.durham.ca/hcp)

July 14, 2023

905-668-2020 or 1-800-841-2729 | [durham.ca/health](http://durham.ca/health)

If you require this information in an accessible format, contact 1-800-841-2729.

