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Health Alert Network | Health Advisory | September 11, 2026

Nationwide Increase in Reported Human Rabies Exposures: Rabies Post-exposure Prophylaxis Administration

The North Dakota Department of Health and Human Services (ND HHS) is providing this Health Advisory from the Centers for Disease Control and Prevention (CDC) in response to recent reports of increases in human exposures to rabid or possibly rabid animals. ND HHS has also received an increase in reports of human exposures to rabid or potentially rabid animals, particularly bats and wildlife kept as pets.

ND HHS is highlighting the importance of performing careful rabies risk assessments and encouraging clinicians to follow evidence-based recommendations for administering post-exposure prophylaxis (PEP).

Providers can consult ND HHS at 800-472-2180 or 701-328-2378 on individual exposure situations or questions about PEP administration. See the ND HHS Rabies Exposure Assessment Algorithm for more information. Notify ND HHS immediately if an individual is exposed to a wild mammal with suspected rabies infection.

ND HHS Laboratory Services offers rabies Direct Antigen Detection for animals that have exposed a human. With the exception of bats, the animal's brain should be removed prior to submission. Rabies testing should be ordered through the online lab web portal.

Please contact ND HHS Laboratory Services with any questions about rabies testing at 701-328-6272.

The North Dakota State University Veterinary Diagnostic Laboratory (NDSU-VDL) performs animal rabies testing on all mammals. Contact the NDSU-VDL at 701-231-7527 or 701-231-8307 for rabies submission information.

Summary:

The CDC is issuing this Health Alert Network (HAN) Health Advisory in response to recent reports of increases in human exposures to rabid or possibly rabid animals and rabies post-exposure prophylaxis (PEP) administration errors. Since July 2026, multiple United States jurisdictions have reported local increases in human rabies exposures involving known rabies vectors or animals in which rabies is less commonly reported. Several high-profile rabies outbreaks and mass rabies exposure events have highlighted the importance of performing careful rabies risk assessments and following evidence-based recommendations for administering PEP. Health departments can help clinicians who provide rabies vaccination in their jurisdictions stay aware of the importance of rabies risk assessments before administering PEP. Clinicians and healthcare facilities can work to make sure that PEP is administered only when appropriate and that human rabies immune globulin (HRIG) and rabies vaccines are administered according to Advisory Committee on Immunization Practices (ACIP) recommendations.

Background:

Rabies is a zoonotic viral disease that is nearly 100% fatal, but it is preventable when PEP is given appropriately before patient symptoms start. An infected animal can spread rabies to humans and other animals through bites, scratches, or oral secretions. Rabies primarily affects the central nervous system, leading to encephalitis and death if medical care is not received soon after exposure and before symptoms start. ACIP post-exposure prophylaxis to prevent human rabies recommendations outline rabies exposure assessment, wound care, vaccination, and immunoglobulin dosing. Following a potential rabies exposure, it is important for a health official familiar with animal rabies epidemiology to help assess exposure risk and determine if a patient might need PEP. Two rabies vaccines, Imovax® (HDCV) and RabAvert® (PCECV), and two HRIG products, KEDRAB™ and HyperRab™, are licensed for use in people in the United States.

From July through August 2026, CDC received 17% more rabies-related inquiries than during the same period in 2025, including reports of mass exposure events (e.g., involving more than one person). During this time frame, CDC also received reports from at least eight state health departments of increased rabies PEP use, PEP administration errors, or both. Each year, an estimated 1.4 million people in the United

States seek medical care after animal contact and undergo evaluation, and approximately 100,000 people receive rabies PEP following a potential exposure. According to weekly pharmacy data as of September 2, 2026, utilization for the two rabies vaccines and the two rabies immunoglobulins licensed in the United States has increased by an estimated 33% and 76%, respectively, compared with the same time period last year.

Although there is currently no shortage of human rabies vaccine or human rabies immunoglobulin in the United States, it is important for clinicians to administer PEP appropriately because errors in rabies risk assessment and PEP administration could result in unnecessary treatment (e.g., additional doses of vaccine or HRIG), potential adverse effects, and avoidable costs. A typical course of PEP can cost between $11,000 and $14,000 per person. Following rabies PEP administration guidance helps ensure that lifesaving vaccines are available for persons who need it and extraneous costs are avoided.

Correct rabies PEP administration depends on the patient's previous rabies vaccination status. For persons who have never been vaccinated against rabies, PEP should always include HRIG and vaccine. HRIG is administered once when PEP is initiated; if initially omitted, HRIG may be administered through the date of a patient's third vaccination dose (day 7). HRIG is infiltrated into and around all identifiable wounds to the extent anatomically feasible, and any remaining volume is administered intramuscularly at a site distant from the first vaccine dose. Rabies vaccine is administered intramuscularly in the deltoid area (for adults) or in the deltoid or anterolateral thigh (for children) on days 0, 3, 7, and 14. Persons who were previously vaccinated against rabies should receive vaccine on days 0 and 3 and should not receive HRIG. Rabies vaccine is not administered in the gluteal area. HRIG and the first vaccine dose are never administered in the same syringe or anatomical site. Other recommendations apply to persons with altered immunity.

Commonly reported errors in rabies PEP administration include:

- Administering rabies vaccine in the gluteal area.
- Failing to infiltrate HRIG into and around all identifiable wounds to the extent anatomically feasible.
- Administering HRIG and vaccine in the same syringe or anatomical site.

- Forgetting to give HRIG to someone who needs it.
- Administering HRIG to a person who was previously vaccinated against rabies.
- Misclassifying previous vaccination history or immune status, resulting in omitted or unnecessary biologics doses.
- Using an incorrect rabies vaccine schedule.
- Unnecessarily restarting the rabies vaccine series after a schedule deviation.

Recommendations for Clinicians:

- **To encourage appropriate rabies PEP assessment and administration:**
  - Contact your state, local, tribal, or territorial health department for information on rabies epidemiology in your area or to consult on individual situations.
  - Be familiar with the complete CDC rabies post-exposure prophylaxis guidance.
  - Learn common errors when administering rabies PEP and what to do to correct them.
  - Ask patients about immunocompromising conditions, immunosuppressive medications, and prior rabies vaccination both in the United States and outside the country.
  - Consult your hospital pharmacist if you have questions about rabies PEP administration for an individual patient.
- **Provide immediate wound care:**
  - Immediately and thoroughly wash each wound with water and soap (or water alone). If available, irrigate wounds with a virucidal agent such as povidone-iodine solution.
  - Do not close the wound until after HRIG has been administered.
- **Confirm that a rabies exposure occurred and that PEP is indicated:**
  - Promptly conduct a rabies risk assessment that considers the risk of rabies in the animal, the circumstances that led to the exposure, if the animal had any clinical signs consistent with rabies, and the type and severity of the wound.
    - Public health officials can help conduct the risk assessment if needed.

        - To help guide risk assessments, a CDC tool is available to help evaluate the risk of rabies in animals that are unable to undergo testing or observation periods.
    - Verify prior rabies vaccination history to determine if the patient previously completed pre- or post-exposure prophylaxis.
    - Check with your jurisdictional public health authorities to determine if suspect rabies exposures are reportable.
    - In general, PEP is not recommended when the animal is available for a 10-day post-exposure observation, rabies test results are negative, or health officials determine the exposure does not pose a rabies risk.
- **Administer HRIG only if the patient has not previously received rabies vaccine:**
    - A person is considered vaccinated for rabies if they have received either a full pre-exposure or post-exposure prophylaxis series OR a partial series followed by documentation of a serologic titer ≥0.5 IU/mL using the Rapid Fluorescent Focus Inhibition Test (RFFIT) assay.
    - When administering HRIG:
        - Calculate the dose in international units at 20 IU/kg based on the patient's body weight first, and then convert the dose to milliliters using the concentration of the product on hand. Products made in the United States are available in different concentrations; verify the label before preparation and administration.
        - Infiltrate HRIG into and around every identifiable wound to the extent that is anatomically feasible. Administer only the remaining volume in a different anatomic site from the first vaccine dose. If there is no identifiable wound, administer the entire HRIG dose intramuscularly at a site far from vaccine at a different anatomical site.
        - If HRIG was inadvertently administered in another anatomic site,additional HRIG may be administered to infiltrate the wound, as long as the total dose of HRIG administered to the patient doesn't exceed 40 IU/kg.
    - Do not delay vaccination if HRIG is unavailable. HRIG can be administered until the patient’s third vaccine dose (day 7). HRIG administration is not recommended after three or more doses of vaccine have been given.

    - Do not administer more than 40 IU/kg of HRIG, as higher doses might reduce vaccine-induced immunity. When the volume of HRIG is insufficient to cover all wounds, dilute with an appropriate diluent rather than increasing the total HRIG dose.
    - Do not mix HRIG and vaccine in the same syringe or administer them in the same anatomical site. These products could neutralize each other, potentially making both ineffective.
    - Do not give HRIG to a person who previously has completed PEP or a recognized pre-exposure prophylaxis course.
- **Administer rabies vaccine.**
    - For persons who were previously vaccinated against rabies, administer two doses of rabies vaccine on days 0 and 3.
    - For persons who were never vaccinated against rabies, administer four doses of rabies vaccine at the time of the first medical visit (day 0), followed by an additional dose on days 3, 7, and 14 after the first dose, according to ACIP recommendations.
        - Administer 1.0 mL of vaccine intramuscularly. Use the deltoid for adults and children older than 2 years; the anterolateral thigh is acceptable for children 2 years of age and younger.
        - Do not administer rabies vaccine in the gluteal area. A dose given in the gluteal area is not considered valid and must be repeated at an appropriate site.
- **Determine if PEP is appropriate for people with compromised immune systems.**
    - If there is clinical suspicion that a patient's medical history might negatively impact their ability to respond to vaccination (i.e., for patients who are immunocompromised), complete a five-dose vaccine series (days 0, 3, 7, 14, and 28) and confirm adequate vaccine response using serologic evidence via laboratory testing. Your health department can help coordinate expedited requests with the testing laboratory.
    - CDC's National Rabies Reference Laboratory can conduct serologic testing for U.S. patients who are immunocompromised or have evidence of failure to mount an adequate vaccine response. Contact your health department to request serologic testing and discuss timing.

    - CDC has recorded vaccination response failures among immunocompromised people who were exposed to rabies after completing a PEP series. These patients require additional consideration and immediate consultation with public health officials.
- **How to handle deviations in rabies post-exposure prophylaxis schedule.**
    - In general, deviations from the recommended vaccine schedule of up to several days are not of concern, but longer deviations require public health consultation.
    - Use CDC's rabies PEP calculator to generate and evaluate rabies PEP schedules and to know when to consult a public health professional.

Recommendations for Health Departments:

- Provide timely consultation for rabies exposure risk assessments and PEP administration questions in your area.
- Assist clinicians in evaluating rabies PEP administration errors before corrective biologics are given. Use CDC's rabies biologics guidance and CDC's rabies PEP calculator.
- Monitor vaccine supplies and ensure processes are in place to procure from suppliers if allocation limits are implemented.
- In emergency situations, contact CDC's rabies team at rabies@cdc.gov or via CDC's Emergency Operations Center at 770-488-7100. Healthcare providers should contact their health department first if they might need assistance from CDC, including clinical consultations.

Recommendations for the Public:

- Keep your distance from wildlife. Never approach animals who appear to be injured, sick, or dead, especially if you see animals during the day who are usually active at night (e.g., bats, raccoons, etc.). Contact your area's animal control service for assistance when needed.
- If you have pets, keep them up to date on rabies vaccines and away from wildlife when possible.
- If you or your pets have been in contact with any wildlife or sick-acting animals, particularly if you've been bitten or scratched, do the following:
    - Wash any wounds immediately with water and soap (or water alone) for 15 minutes.

- Talk with a clinician or public health professional about your risk and if you might need rabies-related care.
- Tell your doctor about the type of animal you encountered and if you noted any signs that the animal was not acting normally.
- If the animal that bit you was not your pet, ask the owner for proof that the animal is up to date on their rabies vaccination.
- If you can do so safely, capture or confine the animal and contact your area's animal control service or your health department for assistance.
- In some circumstances and in consultation with a veterinarian, observing an available animal might be a reasonable alternative to rabies testing.

For More Information:

For Clinicians

- Clinical Overview of Rabies | Rabies | CDC
- Clinical Screening for Rabies PEP | Rabies | CDC
- Rabies Post-exposure Prophylaxis Guidance | Rabies | CDC
- Rabies Biologics | Rabies | CDC
- Rabies PEP Calculator | Rabies | CDC
- Rabies PEP training modules
- Rabies PEP administration training videos
- Rabies is Still Here: Epidemiology, Outbreaks, and Costs of Prevention in the United States | COCA Call | CDC

For Health Departments

- Rabies in the United States: Protecting Public Health | Rabies | CDC
- Laboratory Methods for Rabies Testing | Rabies | CDC

For the Public

- About Rabies | Rabies | CDC
- Rabies Prevention and Control | Rabies | CDC

References:

1) Wallace RM, Boutelle C, Blanton JD. Epidemiology. In: Rabies: Scientific Basis of the Disease and Its Management. 5th edition. Academic Press; 2025:97–150.

2) Minhaj FS, Bonaparte SC, Boutelle C, et al. Analysis of available animal testing data to propose peer-derived quantitative thresholds for determining adequate surveillance capacity for rabies. *Sci Rep*. 2023;13(1):3986. DOI:10.1038/s41598-023-30984-3

3) Keshavamurthy R., Boutelle C., Bonaparte S., et al. Rabies surveillance in the United States during 2024. *J Am Vet Med Assoc*. 2026; Aug 31:1-8, online ahead of print. DOI: 10.2460/javma.26.07.0545

4) Charniga K, Nakazawa Y, Brown J, et al. Risk of Rabies and Implications for Postexposure Prophylaxis Administration in the US. *JAMA Netw Open*. 2023;6(6):e2317121. DOI: 10.1001/jamanetworkopen.2023.17121