Offending Animal	Situation	Location of bite (or non-bite) exposure	Rabies post-exposure prophylaxis (PEP) recommendations
Bats, Skunks, Racoons, Foxes, and other Wild Animals	Wild animal available for euthanasia and testing[1]	Anywhere on body	Consult with DOH. PEP may be able to be deferred until rabies test results are known[2]
	Wild animal unavailable	Anywhere on body	Administer PEP regimen[4]
Dogs, Cats, Ferrets, Horses, and other Livestock (ie. cow, sheep, goat, pig, llama)	Animal available to be confined and observed for 10 days[3], or tested for rabies[1]	Extremities	Defer administration of PEP until outcome of 10-day observation period[3], or rabies testing, is known
		Face or head	Consult with DOH[2]
	Animal unavailable	Anywhere on body	Administer PEP regimen[4]
Small rodent or rabbit[5]	No need to capture and test animal unless there are unusual circumstances[6]	Anywhere on body	No need for human rabies prophylaxis unless unusual circumstances, after consulting with DOH

1. **Routine rabies testing:** via a veterinarian, submit to SDSU ADRDL (see back page for specimen submission information). Generally, samples must be received by 11:00 AM on a business day to be considered for same day testing. When rabies testing is indicated, all efforts should be made for up to 3 days to capture and submit the offending animal for rabies testing when there has been a possible exposure, because most will test negative for rabies and will eliminate the need for rabies PEP. Ensure the animal identified is truly the animal responsible for the human exposure when making decisions about the need for rabies PEP.
2. **Expedited after hours rabies testing:** In scenarios involving a wild or rabid-acting animal and bites to the face, head, or neck, contact SD-DOH to discuss the need for an expedited test.
3. **Animal observation for 10 days:** The animal is confined and observed by the owner/vet/local animal control for 10 days to watch for signs of rabies. All efforts should be made for up to 3 days to capture the animal and place it under a 10-day observation period. If the animal is observed to be rabies symptom-free throughout the 10-day observation period, it did not have rabies virus in its saliva at the time of exposure, and no PEP is needed. Due to the presence of rabies in SD, PEP is commonly considered when the animal is not tested and is not available for a 10-day observation period. Additional factors may need to be considered, including animal behavior, species-specific incidence of rabies in SD, circumstances of the exposure, sightings of the healthy but uncaptured animal during the 10-day period, etc. If an animal dies, displays abnormal behavior, or becomes ill during the 10-day observation period, immediately contact a veterinarian to arrange for the sick/dead animal to be evaluated and potentially submitted for rabies testing. If the animal is found to remain healthy through the 10-day observation period and PEP has already begun, PEP can be discontinued.
4. **Rabies post-exposure prophylaxis (PEP):** See reverse page for details. Rabies PEP should not be started when animal capture, observation, euthanasia, specimen shipment, or rabies testing is in process unless it is a high-risk face, head, or neck wound or severe attack and the animal has a high probability of being rabid (high risk species or rabid-acting animal).
5. **Small rodents** (mice, rats, guinea pigs, hamsters, gerbils, squirrels, chipmunks, gophers, voles), moles, shrews, hares, and rabbits are rarely found to be rabid and have not been known to transmit rabies to humans. These animals should not be submitted for rabies testing nor exposed persons provided PEP, unless there are unusual circumstances and there is consultation with SD-DOH.
6. **Unusual circumstances:** May include behavior considered to be bizarre or highly unusual for that species or individual animal, or an unusual incident involving human exposure. Please consult SD-DOH for these circumstances.

SOUTH DAKOTA DEPARTMENT OF HEALTH

Human Rabies Prevention Guidelines

Consultation services available 24/7:
South Dakota Dept. of Health
605.773.3737
1.800.592.1861

Definition of Exposure

Exposure: Rabies is transmitted by introduction of the virus into open cuts or wounds or by contact with mucous membranes. There are two main types:

- **Bite** (*higher risk*)**:** Any penetration of skin by an animal's teeth. Bites to the face, head, or neck carry a more urgent risk.
- **Non-bite** (*lower risk*)**:** Includes scratches or abrasions received from an animal, and also the contamination of open cuts, wounds, or mucous membranes with an animal's saliva or neural tissue.

Non-exposure: Other contact by itself, such as petting or handling an animal, or coming into contact with blood, urine, or feces of an animal, does not constitute exposure and does not require rabies PEP.

Bats: Bites or scratches from a bat constitute exposure and warrant rabies testing and/or rabies PEP. In addition, because people have developed rabies after inapparent bat exposures, PEP may be appropriate even in the absence of a demonstrable bite, scratch, or mucous membrane exposure.

For questions about rabies in animals or to report suspect or exposed animals, consult the South Dakota Animal Industry Board at 605.773.3321.

Examples in which exposure to a bat may be a reasonable probability:

- Bat is found in the same room with someone who might be unaware an exposure has occurred. For example, a sleeping person, unattended child, or a mentally-impaired or intoxicated person
- Child touches a bat
- Bat flies into someone, touching bare skin
- Someone with bare feet steps on a bat
- Person puts hand in firewood or brush, feels pain, then sees a bat

Examples in which exposure to a bat is unlikely:

- Bats are heard or seen in walls or attic of a house
- Old bat guano is found in sleeping quarters
- Person has contact with a completely dried-up bat carcass
- Teenager or adult touches a bat, but is certain they weren't bitten or scratched
- Bat swoops by a teenager or adult who does not feel it touch them

Rabies Consultations

- Rabies consultations for potential human rabies exposures are available 7 days a week by the South Dakota Department of Health (SD-DOH). Consultations are based on Centers for Disease Control and Prevention (CDC) recommendations (see https://www.cdc.gov/rabies/hcp/prevention-recommendations/post-exposure-prophylaxis.html). We strive to recommend appropriate rabies prevention measures and to minimize unnecessary and inappropriate testing and post-exposure prophylactic treatment.
- Information that should be provided during consultation includes:
    - Name and contact information of the veterinarian and/or animal control officer
    - Name and contact information of the animal owner
    - Name and contact information of the exposed person
    - Animal type, rabies signs/symptoms, and rabies vaccination history (if known).
    - Date of exposure
    - Circumstances around the exposure
    - SD-DOH will follow up with owner/exposed persons as needed (see algorithm on page 1)

Laboratory Testing Information

- The animal in question should be humanely euthanized such as to not destroy the brain/brainstem. Please contact a veterinarian.
- The preferred submitted specimen includes head/whole body, kept chilled with frozen gel packs, submitted in a leakproof container. Frozen specimens are discouraged because of testing delays and an increased likelihood of an insufficient test.
- Submit specimens to the **Animal Disease Research and Diagnostic Laboratory (ADRDL)** at South Dakota State University:
  Animal Disease Research and Diagnostic Laboratory
  South Dakota State University
  1155 North Campus Drive
  Brookings, SD 57007
- ADRDL offers animal rabies testing (rabies DFA test) each business day; generally, samples must be received by 11:00 AM to be considered for same day testing.
- For ADRDL shipping protocols, questions about hours of operations, test times, results, etc., please call 605.688.5171 or see https://www.sdstate.edu/animal-disease-research-diagnostic-laboratory/specimen-submission-guidelines
- Each submission requires a submission form, with the contact information for a veterinarian or healthcare provider, found at https://www.sdstate.edu/sites/default/files/file-archive/2023-09/Rabies-Diagnostic-Requisition-Form.pdf

Cost of testing

Human Exposure to:

- Domestic Animals: SD-DOH will pay the cost of the rabies DFA test
- Wild Animals: South Dakota Game, Fish, and Parks will pay the cost of the rabies DFA test

Animal-only or No Exposure:

- Testing cost will be billed to the submitter

For the current cost of rabies laboratory testing, please see: https://www.sdstate.edu/animal-disease-research-diagnostic-laboratory/adrdl-user-guide
If rabies testing is negative, additional diagnostic testing may be available from ADRDL at submitter's expense

What if a patient doesn't adhere to the schedule for rabies post-exposure prophylaxis?

- Every attempt should be made to give the vaccinations according to the recommended rabies post-exposure vaccination schedule
- If rabies post-exposure prophylaxis was started but a dose was delayed/missed, the schedule should resume with the missed dose and proceed maintaining the same intervals as in the recommended vaccination schedule
    - For example, if a patient misses the dose scheduled for day 3 and presents for the vaccination on day 5, the dose from day 3 should be given on day 5 and the remainder of the doses should be given maintaining the same interval as in the recommended vaccination schedule
- When substantial deviations from the recommended schedule occur, immune status should be assessed by performing serologic testing 7-14 days after administration of the final dose in the series
- Contact SD-DOH at 605-773-3737 for additional consultation

Rabies postexposure prophylaxis (PEP) schedule --- United States, 2010

https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5902a1.htm

Vaccination status	Intervention	Regimen*
Not previously vaccinated	Wound cleansing	All PEP should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent (e.g., povidine-iodine solution) should be used to irrigate the wounds.
	Human rabies immune globulin (HRIG)	Administer 20 IU/kg body weight. If anatomically feasible, the full dose should be infiltrated around and into the wound(s), and any remaining volume should be administered at an anatomical site (intramuscular [IM]) distant from vaccine administration. Also, HRIG should not be administered in the same syringe as vaccine. Because RIG might partially suppress active production of rabies virus antibody, no more than the recommended dose should be administered.
	Vaccine	Human diploid cell vaccine (HDCV) or purified chick embryo cell vaccine (PCECV) 1.0 mL, IM (deltoid area†), 1 each on days 0,§ 3, 7 and 14.¶
Previously vaccinated**	Wound cleansing	All PEP should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as povidine-iodine solution should be used to irrigate the wounds.
	HRIG	HRIG should not be administered.
	Vaccine	HDCV or PCECV 1.0 mL, IM (deltoid area†), 1 each on days 0§ and 3.

* These regimens are applicable for persons in all age groups, including children.

† The deltoid area is the only acceptable site of vaccination for adults and older children. For younger children, the outer aspect of the thigh may be used. Vaccine should never be administered in the gluteal area.

§ Day 0 is the day dose 1 of vaccine is administered.

¶ For persons with immunosuppression, rabies PEP should be administered using all 5 doses of vaccine on days 0, 3, 7, 14, and 28.

** Any person with a history of pre-exposure vaccination with HDCV, PCECV, or rabies vaccine adsorbed (RVA); prior PEP with HDCV, PCECV or RVA; or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to the prior vaccination.

SOUTH DAKOTA DEPARTMENT OF HEALTH