

NORTH DAKOTA
STATE DEPOSITORY
DOCUMENT

RABIES

in Livestock, Pets and Wildlife



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● WHAT IS RABIES

Rabies is an acute disease of warm-blooded animals. It is caused by a virus — the rabies virus. It is usually transmitted by bite, but it may also be introduced through skin injury or across mucosal membranes.

Signs of rabies vary widely among species and animals of the same species. At least two forms of rabies are recognized in domestic animals: the *FURIOUS* form and the *PARALYTIC* (or dumb) form.

Furious rabies is characterized by one or more of the following signs: restlessness, nervousness, viciousness, biting, strange sounds, **inability to swallow**, itching, erect ears, aggressiveness, genital excitement, pawing ground, constant movement, lack of fear.

Paralytic rabies is characterized by muscular paralysis starting in the head and neck, hanging lower jaw, **inability to swallow**, continuous salivation.

The rabies virus has a special affinity for nervous tissue; once introduced into the body, the virus "travels" through nerve endings into larger nerves, ultimately affects the brain and spinal cord and contaminates the saliva of the rabid animal.

● HOW TO FIRST RECOGNIZE RABIES IN ANIMALS

- Any change in normal behavior suggests rabies. The animal may: appear sick or lethargic; refuse to eat or drink; be very vocal or si-

lent; be more restless, fearful, affectionate or aggressive than usual; be paralyzed in some of its limbs.

- Try to recall whether the animal may have been exposed to rabies during the previous six months.

● HOW TO HANDLE RABIES SUSPECTS (ALIVE)

- Pets or livestock must be isolated in a room or stall.
- Dogs should be leashed in the isolation room to facilitate safe feeding and observation.
- Chaining without isolation permits possible exposure of other animals, including humans.
- If possible, isolate and cage other pets.
- Put livestock in a stall that can be approached only by qualified persons who are feeding or observing the animal.
- The animal may be destroyed and the head submitted for examination immediately. If the animal has rabies and is capable of transmitting virus, the laboratory will be able to determine it.
- You may elect to quarantine a rabies suspect, but submit the head for examination when signs of rabies first appears. Be sure the observation is being done by or supervised by a veterinarian.

● HOW TO PREVENT EXPOSURE TO RABIES

Here are some common sense rules which, if followed, will reduce needless exposure to rabies, increase the chances of immediate diagnosis through proper handling of suspects and specimens, and lower the incidence of disease by vaccination and control.

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North Dakota State University Fargo North Dakota 58105

- **Don't** chain a rabies suspect out in the yard. Chain the animal in an isolation room where it can be fed and observed by qualified persons.
- **Don't** explore the mouth or throat of a rabies suspect (livestock) with your bare hands. Choke-like symptoms caused by paralysis of the throat muscles can be confused with a foreign object stuck in the throat.
- **Don't** handle a rabies specimen without proper caution. Use rubberized gloves when removing the head of a rabies specimen.
- **Don't** shoot an animal in the head. Kill the rabies suspect so the brain tissues are not damaged.
- In case of human exposure, submit the head of the suspect animal immediately for rabies examination.
- **Don't** pick up live rodents or injured pets. Wild animals or injured pets will normally bite to protect themselves.
- **Don't** pet stray dogs or cats. Leave stray animals alone.
- **Don't** remove live animals from traps. Be very sure the animal is dead before removing it from the trap.
- **Don't** keep pets without vaccinating them for rabies at proper intervals.
- Consult with your veterinarian to assure that your pet is up to date in its rabies vaccination.
- **Don't** keep pets without vaccinating them for rabies at proper intervals.
- **Don't** allow skunks to live under farm buildings. Skunks are the single most common source of rabies exposure.
- **Don't** approach wildlife that act sick, injured or unafraid of man. Contact the Division of Wildlife Services of the U.S. Fish and Wildlife Service or your local game warden.
- **Don't** make a diagnosis of rabies without the assistance of qualified persons. Consult your local veterinarian, district or local health department, county agent or game warden concerning the rabies suspect.
- **Don't** ship the rabies specimen to the laboratory without identification. Include a copy of the case history report with the specimen.
- **Don't** send the specimen if it will arrive at the laboratory on a weekend or holiday. Make sure the specimen arrives when it can be processed immediately.
- **Don't** hold the specimen too long in warm weather. Ship with proper refrigeration and as soon as possible.
- **Don't** ship a specimen to the laboratory unless it is properly sealed and packaged. Seal the can containing the head and refrigerant so that no one hauling it will be exposed.
- **Don't** send specimens through the mail. Ship by bus, other common carriers, or bring directly to the laboratory.
- **Don't** send specimens involving only animal exposure to the Public Health Laboratory. All

rabies specimens without human exposure are processed at the **Department of Veterinary Science, North Dakota State University, Fargo, North Dakota 58105.**

- **Don't** send specimens involving human exposure to the Department of Veterinary Science. Rabies specimens involving human exposure are shipped direct to the **Public Health Laboratory, 1205 Ave. A West, Bismarck, ND 58501** for examination. Phone (701) 224-2384.
- **Don't** ignore a wound if exposed to a suspected rabid animal. Immediately wash wound thoroughly with soap and water and disinfect with alcohol. **Consult a private physician immediately.**

● HOW TO HANDLE RABIES SPECIMENS (DEAD)

- Shoot any pet or wildlife species that cannot be captured alive or held in isolation.
- Destroy the animal in such a manner that the brain is not damaged.
- Use rubber gloves to handle the specimen.
- Remove the head and place in a plastic bag. Seal the bag. If the brain has been punctured (shot) or the skull crushed, include a portion of the spinal column with the head.
- Refrigerate the head in a plastic bag by packing ice around it. Cracked ice in wet sawdust should be used for large heads. At least five parts ice to one part head should be used during shipment in the summer. Place the plastic bag in a can.
- Seal and insulate the can containing the refrigerant and head.
- Label the can with proper address and include on the can — **PERISHABLE — KEEP COOL.**
- Forward a letter containing the case history to the diagnostic laboratory immediately. Include a copy of the history with the specimen.
- For human exposure rabies specimens, contact your local or district health office for assistance. They have proper containers and data sheets, and will handle all of the details for you, including shipment of the specimen.

● WHERE TO TAKE SPECIMENS FOR RABIES TESTING

Whenever **HUMAN EXPOSURE** is involved, specimens must be examined at the **NORTH DAKOTA PUBLIC HEALTH LABORATORY, 1205 Avenue "A" West, Bismarck, ND 58501, phone: (701) 224-2384.** Submit specimen **with** history report directly to the Public Health Laboratory or seek assistance at the District Health Units (located in Devils Lake, Dickinson, Mandan, Minot and Williston) or at the City-County Health Units (located in Bismarck, Fargo, Grand Forks and Jamestown).

Rabies suspects **NOT** associated with human exposure are examined only at the Veterinary Diagnos-

tic Laboratory, NDSU, Fargo, ND 58105, phone: (701) 237-7527 or 237-8307.

There is no difference in the quality and type of processing at either laboratory, but the law requires that human exposure cases be processed at the Public Health Laboratory.

● **VACCINATION OF ANIMALS AGAINST RABIES**

Numerous vaccines are presently available to protect domestic animals against rabies. Rabies vaccines are of two types: (1) modified live virus rabies vaccine and (2) inactivated vaccines. Both types are equally effective, but it is essential that they be administered by a licensed veterinarian. The dosage is 1 ml for all rabies vaccines presently used, but there is a wide variation among vaccines regarding which

animal species they are intended for, how early they can be administered and how often they must be boosted. Some vaccines are to be used only in dogs, some only in cats, others in dogs and cats only. Some vaccines may be used in dogs, cattle, horses, sheep and goats. Dogs and cats may receive their primary vaccination as early as 3 months of age.

CONSULT YOUR VETERINARIAN regarding rabies vaccines.

Neither wild nor exotic animals should be kept as pets. No rabies vaccine is licensed for use in wild animals and there is no evidence that vaccines approved for use in domestic animals produce acceptable levels of immunity in wild animals. **KEEP WILD ANIMALS IN THE WILD.**

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