



# Rabies Prevention

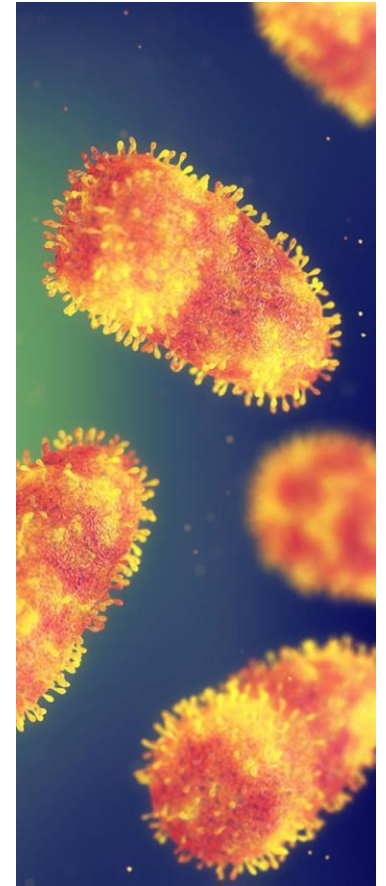
March 2025

Ellen Santos, PhD

Epidemiology Program Manager  
Pima County Health Department

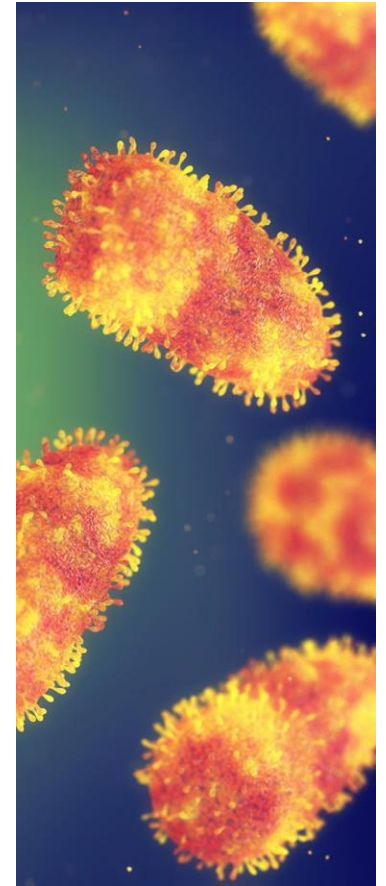
# What is rabies?

- Rabies is a serious, fatal disease that is spread through saliva. People or animals get rabies from the saliva of an infected animal, typically through a bite.
- Rabies is not spread through contact with blood.
- Only mammals get rabies and pass it to others. Animals like snakes, fish, and birds don't get rabies.



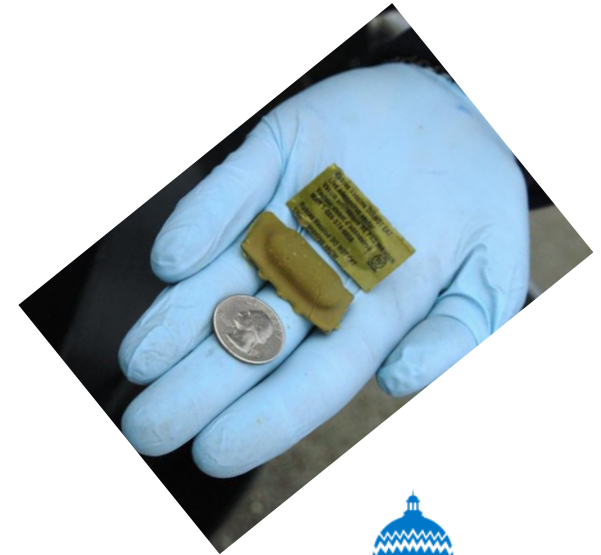
# Rabies in humans

- Each year, around 59,000 people worldwide get rabies. The most recent human case in the U.S. was in November 2024.
- After someone gets infected, it can take anywhere from 14 to 90 days for symptoms to appear. Once symptoms start, rabies is almost always fatal.
- At first, the symptoms are similar to the flu. Later, the disease can progress into either furious or paralytic rabies.
  - **Furious rabies** causes symptoms like agitation, hallucinations, trouble moving, fear of water, and fear of drafts/fresh air. Death happens after a few days because the heart or lungs stop working.
  - **Paralytic rabies** causes muscles to become paralyzed, starting at the site of the bite. This can lead to a coma and eventually death.



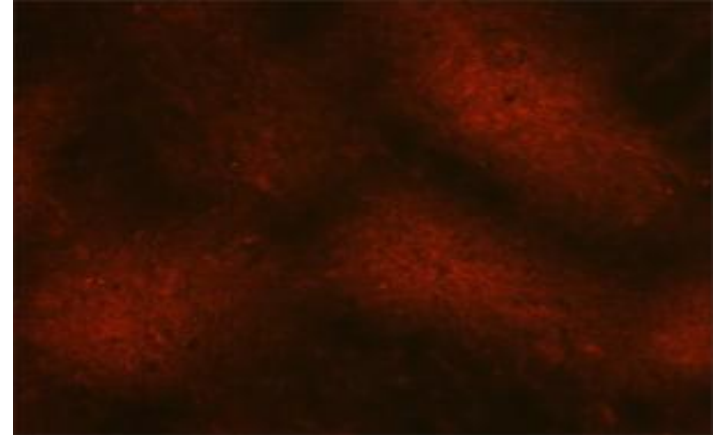
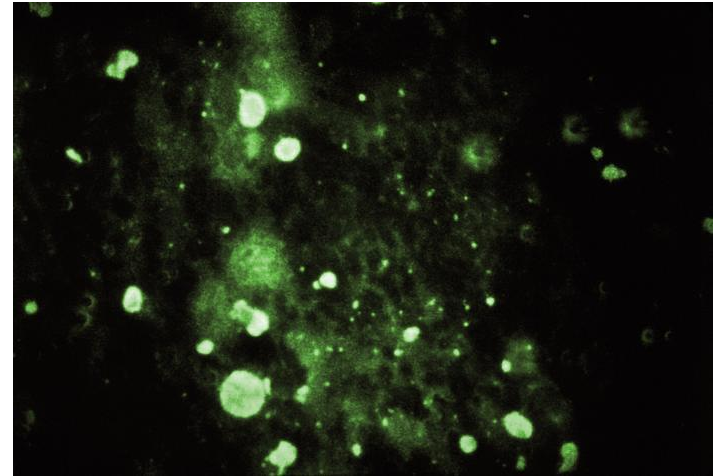
# Rabies in animals

- In domestic pets, rabies symptoms appear within 14 days. For livestock and wild animals, it can take 3 weeks to six months.
- Symptoms often resemble furious rabies, with animals acting abnormally—calm animals may attack, while others may hide or avoid people.
- Rabies vaccinations are routine for domestic pets (cats, dogs, ferrets) and some livestock (horses, cattle, sheep).
- Some states also run programs to vaccinate wild animals, but wildlife are not regularly vaccinated.



# Rabies testing

- **Rabies in animals** can only be confirmed by testing brain tissue.
- **Symptoms** like paralysis and drooling could be caused by other illnesses.
- **If rabies is suspected**, authorities may euthanize the animal and test its brain tissue. There's no way to test for rabies in a live animal.
- **In humans**, tests on saliva, skin, blood, or spinal fluid can detect rabies, but an autopsy is needed to confirm the infection.





# Rabies testing



- The Pima County Health Department works with local agencies to check if a person might have been exposed to rabies.
- The Pima Animal Care Center handles bites or exposures from domestic animals, bats, and some wildlife.
- The Arizona Game and Fish Department (AZGFD) and USDA respond to bites or exposures from most wildlife and test for animals that had no human contact.

# What's going on with skunks?

- Skunks are a major source of rabies. Although it's rare to be exposed, over 20% of skunks that do expose people or pets have rabies, making them the highest risk for rabies in the U.S.

| Skunks with Rabies | 2024 | 2025 so far |
|--------------------|------|-------------|
| Pima County        | 10   | 4           |
| Santa Cruz County  | 7    | 10          |
| Cochise County     | 4    | 4           |
| Arizona Overall    | 36   | 18          |



# What about bats?

- The Sonoran Desert is home to over 70 species of bats. Some stay year-round, while others migrate in winter.
- Bats here roost in habitats dense with a lot of trees and brush, caves, rocky areas, and under bridges, or sometimes in attics, crawlspaces, or abandoned buildings.
- Bats can't take off from the ground, so if you find one on the ground, it may be sick or injured.
- These bats are small, and their bites are hard to feel or see. The picture here shows how small a bat bite can be.
- Bats can carry diseases that can spread to humans. For your safety and theirs, **never try to pick up or handle a bat.**





# Another thing about bats...

- Bats are protected by state law, and disturbing a bat colony with babies can lead to dead bats and heavy fines. Bats reproduce slowly, but their benefits outweigh any harm they cause. While bats should not be allowed inside homes, it's okay to have or welcome them outside.
- All bats in Arizona are protected and cannot be collected or killed.
- **It's illegal to use pesticides or chemicals on bats.**





Western Pipistrelle

## Common bat species in AZ

\*Notice how small they are



Mexican Free Tailed Bat

# What if I'm bitten?

1. If you are bitten or scratched, wash with soap and water for **10 minutes**.
2. If it was a domestic animal, first call PACCC at 520-724-5900 to report
3. Next, call Pima County Health Department at **520-724-7797** to report. PCHD will help assess the situation and recommend any next steps that are needed
4. You may need to get evaluated by a doctor. If necessary, the first dose of the rabies vaccine may be given.

# Rabies vaccination

- Since rabies is fatal once symptoms appear, it's important to get post-exposure treatment right away.
- Rabies vaccines are highly effective when given quickly.
- The vaccine is given in four doses. The first dose, along with Human Rabies Immunoglobulin (hRIG), is given right after the bite on "day zero."
  - Doses 2, 3, and 4 are given on days 3, 7, and 14.

# Questions?

Reach out to Ellen Santos at the Pima County Health Department, [ellen.santos@pima.gov](mailto:ellen.santos@pima.gov) or 520-724-2431

