

## Outdoor Enthusiasts: Protect Yourself From Wildlife Diseases

Many Texans enjoy outdoor activities such as hiking, camping, and hunting year-round. However, outdoor activities bring a greater risk of exposure to diseases transmitted by animals, ticks, fleas, and mosquitoes.

**Plague** is a bacterial disease common in the wild rodent and rabbit populations of West Texas and is transmitted to people by fleas or by direct contact with infected animals, such as prairie dogs, squirrels, rats, and mice. Signs and symptoms of this dreaded disease often include fever, malaise, and painful, swollen lymph nodes. Without prompt treatment, plague can be fatal.

**West Nile virus (WNV)** is spread through the bite of infected mosquitoes and is most commonly transmitted to humans in the summer and early fall months. Although most people infected by WNV do not become ill, about 20% may develop a self-limiting febrile illness (West Nile fever) and a very small percentage will develop a more severe infection of the nervous system, such as encephalitis. Encephalitis is an inflammation of the brain and may be caused by any of several mosquito-borne viruses, among other causes. Those persons who develop the more severe forms of West Nile disease (West Nile neuroinvasive disease) may have intense headache, high fever, nausea, weakness, and neurologic deficits, including altered consciousness and coma. WNV infections may be fatal in a small percentage of cases, particularly in the elderly.

**Lyme disease** is caused by a bacterium that is spread through the bite of an infected tick. It is the most frequently diagnosed tick-borne illness in the United States. Infection may cause skin lesions or rash, fever, fatigue, headache, muscle and joint aches and, in some cases, if left untreated, severe damage to the joints, heart, and nervous system. **Rocky Mountain Spotted Fever (RMSF)** is also transmitted by ticks. Infection is typically characterized by fever and a measles-like rash. RMSF can be rapidly fatal for some people if not treated quickly. **Tularemia** is yet another tick-borne bacterial disease, but it can also be transmitted directly through handling infected animals, particularly wild rabbits and rodents, or exposure to mud or water containing the bacteria. Signs and symptoms of tularemia can vary widely depending on

the route of exposure, but typically they are non-specific and can include fever, malaise, skin lesions, and swollen lymph nodes, among many others.

Rodents can spread **hantavirus** to people. Infected rodents shed the virus in droppings, urine, and saliva. When these excretions dry out, the virus can spread in the air on dust particles. You can become infected by inhaling dust that contains the virus. Cleaning cabins, sheds, or barns without a mask can increase your chances of coming in contact with hantavirus. Early signs and symptoms of hantavirus are often flu-like, usually involving fever, fatigue, body aches, vomiting, and dry cough. The disease may lead to extreme difficulty with breathing, necessitating hospitalization and respiratory support.

Hunters should be aware that deer can carry **anthrax**, a bacterium that can cause a severe, life-threatening disease in both humans and animals. Anthrax infection in humans usually involves infection of the skin. The typical skin lesion is itchy and forms a coal-black scab several days after it appears. Feral hogs can carry **brucellosis**, a bacterial disease that can cause a prolonged febrile, systemic illness in humans and **trichinella** (“pork worm”), a nematode parasite that invades the intestines and muscles. Trichinella is transmitted through consumption of undercooked wild game, particularly feral pigs and bears.

**Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)** has been detected in white-tailed deer. Although there are some animals such as white-tailed deer that can be infected with SARS-CoV-2, there is currently no evidence that wildlife is a source of infection for people and no indication you can get COVID-19 by eating game meat in the United States. The risk of COVID-19 infection from handling potentially infected deer can be reduced by following the [Centers for Disease Control and Prevention’s \(CDC\) guidelines](#), including wearing gloves and masks when handling deer and washing hands or using hand sanitizer after handling deer.

**Rabies** is a viral infection of the nervous system that may affect almost any warm-blooded animal. This disease is present in many wild animal populations in Texas, including skunks, bats, raccoons, coyotes, and foxes, which are classified as high-risk species for rabies in Texas law. Humans usually are infected through a bite by a rabid animal. It is impossible to tell by looking at an animal whether it is infected with the rabies virus, so avoid contact with any wild animals, especially high-risk species. Do not try to assist injured animals as they may bite

you in self-defense. If you need assistance, contact a game warden, a park employee, or an animal control or law enforcement officer. If you are bitten or scratched by any animal, wild or domestic, promptly contact a physician or local health department to discuss the need for postexposure rabies prophylaxis (administration of rabies vaccine and immune globulin). Rabies is almost always fatal once signs and symptoms begin, but the disease can be prevented if prophylaxis is initiated prior to their onset.

When engaged in outdoor activities, take the following precautions to minimize your chances of contracting these or other diseases transmitted by wildlife:

- Use an effective insect repellent (such as those containing DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone) and follow package directions carefully.
- Stay on trails and avoid areas of overgrown brush and tall grasses.
- Avoid camping or picnicking near rodent and prairie dog burrows.
- Wear protective clothing such as a hat, long-sleeved shirt, and long pants tucked into boots or socks. Wear light-colored clothes so that ticks may be more easily seen on your body.
- Check your body thoroughly for ticks every few hours. Ticks are small, easy to miss, and will attach to any part of the body from head to toe, so look carefully.
- Do not touch dead animals or their remains, including antlers, bones, and hides.
- Wear latex-type gloves when dressing game.
- Wash your hands thoroughly with soap and water after handling game. If soap is not available, an alcohol-based hand sanitizer is an acceptable alternative.
- Consider wearing eye protection when dressing game to prevent potentially infectious fluids or tissues from splashing into your eyes. Shooting glasses provide an acceptable level of eye protection in most cases.
- Avoid eating, drinking, using tobacco, or rubbing your eyes while dressing game.
- Cook all game meats thoroughly. Do not give raw scraps to your pets.
- Follow [CDC guidelines](#) when cleaning up after rodents.

If you develop a fever or other signs of illness after handling wildlife, inform your medical provider about your animal contact.

For additional information about staying safe around animals, including wildlife, visit the CDC's ["Healthy Pets, Healthy People" website](#).

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