

# Protecting Against Diseases When Enjoying Outdoor Activities

Cooler weather entices thousands outdoors to enjoy hunting, hiking, camping and other activities. "But billions of critters that can carry disease-causing germs will be out there as well," said Guy Moore, a wildlife biologist with the Texas Department of State Health Services (DSHS). "Outdoor activities bring a greater risk of exposure to diseases transmitted by fleas, ticks and mosquitoes and other animals."

Animals can transmit such diseases as hantavirus, anthrax, brucellosis, tularemia and rabies. Deer can carry anthrax, a bacterium that can cause a severe, life-threatening disease in both humans and animals. Naturally-occurring anthrax infection in people usually involves skin infections. The typical skin lesion is itchy, forming a coal-black scab several days after it appears.

Wild hogs can carry brucellosis, a bacterial disease. Brucellosis symptoms in humans are similar to the flu and may include fever, sweats, headaches, back pain and physical weakness. The disease can cause long-lasting symptoms such as joint pain.

Fleas and some animals can transmit plague to people. This bacterial disease is common in some wild rodent and rabbit populations of West Texas. It is transmitted to people by fleas or by direct contact with infected animals such as prairie dogs, squirrels, cats, rats and mice. Symptoms may include painful, swollen lymph glands; headaches; fever; chills; and exhaustion. Untreated, plague can be fatal.

DSHS health suggestions for hunters include:

- Wear latex-type gloves when dressing game.
- Wash your hands thoroughly with soap and water or use an alcohol-based hand sanitizer after handling game.
- Wear eye protection when dressing game to prevent potentially infectious fluids or tissues from splashing into your eyes.

Mice can spread hantavirus infection to people, shedding the virus in droppings, urine and saliva. When these excretions dry, the virus can spread in the air on dust particles. "You can become infected by inhaling dust that contains the virus," Moore said. "Wearing a mask when cleaning cabins, sheds or barns can reduce the risk of coming in contact with hantavirus."

Early symptoms of hantavirus are often flu-like, including fever, fatigue, body aches, vomiting and dry cough. The disease may lead to extreme difficulty with breathing, necessitating hospitalization and respiratory support. About a third of hantavirus infections result in death.

All warm-blooded animals, including humans, are susceptible to rabies. This deadly viral disease is present in many wild animal populations in Texas, especially skunks, bats, coyotes and foxes. People usually are infected with the rabies virus through a bite by an infected animal. "People should avoid contact with any wild animals, especially injured animals," Moore said. "If you are bitten or scratched by any animal, wild or domestic, contact your physician or local health department to discuss the need for preventive rabies treatment." Rabies is almost always fatal once symptoms begin. The disease can be prevented if a series of shots is given before symptoms appear.

Ticks often are found in wooded, brushy and grassy areas - and on animals. A bite from an infected tick can cause illnesses such as Lyme disease, Rocky Mountain spotted fever and tularemia. Lyme disease infection may cause skin lesions or rash, fever, fatigue, headaches and muscle and joint aches. Untreated, Lyme disease may cause severe damage to joints, the heart and nervous system. Rocky Mountain spotted fever is characterized by fever and a measles-like rash. It can be rapidly fatal if not treated quickly.

People can get tularemia from the bite of an infected tick; handling infected animals, especially rabbits; eating or drinking contaminated food and water; and breathing in the bacteria. Tularemia symptoms may include fever, skin lesions, swollen lymph glands and general discomfort. The infection can be fatal if not treated.

If you are in an area with ticks, check your body carefully for them every few hours. Ticks are small, easy to miss and will attach to any part of the body.

Mosquitoes are a biting nuisance and can carry organisms that cause illnesses such as St. Louis encephalitis, eastern equine encephalitis, dengue fever and West Nile infection. Encephalitis is an inflammation of the brain with symptoms including intense headache, high fever, nausea, weakness, muscle tenderness, disorientation and coma. Infections can be fatal.

DSHS offers these suggestions to minimize your chances of contracting diseases outdoors:

- Use insect repellent containing DEET, picaridin or oil of lemon eucalyptus. Follow package directions. Stay on trails. 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 you can easily spot ticks.
- Do not touch antlers, bones, hides or other parts of animals found dead. "With the exception of West Nile infection, these illnesses are rare," Moore said. "But we'd like to keep it that way. Better to be safe than sick." He added that anyone developing illness symptoms after being outdoors should seek medical attention.