

Tularemia

What is tularemia?

Tularemia, commonly known as “rabbit fever”, is a bacterial disease of both humans and animals caused by the bacteria *Francisella tularensis*. Oklahoma has one of the highest numbers of reported tularemia cases each year.

How is tularemia spread?

Humans typically get tularemia from the bite of an infected tick, and less commonly from the deer fly. The ticks that can transmit tularemia in Oklahoma are the dog tick and the lone star tick. Humans have also gotten the disease from infected wild animals with the most common being rabbits. Other less common means of spread are drinking contaminated water, inhaling contaminated dust, handling contaminated pelts, or paws of animals or laboratory exposure. Tularemia is not spread from person to person.

Who gets tularemia?

Anyone can get tularemia, but people who spend long amounts of time outdoors are more likely to have exposure to infected ticks, deer flies, infected animals, or an area where an infected animal has died. Persons skinning or handling wild animals (especially rabbits) are at risk of exposure to tularemia. Mowing over sick or dead animals can cause contaminated dust to be released and inhaled. Laboratory personnel can be exposed when working with *F. tularensis* cultures.

What are the symptoms of tularemia?

Type	Transmission	Symptom
Ulceroglandular	Tick or deer fly bite Handling an infected animal	Skin ulcer appears at the site where the bacteria entered the body with swelling of lymph glands, usually in the armpit or groin.
Glandular	Tick or deer fly bite Handling an infected animal	Swelling of lymph glands, usually in the armpit or groin.
Oculoglandular	Bacteria enters through the eye.	Irritation and inflammation of the eye and swelling of lymph glands in front of the ear.
Oropharyngeal	Eating or drinking contaminated food or water	Sore throat, mouth ulcers, tonsillitis, and swelling of lymph glands in the neck.
Pneumonic	Breathing dusts or aerosols containing the organism. Or when other forms of tularemia are left untreated and spread to the lungs	This is the most serious form of tularemia. Symptoms include cough, chest pain, and difficulty breathing.
Typhoidal	This form is characterized by any combination of the general symptoms listed above	

How soon do symptoms appear?

Symptoms usually start 3-5 days after exposure but can take as long as 14 days. If a person experiences a fever, or extreme soreness near the site of a tick bite within two weeks of a tick exposure, it is important to contact your doctor as soon as possible and tell him/her about the tick bite.

What is the treatment for tularemia?

Specific antibiotics prescribed by a doctor are used to treat tularemia.

Does past infection with tularemia make a person immune?

Some people have long term immunity, but cases of reinfection have been reported.

What can be done to prevent the spread of tularemia?

- When hiking, camping or working outdoors:
 - Use Environmental Protection Agency (EPA)-registered insect repellents
 - Wear long pants, long sleeves, and long socks to keep ticks and deer flies off your skin.
 - Remove attached ticks promptly with fine-tipped tweezers.
 - Don't drink untreated surface water.
- When mowing or landscaping:
 - Don't mow over sick or dead animals. When possible, check the area for carcasses prior to mowing.
- If you hunt, trap or skin animals:
 - Use gloves when handling animals, especially rabbits, muskrats, prairie dogs, and other rodents.
 - Cook game meat thoroughly before eating.

How should a tick be removed?

Any tick should be removed as soon as possible. The best way is to use tweezers to grab the tick as close to the skin as possible and pull it straight out. Do not squeeze the tick's body when removing it. Do not handle ticks with bare hands.



Lonestar Tick (CDC)



Dog Tick (CDC)