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What is tularemia?

Tularemia is a bacterial disease that can cause a variety of symptoms, depending on how the organism enters the body. It is caused by the bacterium *Francisella tularensis*, which is found in the environment, in wild animals (particularly rabbits, hares, and rodents), and in arthropods like ticks and deer flies.

Who gets tularemia?

Anyone can get tularemia, but it is thought of as a disease that mostly affects rabbit hunters and people (especially children) who have had tick bites in areas where the disease occurs. About 230 human cases of tularemia are reported each year in the United States. On average, two human cases of tularemia are reported in Virginia each year.

How is tularemia spread?

This bacteria can be spread in a variety of ways. The skin, eyes, mouth and throat of hunters may be exposed to the bacteria while skinning or dressing wild animals, especially rabbits or hares. Handling or eating uncooked meat from infected animals, handling pelts and paws of animals, or getting bitten by certain ticks or flies may also transmit the disease. Another possible, but rare, route of exposure is by inhaling infected aerosols, such as dust from contaminated soil, hay, or grain. Transmission of tularemia from one person to another has not been reported.

What are the symptoms of tularemia?

Tularemia causes different symptoms depending on where the bacteria enter the body. Tularemia can cause swollen and painful lymph glands, inflamed eyes, sore throat, ulcers in the mouth or on the skin, and pneumonia-like illness. All forms are accompanied by fever, which can be as high as 104 °F. Pneumonia may be a complication of infection regardless of where the bacteria entered the body.

How soon after exposure do symptoms appear?

Symptoms usually appear 3 to 5 days after exposure to the bacteria, but can take from 1 to 14 days to develop.

How is tularemia diagnosed?

Tularemia can be difficult to diagnose and may be mistaken for other more common illnesses. For this reason, it is important to share with your health care provider any likely exposures, such as tick and deer fly bites, or contact with sick or dead animals. Laboratory tests of blood and/or specimens taken from the affected part(s) of the body can help confirm the diagnosis.

What is the treatment for tularemia?

Early treatment with an antibiotic is recommended.

How can tularemia be prevented?

A vaccine for tularemia is not currently available in the United States. If you suspect you have been exposed to tularemia, contact your doctor immediately. The best way to prevent tularemia is to:

- Avoid the bites of arthropods (most commonly ticks and deerflies). Wear insect repellent like DEET, picardidin or IR3535 while hiking, camping or working outdoors.
- Avoid drinking, bathing, swimming, or working in untreated water where wild animals are known to be infected.
- Avoid touching wild rabbits or other potentially infected animals. If contact cannot be avoided, use rubber gloves when handling animals. Cook the meat of wild rabbits and rodents thoroughly before eating it.
- Don't mow over sick or dead animals. When possible, check the area for carcasses prior to mowing.

Can tularemia be used for bioterrorism?

Experts are concerned that tularemia could be used as a bioweapon because *F. tularensis* is very infectious (a small number of organisms can cause disease). If tularemia was used as a weapon, the bacteria would likely be made airborne, causing severe respiratory illness in people.

How can I get more information about tularemia?

- If you have concerns about tularemia, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at the [VDH Local Health Districts page](#).
- Visit the Centers for Disease Control and Prevention website at [the CDC page on tularemia](#).

[Tularemia: Overview for Health Care Providers](#) (Updated June 2023)

Two page summary of: Organism, Reporting, Infectious Dose, Occurrence, Natural Reservoir, Route of Infection, Communicability, Case-fatality Rate, Risk Factors, Incubation Period, Clinical Manifestations, Differential Diagnosis, Laboratory Tests/Sample Collection, Treatment, Vaccine

[Tularemia: Guidance for Health Care Providers](#) (Updated June 2023)

Key Medical and Public Health Interventions After Identification of a Suspected Case

September 2019

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