

## Tularemia

### Rabbit Fever

#### What is tularemia and what causes it?

Tularemia (tool-ah-rEEem-EE-ah), also called rabbit fever, is a disease caused by the bacteria *Francisella tularensis* (fran-sis-SELL-ah too-la-REN-sis). Tularemia occurs naturally worldwide. It is also listed as a potential biological weapon. Disease can range from mild to severe, flu-like illness in humans and many animals.

#### What animals get tularemia?

Rabbits and other wild rodents are the primary species affected. Tularemia can also affect beaver and muskrats. Livestock and pets including pigs, horses, dogs, cats, fish and birds can also get tularemia. Sheep are especially susceptible. Cattle rarely get the disease.

#### How can my animal get tularemia?

Tularemia bacteria can be found in the organs or body fluids of infected animals, which contaminates the environment. The bacteria can live for long periods of time (weeks to months) in soil, vegetation and water and serve as a source of infection for other animals or humans.

Animals get tularemia by **ingesting** (oral) contaminated food (raw meat from infected animals) or drinking contaminated water. They can also inhale (**aerosol**) the bacteria, have **direct contact** with it in contaminated environments (entry through the mucous membranes or breaks/cuts in the skin), or be bitten by infected biting flies or ticks (**vector**).

#### How does tularemia affect my animal?

Some animals do not show signs of disease. Illness occurs 1 to 10 days after exposure to the bacteria. Animals may have a fever, look tired, be depressed and refuse to eat. Some will have a cough, stagger from weakness, vomit or develop diarrhea. Rabbits and rodents behave strangely, huddle together and have a rough looking coat. Sudden death can occur.

#### Can I get tularemia?

Yes. Humans can get tularemia by **direct contact** with infected animals, inhaling (**aerosol**) the bacteria in contaminated environments, **eating** (oral) contaminated food or water or from the bite of an infected insect (**vector**). Signs usually appear 3 to 5 days after exposure.

Disease varies depending route of exposure to the bacteria. Initially flu-like signs, such as fever, chills, nausea, headache and joint pain occur. Glands (or lymph nodes) may become swollen and painful and may break open and drain pus.



**Tularemia**  
is a bacterial disease  
spread by  
infected animals,  
aerosol, ingestion,  
ticks, and deer flies.

Photos show a rabbit (reservoir) and finger lesion due to tularemia. Photos from wikimedia.org and Oklahoma State Dept of Health.

Other signs include skin rash, sore throat, or swelling of the eyes. If the lungs become infected, coughing, chest pain, shortness of breath, and severe pneumonia can occur.

#### Who should I contact, if I suspect tularemia?

##### In Animals –

Contact your veterinarian.

##### In Humans –

Contact your physician.

#### How can I protect my animal from tularemia?

Tularemia is difficult to prevent since it can be in the environment or be spread by insects. Prevention measures include keeping pets indoors and away from wildlife. Do not feed animals raw meat, especially that from wild animals. Control ticks and biting flies.

#### How can I protect myself from tularemia?

Avoid contact with wildlife, especially sick animals. Do not handle dead wildlife without gloves. Wash your hands after touching any animal and especially before you eat. When outside, wear insect repellents that contain DEET. Cook all meats and foods thoroughly. Wash fruits and vegetables before eating them. Only drink water from a safe source.

#### For More Information

CFSPH Technical Fact Sheets. Tularemia at <http://www.cfsph.iastate.edu/DiseaseInfo/>

CDC website. Tularemia at <http://www.cdc.gov/tularemia/>