

# Tularemia and Bioterrorism

## What is tularemia?

Tularemia is a serious illness caused by the bacterium *Francisella tularensis*. This bacteria is most commonly found in animals, especially rodents, rabbits and hares.

## How do you get it?

People can get tularemia in several different ways, including being bitten by an infected tick, handling infected animals, eating or drinking contaminated food or water or breathing in the *F. tularensis* bacteria. Tularemia organisms do not spread from person to person, so infected people do not need to be isolated.

## Can tularemia be used as a bioterrorism threat?

Several terrorist groups and some nations are believed to have or are experimenting with biological weapons programs. Tularemia is considered a potential threat as a biological weapon because the bacteria are very infectious. A small number can cause the disease. To be used as a weapon the bacteria would likely be made airborne. People who inhale an infectious aerosol would generally experience severe respiratory illness, including life-threatening pneumonia and infections if not treated. The bacteria occur widely in nature and could be isolated and grown in quantity

in a laboratory, although manufacturing an effective aerosol weapon would require advanced knowledge and technology.

## What are the symptoms?

Symptoms of tularemia include fever, headache, chills, cough, chest pain, sore throat, vomiting, diarrhea and abdominal pain, with stiff neck and back pain occurring less frequently. A rash occurs in about a third of patients.

## How long does it take for a person to become sick?

Symptoms may appear from 1 to 14 days after exposure, but usually appear within 3 to 5 days.

## How is tularemia diagnosed?

Health care workers diagnose tularemia through laboratory tests on blood or sputum. Preliminary laboratory results may be ready in less than 2 hours; confirmation results may take from 24 to 48 hours. A person may be given treatment based on symptoms before the laboratory results are ready.

## How is tularemia treated?

Antibiotics including streptomycin, gentamicin, doxycycline or ciprofloxacin are used to treat tularemia in both adults and children. These antibiotics must be taken

according to directions for as many days as directed, usually from 10 to 14 days. All the medication must be taken.

### **Is there a vaccine?**

A vaccine for tularemia is not currently available in the United States.

### **Would enough medication be available in the event of a bioterrorism attack?**

Public health officials have large supplies of drugs, including any antibiotics needed in the event of a bioterrorism attack. These supplies can be sent anywhere in the United States within 12 hours.

### **How can I protect myself?**

Tularemia occurs naturally in many parts of the United States including Texas. About 200 cases in people are reported in the United States each year. Use insect repellent with DEET to prevent insect bites. Wear rubber gloves when skinning or handling animals, especially rabbits. Wild game meat should

be cooked thoroughly before eating. If you suspect you have been exposed to tularemia bacteria, get immediate medical care.

### **What is the public health system doing about the possibility of an outbreak?**

Local, state and federal public health agencies are actively working with local health care providers, hospitals, emergency response teams, laboratories, veterinarians and others to prepare for large outbreaks and biological disasters of all types, including tularemia. If bioterrorism is suspected, the Department of State Health Services notifies the CDC, FBI and other appropriate authorities.

### **Where can I get more information?**

Contact your local health department. Tularemia information can be found on the Department of State Health Services Web site at [www.dshs.state.tx.us/idcu/disease/Tularemia/](http://www.dshs.state.tx.us/idcu/disease/Tularemia/) and on the CDC Web site at [www.bt.cdc.gov/agent/tularemia](http://www.bt.cdc.gov/agent/tularemia).