



Indiana State Department of Health

Epidemiology Resource Center

Quick Facts

About...Tularemia

What is tularemia?

Tularemia is disease caused by a bacterium called *Francisella tularensis*. This bacterium is carried by small mammals such as mice, rats, squirrels, rabbits and hares. Water and soil may also be contaminated. People are more likely to be exposed in rural settings, although urban and suburban exposures can occur.

How is tularemia spread?

People can develop severe, sometimes fatal illness if they become infected with the tularemia bacterium. Infection typically occurs from:

- Bites from infected flies or ticks
- Handling contaminated animal tissues or fluids
- Direct contact with or eating contaminated water, food or soil
- Breathing in air that has particles of bacteria in it

Tularemia is **NOT** spread from person to person.

Who is at risk for getting tularemia?

Anyone who is exposed to the bacterium may be at risk for getting tularemia.

How do I know if I have tularemia?

The signs and symptoms of tularemia depend on how the bacterium enters the body. The five main types of tularemia are listed below. Illness may be mild, life-threatening, or somewhere in between. All forms have a fever.

- **Ulceroglandular:** This is the most common type of tularemia. It happens after a bite from an infected fly or tick, or after handling tissues from an infected animal. A skin ulcer appears at the site where the bacterium entered

the body. At the same time the ulcer appears, there will be swelling of nearby lymph glands, usually in the armpit or groin.

- **Glandular:** This form is like ulceroglandular tularemia, but an ulcer is not present.
- **Oculoglandular:** This form occurs when the bacterium enters through the eye. This can happen when a person is working with an infected animal and then touches his or her eyes without washing hands first. Symptoms include irritation, redness, pain, or swelling of the eye and swelling of the lymph glands in front of the ear.
- **Oropharyngeal:** This form results from eating or drinking contaminated food or water. People with this type may have a sore throat, mouth ulcers, tonsillitis, and swelling of the lymph glands in the neck.
- **Pneumonic:** This is the most serious form of tularemia. It results from breathing dust or air containing the bacterium. It can also occur when other types of tularemia (e.g., ulceroglandular) are not treated, allowing the germ to spread through the bloodstream to the lungs. Symptoms include cough, chest pain, and difficulty breathing.

How is tularemia treated?

Tularemia can be treated with medicine from your doctor. Treatment lasts at least 14 days.

How is tularemia prevented?

- Avoid handling sick or dead animals if at all possible. Educate yourself on safe techniques for hunting and butchering wild prey.
- Take personal measures to prevent bites from flies and ticks when outdoors.
- There is no vaccine available to prevent tularemia.

All information presented is intended for public use. For more information, please refer to: <http://www.cdc.gov/Tularemia/>

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