



# Indiana State Department of Health

## Epidemiology Resource Center

### Quick Facts

#### About...Tularemia

##### What is tularemia?

Tularemia is disease caused by a germ that can be found in small mammals such as mice, rats, squirrels, rabbits and hares. The germ that causes the infection is *Francisella tularensis*. 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?

Humans become infected outside and can develop severe, sometimes fatal illness. Infection typically occurs from:

- Bites by flies or ticks that have the germ
- Handling animal tissues or fluids that have the germ on them
- Direct contact with or eating contaminated water, food or soil
- Breathing in air that has the germ in it

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

##### Who is at risk for getting tularemia?

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

##### How do I know if I have tularemia?

The signs and symptoms of tularemia vary by how the germ 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 germ 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 without an ulcer.
- **Oculoglandular:** This form occurs when the germ enters through the eye. This can happen when a person is working with an infected animal and touches his or her eyes. Symptoms include irritation, redness, pain, or swelling of eye and swelling of lymph glands in front of the ear.
- **Oropharyngeal:** This form results from eating or drinking food or water that has the germ in it. People with this type may have a sore throat, mouth ulcers, tonsillitis, and swelling of lymph glands in the neck.
- **Pneumonic:** This is the most serious form of tularemia. It results from breathing dusts or air containing the germ. It can also occur when other types of tularemia (e.g. ulceroglandular) are not treated and the germ spreads through the blood stream to the lungs. Symptoms include cough, chest pain, and having a hard time breathing.

### **How is tularemia treated?**

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

### **How is tularemia prevented?**

- Educate yourself on the proper handling of sick or dead animals, particularly when hunting, camping, or butchering; and avoid handling them if at all possible.
- 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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