



## TULAREMIA

### What is tularemia?

Tularemia is a disease found in the Northern Hemisphere that affects both people and animals. It is caused by the bacteria *Francisella tularensis*. The disease is naturally found in wild animals. Tularemia infection in persons is not common in Canada. The disease in persons is also called “rabbit fever”.

### How do people and animals get tularemia?

Many wild animals can be infected including hares, rabbits, squirrels, muskrats, beavers and other rodents, and deer. Occasionally domestic animals such as sheep and cats can also be infected. Tularemia is usually spread to animals by bites from infected bloodsucking insects like ticks and deerflies.

Animals infected with tularemia can have the bacteria in their blood and tissues. Persons can become infected through direct contact with tissues from infected animals, especially rabbits and hares. The bacteria can enter a person’s body through a cut or abrasion in the skin or through mucous membranes (specialised skin around the eyes, nose, and mouth). This most often occurs from handling, dressing or skinning infected animals with bare hands. It can also occur by improper handling of raw meat or eating undercooked meat from infected rabbits and hares. Tularemia is not spread from person to person.

Tularemia can also be spread to people by bites from infected bloodsucking insects like ticks and deerflies. Less common means of infection include drinking contaminated water or breathing in dust from contaminated soil.

### What are the symptoms of tularemia in persons?

Symptoms usually appear a couple of days after exposure. Symptoms may include a sudden onset of fever, chills, headache, and body aches. Most persons with tularemia have swollen lymph nodes and skin ulcers present where the bacteria entered their body. In cases where a person was infected from handling an animal carcass, the skin ulcers are usually on the hand or arms. If a person was infected by bites from insects, the skin ulcers are usually found on the legs or torso.

In those cases where a person was infected by eating undercooked meat or drinking contaminated water, there may be a throat infection, abdominal pain, diarrhea and vomiting. Pneumonia can be present if a person breathed in the bacteria. Serious complications can develop.

Antibiotics are effective in treating tularemia.

### How does tularemia affect animals?

The clinical signs of tularemia infection in animals are not always obvious. Some animal species like rodents and rabbits can become very ill and often die. Infected rabbits may run slowly or stagger, appear dazed, and are easily captured. The abnormalities found in dead infected hare, beaver and muskrat carcasses include an enlarged spleen and small white spots scattered throughout the liver, spleen and lymph nodes.

Other animals, including sheep and birds, can become infected but do not often develop serious illness. Domestic cats can also become infected, most likely due to hunting infected rodents, but they do not usually become ill.

### How can tularemia and other diseases of wild animals be prevented in persons?

Follow animal handling precautions. Wear waterproof gloves (rubber, vinyl, or latex) and protective clothing (coveralls, boots, and glasses) when cleaning and processing wild game and fur-bearing animals. This includes handling, dressing or skinning hares, muskrats and beavers. Prevent contact of bare skin with animal faeces, body fluids, and external parasites. Prevent animal bites and scratches.

Practice good personal hygiene. Wash hands thoroughly with soap and water after handling animals or animal carcasses, after handling raw meats, and before handling or eating food.

Practice basic food safety precautions. Thoroughly cook all meats including hare and wild game. Prevent contact of cooked foods with raw meats. Bacteria can be spread to other foods by cutting raw meat on a cutting board, and then using the unwashed cutting board or utensil to prepare other foods.

Do not drink untreated surface waters found in streams, lakes, and ponds.

Prevent bites from ticks and other insects. Wear long-sleeved tops, long pants and socks. Use an insect repellent containing DEET or other Health Canada approved repellents.

New Brunswick Veterinary Medical Association in collaboration with the Department of Health and Wellness