

# STATE OF COLORADO

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Colorado Department  
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and Environment

## MEMORANDUM

To: Files  
From: John Pape, Epidemiologist, Communicable Disease Epidemiology Program  
Date: October 3, 2001  
RE: 1999/2000 Tularemia Summary

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Tularemia is an uncommon disease in Colorado with a clinical presentation and risk factors similar to plague. Infection is caused by the bacterium *Francisella tularensis*. Persons are infected by dermal inoculation, inhalation or ingestion of blood, urine or tissues from infected animals, commonly rabbits, beaver, and muskrats, or arthropod (tick & deer fly) bites. Symptoms can vary depending on the type of exposure but typically include fever, malaise, myalgia, a slow healing ulcer and an enlarged regional lymph node that drains the inoculation site. Tularemia has a considerably lower mortality rate than plague.

Animal surveillance specifically for tularemia is not conducted but testing on animal carcasses submitted for plague surveillance is conducted. No cases of tularemia in animal specimens were documented in 1999 or 2000.

Three human cases occurred in 1999. The first case was a 4 year-old Moffat County boy that developed fever, cervical adenopathy and a draining lesion on his scalp. Infection was confirmed by the presence of antibodies to the bacteria in the blood. A 7 year-old Jefferson County boy, also presented with fever, a cervical abscess and lymphadenopathy. Cultures of his blood and abscess exudates were positive for type B *F. tularensis*. Both boys reported tick bites at the site of the ulcerative lesion. The third case was a 77 year-old Montezuma County woman who developed fever and a pustular lesion on her forehead. A culture of the lesion grew *F. tularensis*. She could not recall a tick or insect bite, but the location of the lesion would suggest a deer fly bite.

In 2000 there were two human cases. The first case occurred in a 27 year-old Larimer County student who sustained numerous insect bites while conducting ecology studies in Kansas. She was diagnosed based on elevated antibody titers. The second case occurred in an 11 year-old Morgan County boy who developed fever and an enlarged cervical lymph node. Aspirates from the node were culture positive for type A tularemia.