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MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH FACT SHEET

Tularemia

**What is tularemia?**

Tularemia is a disease caused by the bacteria (germ) *Francisella tularensis.* It is a disease that occurs in both animals and humans.

**Does tularemia occur in Massachusetts?**

It is relatively rare in most of Massachusetts. However, tularemia cases have been occurring every year on Martha’s Vineyard since 2000. The majority of cases have been people who work outdoors, particularly landscapers.

**How do people get tularemia?**

Humans may get it from an infected tick. In Massachusetts, the common dog tick is most likely to carry the tularemia germ. People can also get it after touching or eating an infected animal, having contact with water or soil that has been contaminated by an infected animal, or being bitten by an infected animal. Rabbits and rodents such as voles, squirrels, muskrats and beavers are most likely to be infected. The most common source on Martha’s Vineyard is breathing contaminated particles during landscaping.

Dogs and cats can also get tularemia from ticks, an infected animal or contaminated soil or water. In extremely rare cases, sick pets have exposed their owners or veterinary staff caring for the animal.

**What are the symptoms of tularemia?**

Symptoms will be different depending on how the germs get into your body. If the germs are spread by an infected tick bite or by touching an infected animal, symptoms may include a skin sore (ulcer) and/or swollen glands (lymph nodes). Eating food or drinking water that has been contaminated with the germs may cause throat or intestinal pain, diarrhea and vomiting. Breathing in the germs will cause fever and a pneumonia-like illness with coughing, chest pain and/or shortness of breath.

**How soon do symptoms of tularemia appear?**

Symptoms usually appear between 3 and 5 days after an exposure. It can take as long as 21 days.

**How is tularemia treated?**

It can be treated with antibiotics. It is important to see your doctor right away if you think you may have tularemia.

**Can tularemia be used for bioterrorism?**

Yes. Bioterrorism is the use of any biological organism to intentionally hurt people or create fear. The U.S. Centers for Disease Control and Prevention (CDC) lists tularemia as a possible bioterrorism agent; however, it has never been successfully used in this manner.

**How can tularemia be prevented?**

**Prevention begins with you!** Take steps to reduce your chances of being bitten by any tick. Ticks are most active during warm weather, generally late spring through fall. However, ticks can be out any time that temperatures are above freezing. Ticks cling to vegetation and are most numerous in brushy, wooded or grassy habitats. Follow these simple steps to protect yourself and your loved ones:

* Use a repellent with DEET (the chemical N-N-diethyl-meta-toluamide) or permethrin according to the instructions given on the product label. DEET products should not be used on infants under two months of age and should be used in concentrations of 30% or less on older children. Permethrin

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products are intended for use on items such as clothing, shoes, bed nets and camping gear and should not be applied to skin. Other repellents, such as picaridin, oil of lemon eucalyptus and IR 3535, have also been found to provide protection against ticks. More information on choosing a repellent and how to use repellents safely is included in the MDPH Public Health Fact Sheet on Tick Repellents at [www.mass.gov/dph/tick](http://www.mass.gov/dph/tick).

* Wear long, light-colored pants tucked into your socks or boots and a long-sleeved shirt. This may be difficult to do when the weather is hot, but it will help keep ticks away from your skin and help you spot a tick on your clothing faster.
* Stay on cleared trails when walking or hiking, avoiding ticks near edge habitat.
* Talk to your veterinarian about tick control options (tick collars, repellents) for your pets.

**After spending time in an area likely to have ticks, check yourself, your children and pets for ticks**. Adult dog ticks are about the size of a small watermelon seed. Remember that ticks like places that are warm and moist. Check the back of the knees, armpits, groin, scalp, back of the neck and behind the ears. If you find an attached tick, remove it as soon as possible using a fine-point tweezers. Do not squeeze or twist the tick’s body; grasp it close to your skin and pull straight out with steady pressure.

**Other important steps you can take to reduce your chances of getting tularemia:**

* Avoid contact with wild animals, their droppings or carcasses. If you notice a sick or injured wild animal, call your local animal control officer.
* Avoid attracting rodents or other wild animals near your home by keeping woodpiles off the ground and in sunny areas, fencing off any garden areas, never leaving pet food outside after your pet has eaten and securing all garbage in rodent-proof containers.
* Avoid drinking water that may have been contaminated by wild animals. If you receive your drinking water from a well, be sure it is protected from contamination by wild animals.
* Use gloves, an appropriate respirator and eye protection when skinning or dressing wild animals. Cook wild game thoroughly before eating it and avoid cross-contamination (i.e., hands, utensils and surfaces should be thoroughly washed after handling any raw meats or meat products, and the juices from raw meats should not come into contact with any cooked or ready-to-eat foods).

**Protect your pets:** Cats and dogs can get tularemia if they have contact with an infected animal or are bitten by an infected tick. Pets can become seriously ill and, in rare situations, these pets may spread the infection to people. Keep your pet away from wild animals and check them regularly for ticks. Speak to your veterinarian if your pet shows signs of illness, such as fever, loss of appetite or lethargy.

**If you perform landscaping on Martha’s Vineyard** such as mowing or brush cutting, please see the Public Health Update: Tularemia on Martha’s Vineyard for further advice, at [www.mass.gov/dph/tick](http://www.mass.gov/dph/tick).

**Where can I get more information?**

* **For questions about your own health**, contact your doctor, nurse, or clinic
* **For questions about diseases spread by ticks**, contact the MDPH at (617) 983-6800 or online at [www.mass.gov/dph](http://www.mass.gov/dph)/tick. You may also contact your local Board of Health (listed in the telephone directory under “Government”).
* **Health effects of pesticides,** MDPH, Bureau of Environmental Health at 617-624-5757.
* The Centers for Disease Control and Prevention (CDC) website at [www.bt.cdc.gov/](http://www.bt.cdc.gov/)