



TICKBORNE DISEASES IN MAINE

What are tickborne diseases?

Tickborne diseases are illnesses that can be spread to humans by the bite of an infected tick.

There are four ticks that can be found in Maine that are vectors for disease:

<p>American Dog tick <i>Dermacentor variabilis</i></p>	<p>Blacklegged tick <i>Ixodes scapularis</i></p>	<p>Brown Dog tick <i>Rhipicephalus sanguineus</i></p>	<p>Lone Star tick* <i>Amblyomma americanum</i></p>
<p>Transmit:</p> <ul style="list-style-type: none"> • Rocky Mountain spotted fever • Tularemia 	<p>Transmit:</p> <ul style="list-style-type: none"> • Anaplasmosis • Babesiosis • Ehrlichiosis • Lyme • Powassan virus disease 	<p>Transmit:</p> <ul style="list-style-type: none"> • Rocky Mountain spotted fever 	<p>Transmit:</p> <ul style="list-style-type: none"> • Ehrlichiosis • Heartland virus • STARI • Tularemia

* Typically found in southern Maine.

About Tickborne Diseases in Maine:

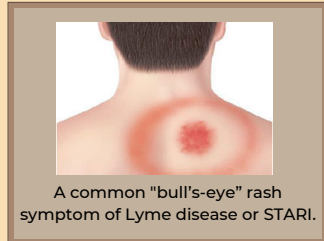
Many tickborne disease early symptoms include flu-like symptoms. Flu-like symptoms include: fever, chills, sweats, headache, body aches, loss of appetite, nausea, or fatigue. *If you are feeling unwell and have been in high risk areas for ticks or have recently been bit by a tick, consult your doctor.*

Lyme Disease

Early symptoms include flu-like symptoms and swollen lymph nodes may occur in the absence of rash. An erythema migrans rash occurs in approximately 70-80% of Lyme disease cases. The rash can be delayed for 3-30 days after the initial tick bite and can reach up to 12 inches in diameter. Some rashes may feel warm to touch but are rarely itchy or painful. Rashes can resemble a "bull's eye" but is not always the case, as rashes can vary widely. If not treated early, symptoms can worsen. Later symptoms can include severe headaches and neck stiffness, dizziness and or shortness of breath, facial palsy (loss of muscle tone or droop on one side or both sides of the face), arthritis, particularly in the knees and other large joints, Lyme carditis (heart palpitations or an irregular heart beat), and memory problems.

Southern Tick Associated Rash Illness (STARI)

A common symptom of STARI is fatigue. While the saliva from lone star ticks can be irritating, the redness and discomfort at a bite site does not necessarily indicate an infection. STARI can often resemble early Lyme disease. The rash of STARI is red, expanding "bull's-eye" lesion that develops around the site of a lone star tick bite. The rash usually appears within 7 days of a tick bite and expands to a diameter of 3 inches or more. The rash should not be confused with much smaller areas of redness and discomfort that can occur commonly at the site of any tick bite.





Babesiosis

Many people infected with *Babesia microti* do not have any symptoms, while others develop flu-like symptoms. Babesiosis can cause a special type of anemia called hemolytic anemia and cause jaundice (yellowing of skin) and dark urine. Risk factors for severe illness include not having a spleen, are elderly, or have a weakened immune system. Complications from Babesiosis can include low and unstable blood pressure, severe hemolytic anemia, very low platelet count, blood clots and bleeding, organ failure, or death.

Powassan virus disease

Many people infected with Powassan virus do not have any symptoms. For people that develop symptoms, it can take one week to one month after an infected tick bite to develop initial, flu-like symptoms. Powassan virus can cause severe disease with symptoms like confusion, loss of coordination, difficulty speaking, and seizures.

Anaplasmosis and Ehrlichiosis

There is a delay of 1-2 weeks of signs and symptoms to develop after the bite of an infected tick. Many patients do not remember being bitten because tick bites are typically painless. Early symptoms are flu-like. If early treatment is not provided or other medical conditions are present can cause severe illness. Risk factors for severe illness include delayed treatment, are elderly, or have a weakened immune system. Late stage illness can include respiratory failure, bleeding problems, organ failure, and death.

Heartland virus

Most infected people will experience flu-like symptoms that can result in hospitalization. Symptoms can take up to two weeks to develop. Some infected people have a lower white blood cell and platelet count. Symptoms are often similar to ehrlichiosis or anaplasmosis.

Rocky Mountain spotted fever (RMSF)

Can be deadly if not treated early. Early symptoms are flu-like. Usually patients develop a rash 2-4 days after fever begins. Rashes tend to vary in appears through course of illness. Long term health problems do not include chronic or persistent infections, however some patients who recover from sever RMSF may be left with permanent damage from acute illness. This can include amputation, hearing loss, paralysis, or mental disability.

Tularemia

The signs and symptoms of tularemia vary depending on how the bacteria enter the body. Illness ranges from mild to life-threatening. All forms are accompanied by fever, which can be as high as 104 °F. Some forms of this disease that are tickborne include:

- **Ulceroglandular:** This is the most common form of tularemia and usually occurs following a tick or deer fly bite or after handling of an infected animal. A skin ulcer appears at the site where the bacteria entered the body. The ulcer is accompanied by swelling of regional lymph glands, usually in the armpit or groin.
- **Glandular:** Similar to ulceroglandular tularemia but without an ulcer. Also generally acquired through the bite of an infected tick or deer fly or from handling sick or dead animals.

Tick exposure can occur year-round, but ticks are most active during warmer months (April-September).



For more information, check out Natural Resources Wildlife Disease Information at penobscotnation.org