

Tick Borne Illnesses in Washington State

**What ticks and illnesses could we find
in Washington?**

**How can we limit our exposure to
these diseases?**

What can we do if exposed?

Where can we find more information?

What ticks and illnesses could we find in Washington?



Ixodes pacificus – western black legged tick: can transmit Lyme Disease and Babesiosis; thought to be a possible vector for Anaplasmosis; found in forested or brushy areas of western Washington.

Ornithodoros hermsi – a soft tick (very small): can transmit Tick-borne Relapsing Fever; generally found in association with rodent and bird nests.



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Dermacentor andersoni – rocky mountain wood tick: can transmit Rocky Mountain Spotted Fever and Tularemia; found in forested and brushy areas throughout the state.

Dermacentor variabilis – american dog tick: can transmit Rocky Mountain Spotted Fever and Tularemia; found in forested and brushy areas throughout the state.



What ticks and illnesses could we find in Washington?

- **Lyme Disease (rare):** Few cases are reported in Washington; transmitted through the western black legged tick (*Ixodes pacificus*); found in forested or brushy areas of western Washington. Usually presents an expanding circular rash (often in a “bulls eye” shape). Fever, chills, muscle aches and joint pain may also occur: serious if untreated.
- **Tick-borne Relapsing Fever:** Transmitted by the soft tick (*Ornithodoros hermsi*) from infected rodents in nearby areas; most cases occurring in rural eastern Washington. Patients experience recurrent episodes of fever lasting 2-7 days, with 4-14 days between expisodes.
- **Rocky Mountain Spotted Fever (rare):** Few cases are reported in Washington; transmitted through the american dog tick (*Dermacentor variabilis*) or the rocky mountain wood tick (*Dermacentor andersoni*); found in forested and brushy areas throughout the state. Initial symptoms of Rocky Mountain spotted fever may include fever, nausea, vomiting, muscle pain, lack of appetite, and severe headache. A rash generally, but not always, appears a few days later. Abdominal pain, joint pain, and diarrhea can also occur.

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- **Tick Paralysis (rare):** Caused by a neurotoxin transmitted by an attached tick (stopped by removing the tick); transmitted by a variety of ticks found in forested or brushy areas. Presents as progressive paralysis, and can be fatal within 24 -48 hours of onset if tick is not removed.
- **Tularemia:** Transmitted through the american dog tick (*Dermacentor variabilis*) or the rocky mountain wood tick (*Dermacentor andersoni*); found in forested and brushy areas throughout the state. Symptoms can include sudden fever, headache, swollen lymph nodes, and a skin ulcer near the bite.
- **Anaplasmosis (no human cases reported in Washington):** Bacteria can be carried by the western black legged tick (*Ixodes pacificus*); found in forested or brushy areas of western Washington. Symptoms can include headache, fever, chills and muscle aches.

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- **Babesiosis (extremely rare):** Could be carried by the western black legged tick (*Ixodes pacificus*); found in forested or brushy areas of western Washington. Symptoms include fever, chills, fatigue, muscle pain, and anemia.
- The following charts provide more information/help identifying ticks: the CDC http://www.cdc.gov/ticks/geographic_distribution.html (identification and distribution), and the Tick Encounter Resource Center identification site: http://www.tickencounter.org/tick_identification
- Ticks can also be sent to the state Department of Health for identification using the following form: <http://www.doh.wa.gov/Portals/1/Documents/Pubs/333-179.pdf>
- Medical professionals can send ticks for tests to confirm the presence of certain tick borne illnesses if appropriate and the tick is available.

How can we limit our exposure to these diseases?

- Wear tick-resistant clothing, including long sleeves, long pants tucked into socks and tall rubber boots where appropriate: light colors make ticks easier to spot. Note that the nymph and larvae stage ticks are small and difficult to see, and are typically active and feeding in the spring and summer.
- Use an insect repellent containing DEET, also consider the use of clothing treated with the insecticide permethrin. Note: some people are sensitive to the aforementioned chemicals, and concentrated DEET can damage many modern clothes made of polymeric fibers.
- Shower or bathe as soon as possible after being in tick habitat in order to wash off and find any ticks that are on your body: remember to check and wash your clothing too.

How can we limit our exposure to these diseases?

- Limit time in the field in the Spring, Summer and Autumn in areas known to, or likely to, have ticks present.
- Perform regular tick checks, including clothing and entire body after working in areas known to, or likely to, have ticks present. Remove ticks before they start feeding, and remove them correctly and expeditiously if attached. Remember to check your pets as well: we love our pets and don't want them to become a disease vector in our lives, nor to get sick themselves!
- Eliminate tick habitat around your home and work space: remove organic debris, brush, trees and other suitable habitat for ticks and animals such as deer and rodents that host and transport ticks and tick borne illnesses.

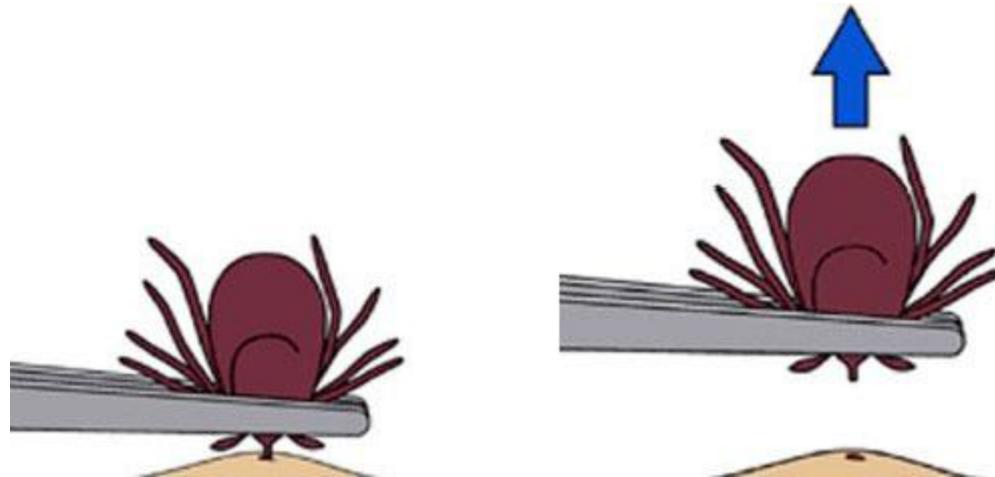
What can we do if exposed?

- Properly remove embedded ticks promptly: there is a significant correlation between length of feeding time and risk of contracting some tick borne illnesses.
- Monitor yourself for symptoms of tick borne illnesses and seek prompt medical attention if merited. Be proactive with the medical staff: tick borne illness is not as common in Washington as other areas, as such, local medical staff may not be as familiar with the exposure risks and symptoms as staff in other areas of the country. Consider saving or preserving ticks removed for testing, and documenting symptoms with photos and notes including dates/times.

What can we do if exposed?

Remove ticks using the following CDC recommended method:

- Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
- Pull upward with steady, even pressure. Don't twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers. If you are unable to remove the mouth easily with clean tweezers, leave it alone and let the skin heal.
- After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol, an iodine scrub, or soap and water.
- Dispose of a live tick by submersing it in alcohol, placing it in a sealed bag/container, wrapping it tightly in tape, or flushing it down the toilet. Never crush a tick with your fingers.



Where can we find more information?

- Washington State Department of Health:
<http://www.doh.wa.gov/communityandenvironment/pests/ticks>
- Centers for Disease Control and Prevention:
<http://www.cdc.gov/ticks/>
http://www.cdc.gov/ticks/geographic_distribution.html
(identification and distribution)
<http://www.cdc.gov/ticks/resources/Hunterfactsheet.pdf> (tick awareness flyer)
- University of Rhode Island Tick Encounter Resource Center identification site:
http://www.tickencounter.org/tick_identification
- EPA Insect repellent search form: <https://www.epa.gov/insect-repellents/find-insect-repellent-right-you>