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What is babesiosis?

Babesiosis is a disease caused by a very small (microscopic) parasite that infects red blood cells.

Who gets babesiosis?

In the United States, most cases of babesiosis occur in the Northeast (Massachusetts, Connecticut, Rhode Island, New York, and New Jersey) and the upper Midwest (Wisconsin and Minnesota). A small number of cases have been reported in other adjacent states. To date, only one locally transmitted case of babesiosis has been identified in Virginia. Most babesiosis cases seen in non-endemic states have been associated with patients having traveled to states where babesiosis is commonly known to occur. In the northeastern and north central United States, all babesiosis illnesses are caused by *Babesia microti*. In Northern California and Oregon, babesiosis may also be caused by *Babesia duncani*, but illnesses caused by this particular parasite are rare.

How is babesiosis spread?

Babesia parasites are spread by the bite of infected *Ixodes scapularis* ticks, more commonly known as blacklegged or deer ticks. Most transmission is by the young nymph stage ticks, which are tiny (i.e., the size of a poppy seed). The infected tick usually has to be attached to a person for 24 to 36 hours before it can transmit the parasite. Because this parasite is present within red blood cells of infected people, it can also be spread to people by blood transfusions from infected blood donors. Most cases occur in the spring and early summer when the tiny nymph-stage ticks are actively feeding.

What are the symptoms of babesiosis?

Many people who are infected do not develop any symptoms, but some might have a mild, flu-like illness characterized by fever, chills, headache, muscle or body aches, fatigue, nausea, vomiting, abdominal pain, and dark urine. Older persons, persons who lack a spleen, and those with weakened immune systems are more likely to develop severe or potentially life-threatening complications from a babesiosis infection.

How soon after exposure do symptoms appear?

Symptoms, if present, may appear anywhere from several weeks to several months after exposure, but usually appear within one to three weeks after exposure.

How is babesiosis diagnosed?

Babesiosis is diagnosed by examination of blood under a microscope. Several blood specimens may need to be examined to detect low levels of the parasite. Patient blood can also be tested by PCR to

detect the DNA of the Babesia agent. Patients can also be tested for IgG antibody in their blood after developing an illness.

What is the treatment for babesiosis?

Doctors usually prescribe multiple antiparasitic drugs to treat people who are ill with babesiosis.

How can babesiosis be prevented?

The best way to reduce the risk for babesiosis and other tickborne infections is to avoid tick habitats, such as leaf litter, tall grass and vegetation along shaded forest edges and tree lines. If you do spend time outdoors in such tick habitats, including your backyard, take precautions to keep ticks off the skin. Walk on cleared trails, and stay in the center of the trail to avoid contact with leaf litter or low vegetation. If you visit potential tick habitats, a highly effective tick prevention method is to wear long pants, socks and shoes or boots that have been treated with a Permethrin based clothing treatment; pants legs should be tucked into socks and/or into boots. Wear light-colored clothing so that ticks are easier to see and remove. If wearing shorts, apply tick repellent containing DEET, oil of lemon eucalyptus or picaridin on your skin around your knees and around your elbows. Conduct tick checks on yourself, your children, and your pets after spending time in an area likely to have ticks.

How do I perform a tick check?

After being outdoors, in forested habitats, search your entire body for ticks. Blacklegged tick nymphs are about the size of a poppy seed, and adult blacklegged ticks are about the size of a sesame seed. When checking your body, remember that ticks like places that are warm and moist. Be sure to check the armpits, groin, scalp, in and around the ears, and around the waist. Remember to check yourself, your children, and your pets for ticks. For more information about performing tick checks, see [the CDC's page on Lyme disease](#).

What should I do if I find a tick attached to the skin?

Remove attached ticks as soon as possible by grabbing the tick with firm, pointed (fine-tipped) tweezers as close to the skin as possible and pulling the tick straight out by applying steady outward pressure. After removing the tick, thoroughly wash the wound site and your hands. If the tick has been attached for less than 24-36 hours, the risk of getting babesiosis is minimal.

How can I get more information about babesiosis?

- If you have concerns about babesiosis, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at the [VDH Local Health Districts page](#).
- Visit the Centers for Disease Control and Prevention website at [the CDC's page on babesiosis](#).

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