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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?

People who engage in outdoor activities where ticks are typically found (wooded, brushy, or grassy areas) in areas where babesiosis is found are at higher risk for infection. New England and upper Midwest areas of the United States report the most cases of babesiosis.

Within the last decade, the disease has expanded into other areas including Maryland, West Virginia, and Virginia. In Virginia, the Eastern Shore has reported the greatest number of cases. Most cases seen in Virginia are associated with patients traveling to states where babesiosis is more common 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*. A third species, MO-1, is very rare and has only been found in Missouri.

How is babesiosis spread?

Babesia parasites are spread by the bite of infected *Ixodes scapularis* ticks, more commonly known as blacklegged ticks. Most infection is spread by the young nymph stage ticks, which are tiny (i.e., the size of a poppy seed). Most cases occur in the spring and early summer when the tiny nymph-stage ticks are actively feeding. Because this parasite gets into red blood cells of infected people, it can also be spread to people by blood transfusions and organ donation.

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 and develop fever, chills, headache, muscle or body aches, fatigue, nausea, jaundice (yellowing of skin) and dark urine. Older persons, persons who do not have a spleen, and those with weak immune systems are more likely to develop severe or life-threatening illness from a babesiosis infection. Severe infection presents with symptoms such as anemia, low platelets, organ damage, and death. Many people with babesiosis can also be infected with other tickborne illness such as Lyme disease or anaplasmosis.

How soon after exposure do symptoms appear?

Symptoms, if present, usually appear within one to four weeks after exposure.

How is babesiosis diagnosed?

Babesiosis can be 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 to detect the DNA of the Babesia parasite. Patients can also be tested for antibodies in their blood after developing an illness.

What is the treatment for babesiosis?

You usually do not need treatment if you have no symptoms or signs of babesiosis. Doctors usually prescribe a combination of antiparasitic and antibacterial 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 way to prevent tick bites is to wear long pants, socks and shoes or boots that have been treated with a Permethrin and tucking pant legs 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 tick 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 Preventing Tick Bites at [cdc.gov/ticks/prevention/index.html](https://www.cdc.gov/ticks/prevention/index.html).

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. More information about tick removal and identification can be found on the VDH Ticks page at [vdh.virginia.gov/ticks/](https://www.vdh.virginia.gov/ticks/).

How can I get more information about babesiosis?

- If you have concerns about babesiosis, contact your healthcare provider.
- Call your local health department. Find your local health department at [vdh.virginia.gov/local-](https://www.vdh.virginia.gov/local/)

[health-districts/](#).

- Visit the VDH Ticks page at vdh.virginia.gov/ticks/.
- Visit the CDC's page on babesiosis at cdc.gov/babesiosis/about/index.html.

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External link will open in new window. Click link to exit Virginia Department of Health Website.