

Babesiosis Fact Sheet

1. **What is Babesiosis?** - Babesiosis is caused by microscopic parasites that infect red blood cells. *Babesia microti* infects white-footed mice and other small mammals and is transmitted from this reservoir to people by infected black-legged ticks (*Ixodes scapularis*).

2. **Where does Babesia infection occur in Pennsylvania?** - Babesiosis is acquired in areas endemic to infected ticks. The black-legged tick is found throughout the Commonwealth in wooded or brushy areas, on the edge of hiking or animal trails, or the edge of a lawn where it meets a wooded or brushy area. Deer are the hosts upon which the adult black-legged ticks feed prior to laying their eggs on the ground. Therefore when deer populations increase, the tick population also increases, thus heightening the potential for disease transmission.

3. **What are the signs and symptoms of Babesiosis infection?** - For some infected with *Babesia* parasites, they feel no discomfort. Others develop flu like illness, including but not limited to, fever, chills, sweats, headache, body aches, loss of appetite, nausea or fatigue. When *Babesia* parasites infect and destroy red blood cells, the manifestation can result in anemia, jaundice, and dark urine. Symptomatic individuals should seek medical care. Individuals most at risk of serious illness as a result of babesiosis infection include: people who not have a spleen, people who have a weakened immune system, people with other serious health conditions, and the elderly.

4. **Can Babesiosis produce disease in animals?** – Yes. The severity of illness in animals infected with *Babesia* parasites is related to their overall health and immune system response. Babesiosis infected animals may be asymptomatic or they may develop a slight fever, be lethargic and develop anemia.

5. **How is Babesiosis diagnosed in people who have symptoms of the infection?** - In symptomatic people, Babesiosis usually is diagnosed by examining blood under a microscope.

6. **Can Babesiosis be treated?** - Antibiotic therapy often results in rapid improvement. People who do not have symptoms or signs of Babesiosis usually do not need treatment.

7. **What precautions should hikers, homeowners, hunters, park visitors, etc. take?**

a. Avoid possible tick habitats during the peak time of year, late March – mid-October.

- b. Wear tick repellent that contains Permethrin, or DEET.
- c. Wear long-sleeved shirts, long pants, and closed-toed shoes and tuck pant legs into top of socks or boots.
- d. Wear light-colored clothes to make it easier to spot ticks.
- e. Check for ticks frequently and remove them promptly.
- f. Showering within two hours of coming indoors has been shown to reduce your risk of being bitten by a tick.
- g. Hands should not be used to remove ticks, due to the risk of exposure to the tick's fluids or feces. If gloves are not available, the fingers should be shielded with a tissue or paper towel. The tick should not be squeezed, crushed or punctured.
- h. The Centers for Disease Control and Prevention (CDC) warns that tick removal techniques such as the use of hot matches or petroleum jelly may stimulate the tick to release additional saliva and could increase the risk of infection. Tick bites should be thoroughly disinfected after removal of the tick, and the hands should be washed with soap and water. The removed tick should be frozen in a plastic bag, for identification in case of subsequent illness.
- i. Since there are several topical medications available for both dogs and cats, which are applied monthly, that will kill and/or repel fleas and ticks, pet owners should consult with their veterinarian to select the best medication for their needs.

8. For more information about Babesiosis:

<http://www.cdc.gov/parasites/babesiosis/>

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.

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