

Babesiosis

What is babesiosis?

Babesiosis is a disease caused by a microscopic parasite (a type of germ similar to those that cause malaria) that infects red blood cells.

Where do cases of babesiosis occur?

Babesiosis occurs in many areas in the northeastern United States. In Massachusetts, the disease occurs most frequently in coastal areas like the South Coast, the South Shore, Cape Cod, and the islands of Martha's Vineyard and Nantucket. Despite a higher occurrence of disease in certain areas of Massachusetts, it is found everywhere in the state.

How is babesiosis spread?

Babesiosis is spread by the bite of an infected black-legged (deer) tick. The longer a tick remains attached and feeding, the higher the likelihood that it may spread the parasite. The tick must generally be attached to a person for at least 24-36 hours before it can spread the germ. Black-legged ticks in Massachusetts can also carry the germs that cause Lyme disease and human granulocytic anaplasmosis. These ticks are capable of spreading more than one type of germ in a single bite.

When can I get babesiosis?

Babesiosis can occur during any time of the year. The parasite that causes babesiosis is spread by infected black-legged ticks. Young ticks (nymphs) are most active during the warm weather months between May and July. Adult ticks are most active during the fall and spring but may also be out searching for a host any time that winter temperatures are above freezing.

How soon do symptoms of babesiosis appear after a tick bite?

Symptoms of babesiosis usually begin to appear from 1 to 8 weeks after being bitten by an infected tick.

What are the symptoms of babesiosis?

Most people who are infected by the parasite will show very mild signs of illness or no signs at all. If symptoms occur, they may include fever, chills, headache, achy joints and muscles, fatigue, nausea, vomiting, abdominal pain and dark urine. Symptoms can last for up to several months. The elderly, people without a healthy spleen, and people with weakened immune systems are more likely to develop potentially life-threatening symptoms.

Is there treatment for babesiosis?

Babesiosis can be treated with medication; however, serious complications requiring a blood transfusion and/or kidney dialysis can occur if the disease is not recognized and treated early.

What can I do to lower my chances of getting babesiosis, or any other disease, from ticks?

Prevention begins with you! Take steps to reduce your chances of being bitten by any tick. Ticks are most active during warm weather, generally late spring through fall. However, ticks can be out any time that temperatures are above freezing. Ticks cling to vegetation and are most numerous in brushy, wooded or grassy habitats. They are not found on open, sandy beaches, but may be found in grassy



dune areas. When you are outside in an area likely to have ticks (e.g. brushy, wooded or grassy places), follow these simple steps to protect yourself and your loved ones:

- Use a repellent with **DEET** (the chemical N-N-diethyl-meta-toluamide) or **permethrin** according to the instructions given on the product label. DEET products should not be used on infants under two months of age and should be used in concentrations of 30% or less on older children. Permethrin products are intended for use on items such as clothing, shoes, bed nets and camping gear, and should not be applied to skin. Other repellents, such as picaridin, oil of lemon eucalyptus and IR 3535, have also been found to provide protection against ticks. More information on choosing a repellent and how to use repellents safely is included in the MDPH Public Health Fact Sheet on Tick Repellents at <http://www.mass.gov/dph/tick>.
- Wear long, light-colored pants tucked into your socks or boots, and a long-sleeved shirt. This may be difficult to do when the weather is hot, but it will help keep ticks away from your skin and help you spot a tick on your clothing faster.
- Stay on cleared trails when walking or hiking, avoiding the edge habitat where ticks are likely to be.
- Talk to your veterinarian about tick control options (tick collars, repellents) for your pets.

After spending time in an area likely to have ticks, check yourself, your children and pets for ticks.

Young ticks, called nymphs, are the size of a poppy seed. Adult black-legged ticks are the size of a sesame seed. Both nymph and adult ticks can spread the parasite that causes babesiosis; however, nymphs are more of a concern. They are aggressive feeders and so tiny that it can be difficult to see them on the body, unless you are looking carefully. When doing a tick check, remember that ticks like places that are warm and moist. Always check the back of the knees, armpits, groin, scalp, back of the neck and behind the ears. If you find a tick attached to your body, remove it as soon as possible using fine-point tweezers. Do not squeeze or twist the tick's body, but grasp it close to your skin and pull straight out with steady pressure.

Know the symptoms of babesiosis as described in this fact sheet. If you have been someplace likely to have ticks and you develop symptoms of any disease carried by ticks, see your health care provider right away.

Where can I get more information?

- **For questions about your own health**, contact your doctor, nurse, or clinic
- **For questions about diseases spread by ticks**, contact the MDPH at (617) 983-6800 or online at www.mass.gov/dph/tick. You may also contact your local Board of Health (listed in the telephone directory under "Government").
- **Health effects of pesticides**, MDPH, Bureau of Environmental Health at 617-624-5757.



Massachusetts Department of Public Health Tick-borne Disease Website



<http://www.mass.gov/dph/tick>

