

### What is Babesiosis?

Babesiosis is a disease caused by tiny parasites that infect red blood cells. Many different species (types) of *Babesia* parasites have been found in animals, only a few of which have been found in people. *Babesia microti*—which usually infects white-footed mice and other small mammals—is the main species that has been found in people in the United States. Occasional cases caused by other *Babesia* species have been detected.

### How is Babesiosis spread?

The main way is through the bite of an infected tick.

- *Babesia microti* is spread by blacklegged ticks or deer ticks. (Although white-tailed deer are the most important food source for the adult stage of the tick, deer are not infected with *B. microti*.)
- The parasite typically is spread by the young nymph stage of the tick. Nymphs are mostly found during warm months (spring and summer) in areas with woods, brush, or grass.
- Infected people might not recall a tick bite because the nymphs are very small (about the size of a poppy seed).

Other possible ways of becoming infected with *Babesia* include:

- receipt of a contaminated blood transfusion (no tests have been licensed yet for donor screening); or
- transmission from an infected mother to her baby during pregnancy or delivery.

### What are the signs and symptoms of Babesiosis?

Many people who are infected with *Babesia microti* feel fine and do not have any symptoms. Some people develop flu-like symptoms, such as fever, chills, sweats, headache, body aches, loss of appetite, nausea, or fatigue. Because *Babesia* parasites infect red blood cells, Babesiosis can cause hemolytic anemia (from the destruction of red blood cells).

### How long after infection do symptoms appear?

Symptoms, if any, can start within a week or so. They usually develop within a few weeks or months, sometimes longer.

### Who is most at risk?

Babesiosis can be a severe, life-threatening disease, particularly in people who:

- do not have a spleen;
- have a weak immune system for other reasons (such as cancer, lymphoma, or AIDS);
- have other serious health conditions (such as liver or kidney disease); or
- are elderly.

### What type of health problems are caused by Babesiosis?

Complications can include:

- a low and unstable blood pressure;
- severe hemolytic anemia (hemolysis);
- a very low platelet count;
- disseminated intravascular coagulation (also known as “DIC” or consumptive coagulopathy), which can lead to blood clots and bleeding;

- malfunction of vital organs (such as the kidneys, lungs, and liver); or
- death.

### How is Babesiosis diagnosed?

In symptomatic people, Babesiosis usually is diagnosed by examining blood under a microscope and seeing *Babesia* parasites inside red blood cells. To be sure the diagnosis is correct, your healthcare provider might have specimens of your blood tested by a specialized reference laboratory (such as the Centers for Disease Control & Prevention [CDC] or a health department). In addition, your healthcare provider might decide to have your blood tested for other possible causes of your symptoms, including other tickborne infections, such as Lyme disease and Anaplasmosis.

### How is Babesiosis treated?

Effective treatments are available. People who do not have symptoms or signs of Babesiosis usually do not need to be treated. Healthcare providers may talk with CDC staff about whether an infected person should be treated, what type of therapy to use, and how long to treat. The first step is to make sure the diagnosis is correct.

### How can Babesiosis be prevented?

People can take steps to prevent Babesiosis and other tickborne infections. The use of prevention measures is particularly important

for people at increased risk for severe Babesiosis (for example, people who do not have a spleen).

If possible, areas infested with ticks should be avoided, especially during warm months. If such areas cannot be avoided, use protective measures during outdoor activities, such as checking yourself daily for ticks and wearing protective clothing to cover exposed areas of your body.

The tiny ticks that spread *B. microti* usually must stay attached to a person for more than 36-48 hours to be able to transmit the parasite. Daily tick checks can prevent disease transmission.

No vaccine is available to protect people against babesiosis.

### Where can I get more information?

- Your personal healthcare provider
- Utah Department of Health, Bureau of Epidemiology – 801-538-6191
- [Centers for Disease Control & Prevention](https://www.cdc.gov)

