



# Babesiosis

## What is Babesiosis?

Babesiosis is a rare but severe tick-borne disease caused by various types *Babesia* parasites that infect red blood cells.

## Where has this disease been found?

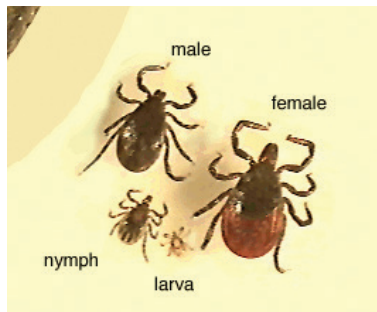
With the parasite being found worldwide, Babesiosis has been found scattered throughout much of the world including North America, Europe, Asia and Africa.

## How is the parasite transmitted?

*Babesia* are transmitted through the bite of an infected tick.

It is also possible for transmission to occur from an infected mother to her baby during pregnancy or delivery.

Deer ticks are capable of carrying and transmitting *Babesia* parasites.



## What are the symptoms of Babesiosis?

Many persons infected with *Babesia* will not show any symptoms and feel fine. 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 destruction of red blood cells).

## When do symptoms appear?

Symptoms of *Babesiosis* can appear anywhere from 1 to 9 weeks following infection. Tickborne infections of *Babesia* parasites usually take 1 to 3 weeks or longer to develop symptoms while bloodborne infections range from weeks to months.

## How is Babesiosis diagnosed?

Blood tests are available to diagnose *Babesiosis* however multiple blood smears may be required in order to detect low levels of parasites.

## What is the treatment?

Before considering treatment, the first step is to make sure the diagnosis is correct. People who do not display symptoms or signs of *Babesiosis* usually do not need to be treated. Those that present symptoms often respond well to treatment.

Treatment decisions should be individualized, especially for patients who have (or are at risk for) severe or relapsing infection.

For ill patients, *babesiosis* usually is treated for at least 7-10 days with a combination of two prescription medications

## How can I prevent being exposed to Babesiosis?

The best method to avoid acquiring Babesiosis is to avoid being bitten by a tick.

### For yourself:

- Don't walk barelegged in tall grass, wooded areas or marshlands.
- Try to stay in the centre of a cleared trail to avoid contact with overgrown grass, brush, and leaf litter.
- Wear long sleeves, slacks and fully-closed boots or shoes when walking in grassy or wooded areas.
- Tuck your pant legs into your socks.
- Conduct a "tick check" on yourself, your family and your pets after exposure to tick habitat.
- Wear light-coloured clothing to make the ticks easier to find.
- Insect repellents containing DEET (N,N-diethyl-meta-toluamide) are useful and can be sprayed onto clothing, especially pants and socks. Please read the label when using any repellents, in particular when using them on young children. For safety tips on using personal insect repellents containing DEET, visit the following website: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca) and search "insect repellents."

**For your pets:**

- Check your pets for ticks daily, especially after they spend time outdoors..
- If you find a tick on your pet, remove it right away.
- Ask your veterinarian to conduct a tick check at each exam.
- Talk to your veterinarian about tickborne diseases in your area.
- Reduce tick habitat in your yard.
- Talk with your veterinarian about using tick preventive products on your pet.

**For your yard:**

- Remove ideal tick habitat from your property, such as brush and leaf litter.
- Keep your lawn short (<16cm).
- Place a 3-ft wide barrier of wood chips or gravel between lawns and wooded areas and around patios and play equipment. This will restrict tick migration into recreational areas.
- Keep tables, swing sets, play equipment, etc. away from woods, shrubs and tall grass. Place in a sunny location, if possible.
- Remove possible rodent habitats around your property (e.g. stack wood neatly in dry areas away from house).

**Tick Removal**

- Prompt removal of ticks from your skin will help prevent infection, since transmission of the disease agent
- Using fine-tipped tweezers, carefully grasp the tick as close to your skin as possible. Pull it straight out, gently but firmly.
- Don't squeeze it. Squeezing the tick can cause the disease agent to be accidentally introduced into your body.
- Don't put anything on the tick, or try to burn the tick off.
- Thoroughly cleanse the bite site with rubbing alcohol and/or soap and water.

**Tick Identification**

- After the tick has been removed, place it in screw-top bottle (e.g. pill vial), and take it to your doctor. They can send it to the Ontario Public Health Laboratory for identification.
- Establishing the type of tick may help to assess your risk.
- It is important to remember where you most likely acquired the tick.



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