

Babesia microti

B. microti

B. microti is a risk group 2 laboratory parasite. It is considered a **reproductive pathogen** as it can be asymptomatic in the mother, but cause severe malaria-like symptoms, anemia, and thrombocytopenia (low blood platelet count) in the fetus or newborn.

How can I be exposed to *B. microti*?

- Exposure is primarily via infected deer ticks (*Ixodes scapularis*).
- Human infection can occur via blood transfusion and organ transplantation although it is rare.
- Mother to child transmission can occur during pregnancy or birth.
- Laboratory workers may be exposed primarily by parenteral inoculation or exposure to infected blood and tissues.

How can I protect myself from exposure?

- Avoid direct skin contact by wearing protective clothing and gloves.
- Avoid mucous membrane exposure by using eye/face protection for procedures that may produce splashes.
- Avoid respiratory exposure by using a biosafety cabinet or other primary containment device and wearing a respirator for procedures that may produce aerosols, particularly centrifugation, resuspension of pellets, and washing.
- The use of needles, syringes, and other sharp objects should be strictly limited, and additional precautions should be taken when working with animals.

What should I do if I think I've been exposed?

Wash the affected area immediately for 15 minutes with soap and water and seek medical attention.

What symptoms should I look for after a potential exposure?

Typical symptoms include flu-like symptoms, including fever, chills, sweats, headache, and fatigue. In high-risk individuals (older adults, asplenic, or immunocompromised), it can lead to severe hemolytic anemia, jaundice, organ failure, and death.

How long does it take for symptoms to develop?

Symptoms usually develop within 1-4 weeks after exposure but can be as long as 9 weeks or more.

Is there a treatment or vaccine?

There is currently no vaccine for *B. microti*. Antiparasitic and antibiotic treatments are the most common first-line therapy.

Can I transmit it to other people?

It is possible to transmit *B. microti* via blood transfusion, organ transplant, and vertical transmission.

Can I transmit it to my pets?

No, humans are dead-end hosts.

Can it survive on surfaces?

B. microti relies on human blood/plasma or a tick vector to survive. It is not stable in the environment.

See the CDC Public Health website for More Information

