



Indiana State
Department of Health
Epidemiology Resource Center

EHRlichiosis QUICK FACTS

Ehrlichiosis is the general name used to describe diseases caused by the bacteria *Ehrlichia chaffeensis*, *E. ewingii*, or *E. muris eauclairensis* in the United States. The majority of reported cases are due to infection by *E. chaffeensis*. Please visit the ISDH Ehrlichiosis page for more information (<https://www.in.gov/isdh/28028.htm>).

TRANSMISSION

E. chaffeensis and *E. ewingii* are transmitted in Indiana by the bite of infected lone star ticks (*Amblyomma americanum*). The bacteria *E. muris eauclairensis* is transmitted by the bite of infected blacklegged ticks (*Ixodes scapularis*). Human infections with *E. muris eauclairensis* have only been found in Wisconsin and Minnesota. Rarely, *Ehrlichia* species have been spread through blood transfusions and organ transplants.

SIGNS AND SYMPTOMS

Signs and symptoms of ehrlichiosis usually appear within 1–2 weeks after the bite of an infected tick. People in the early stages of illness can experience flu-like symptoms, such as:

- Fever and chills
- Severe headache
- Muscle aches
- Nausea, vomiting, diarrhea, or loss of appetite
- Confusion
- Rash (more common in children)

Untreated ehrlichiosis can rapidly progress to a serious and life-threatening illness. Older people and those with weakened immune systems are more likely to develop serious illness.

DIAGNOSIS

Diagnosis of ehrlichiosis is based upon the patient's signs and symptoms, a history of possible exposure to ticks, and appropriate laboratory testing. Early recognition of symptoms is important for prompt diagnosis and treatment. If you think you have ehrlichiosis, contact your healthcare provider right away.

People who have removed an attached tick sometimes wonder if they should have it tested for tick-borne diseases. Although some laboratories offer this testing, ISDH does not recommend it. If the tick tests positive, it does not necessarily mean that you have been infected; if the tick



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tests negative, it may provide a false sense of security because you may have been unknowingly bitten by a different tick that was infected.

TREATMENT

Doxycycline is the treatment of choice for adults and children of all ages with suspected ehrlichiosis. Doxycycline is most effective at preventing severe complications and death if it is started early in the course of illness. Treatment should be started for anyone with suspected ehrlichiosis and should never be delayed while waiting for laboratory results.

PREVENTION

The best way to prevent ehrlichiosis is to avoid tick bites. Please see our tick prevention page (<https://www.in.gov/isdh/20491.htm>) for more information.

For more information about ehrlichiosis, please visit the CDC ehrlichiosis webpage (<https://www.cdc.gov/ehrlichiosis/index.html>).

STATISTICS

Due to the close relationship between the bacteria, cases of anaplasmosis and ehrlichiosis are currently reported together in Indiana. For ehrlichiosis statistics in Indiana, please visit our ehrlichiosis and anaplasmosis statistics page (<https://www.in.gov/isdh/28029.htm>).

National statistics for ehrlichiosis can be found at the CDC Epidemiology and Statistics webpage (<https://www.cdc.gov/ehrlichiosis/stats/index.html>).

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