

**Ehrlichiosis**

**Definition:**

Ehrlichiosis is an infection caused by bacteria in the genus *Ehrlichia*. These bacteria are most commonly transmitted by the bite of an infected lone star tick (*Amblyomma americanum*).

**Signs and symptoms:**

Symptoms of ehrlichiosis can range from mild to very severe and may include: fever, headache, chills, malaise, muscle pain, nausea/vomiting/diarrhea, confusion, and rash (in up to 60% of children). Severe symptoms may include: difficulty breathing and bleeding disorders. It can be fatal if not treated correctly. People who are immunocompromised or elderly are more at risk for severe disease.

**Transmission:**

Ehrlichiosis is primarily transmitted to a person through the bite of an infected lone star tick. This tick is infrequently found in the state of Maine, but is common in the southeastern and south-central United States. Rarely, it can be transmitted by receiving blood transfusions from an infected donor.

**Diagnosis:**

Ehrlichiosis is diagnosed by clinical symptoms and laboratory tests. A blood test is necessary for confirmation. Co-infections with other tick-borne diseases may occur and should be considered.

**Role of the School Nurse:**

**Prevention**

* Provide education on prevention efforts including: wearing protective clothing, using an EPA-approved repellent, using caution in tick infested areas, and performing daily tick checks.
* Encourage the use of EPA-approved repellents when outside (following local policy guidelines), and always performing a tick check when returning indoors.
  + School nurses can apply repellent with parental permission
* If a tick is found, the school nurse should remove the tick using tweezers or a tick spoon.
  + Tick identification cards are available at: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/posters/index.shtml>.
  + Testing of the tick is not recommended. Whole ticks in safe containers may be given to parents.

**Treatment Recommendations**

* If symptoms are noted, the child should be referred to their primary care provider for treatment.
* Antibiotic treatments are available and are usually prescribed for at least 5 - 7 days.

**Exclusions**

* There is no need to exclude students from school for ehrlichiosis.
* Educational modifications may be warranted in children with a positive diagnosis.

**Reporting Requirements**

* Ehrlichiosis is reportable within 48 hours of recognition or strong suspicion of illness.

**Resources:**

* Maine CDC Ehrlichiosis website (including fact sheet): [www.maine.gov/dhhs/ehrlichiosis](http://www.maine.gov/dhhs/ehrlichiosis)
* Tick-borne Disease in Maine: A Physician’s Reference Guide: <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/documents/tick-reference-guide.pdf>
* Insect Repellent Finder (including time of protection) <http://cfpub.epa.gov/oppref/insect/index.cfm#searchform>
* Tick Submission information (for identification) <http://extension.umaine.edu/ipm/tickid/>
* Federal CDC Ehrlichiosis website: <http://www.cdc.gov/ehrlichiosis/>