

Ehrlichiosis Fact Sheet

1. **What is ehrlichiosis?** - Ehrlichiosis refers to an infectious disease transmitted by ticks which may be caused by several similar but distinct pathogens—primarily *Ehrlichia chaffeensis* or *Ehrlichia ewingii*, which survive and reproduce in white blood cells. Ticks acquire the organism when feeding on white-tailed deer.
2. **How do people get ehrlichiosis?** - Ehrlichiosis is passed to humans through the bite of a lone star tick (*Amblyomma americanum*) that is infected with one or more of the bacteria that cause ehrlichiosis. Lone star ticks are not commonly found in Pennsylvania. Ehrlichiosis occurs most frequently in southeastern and south-central states during April to September.

Transmission of ehrlichiosis from an infected lone star tick occurs after it has been attached and feeding for at least 24 hours; however, tick bites are typically painless and many persons with ehrlichiosis do not recall a tick bite. In rare circumstances transmission can occur through the transfusion of contaminated blood.

3. **How soon does illness start after exposure?** – The time from exposure to the bacteria that causes ehrlichiosis to when symptoms begin (incubation period) ranges from 1 to 2 weeks.
4. **What symptoms should prompt you to see their health care provider?** - The symptoms are generally nonspecific and can range from very mild to very severe illness. Symptoms may include fever, headache, muscle ache, fatigue, nausea, vomiting, diarrhea, confusion and conjunctivitis (red eyes). Rash occurs in up to 60% of children but is less common (<30%) in adults. Older or immunocompromised individuals are likely to suffer a more serious illness.
5. **How is ehrlichiosis diagnosed?** - Diagnosis is based on clinical signs and symptoms and can be confirmed using specialized laboratory tests.
6. **What is the treatment for ehrlichiosis?** – Ehrlichiosis is usually treated with the antibiotic doxycycline. As confirmatory laboratory tests can take significant time to complete, treatment should not be withheld while awaiting results.
7. **Should I take preventative treatment if I am bitten by a tick but not yet ill?** – Antibiotic treatment following a tick bite is not recommended as a means to prevent ehrlichiosis. Instead, persons who experience a tick bite should be alert for symptoms suggestive of tickborne illness and consult a physician if fever, rash or other symptoms develop.
8. **Can animals get ehrlichiosis?** – Dogs can develop ehrlichiosis after a tick bite. Animals suspected to be ill from ehrlichiosis should be evaluated by a veterinarian. Appropriate antibiotic therapy usually results in rapid improvement. Veterinarians should be consulted for tick control options for pets and other animals of value that spend any time outdoors.

9. What can be done to lower the chances of getting a disease from a tick bite?

- a. Be aware of the presence of ticks and take appropriate precautions when outdoors in brushy, wooded or grassy areas, especially during late March – mid-October.
- b. When walking or hiking on trails, keep to the center of the path as much as possible as ticks are commonly present at the edges of trails.
- c. Use a tick repellent that contains DEET or permethrin and follow the manufacturer's recommendations.
- d. Wear long-sleeved shirts, long pants, and closed-toed shoes and tuck pant legs into top of socks or boots to reduce the opportunities for a tick to attach to skin.
- e. Wear light-colored clothes to make it easier to spot ticks.
- f. Talk to your veterinarian about tick control options for your pets.
- g. Check for ticks frequently on yourself, children and pets and remove them promptly. Pay extra attention to the head, neck and behind the ears.
- h. Take a shower after spending time in an area likely to have ticks—showering within 2 hours has been shown to reduce the likelihood of tick attachment.
- i. Carefully remove attached ticks from the body as soon as possible. Bare hands should not be used to remove ticks, due to the risk of exposure to the tick's fluids or feces. If gloves are not available, the fingers should be shielded with a tissue or paper towel. The tick should not be twisted, squeezed, crushed or punctured, but rather carefully pulled straight out from the skin using tweezers inserted between the tick's body and the skin.
- j. Tick removal techniques such as the use of hot matches or petroleum jelly actually may stimulate the tick to release additional infected saliva into the wound and, therefore, could increase the risk of infection.
- k. Tick bites should be thoroughly disinfected after removal of the tick, and the hands should be washed with soap and warm water. Freeze the tick in a plastic bag, write the date, and save for later identification in case of suspected illness.

10. For more information about ehrlichiosis:

<http://www.cdc.gov/Ehrlichiosis/symptoms/index.html>

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.