

## **Human Granulocytic Ehrlichiosis Fact Sheet**

1. **What is Human Granulocytic Ehrlichiosis (HGE)?** - HGE, also known as Anaplasmosis, is caused by a small bacterium that survives and reproduces in white blood cells, and is transmitted by the blacklegged tick (*Ixodes scapularis*) and the western blacklegged tick (*Ixodes pacificus*) in the United States. HGE was first described in 1994.
2. **Where can HGE infection occur in Pennsylvania?** - HGE can be acquired in tick endemic areas. The black-legged tick is found in wooded or brushy areas, on the edge of hiking or animal trails, or the edge of a lawn where it meets a wooded or brushy area. Deer are the hosts upon which the adult black-legged ticks feed prior to laying their eggs on the ground. Therefore when deer populations increase, the tick population also increases, thus enhancing the potential for disease transmission.
3. **What symptoms should prompt you to see their health care provider?** - Symptoms may include fever, chills, headache, muscle aches, nausea, vomiting, diarrhea, cough, joint pain, and confusion. Appropriate antibiotic therapy often results in rapid improvement.
4. **What are the symptoms and treatments of HGE in animals?** - Horses and dogs may also develop Ehrlichiosis. In the first two to four weeks of acute infection, the infected animal may develop a fever, lose weight, and be depressed. Appropriate antibiotic therapy usually results in rapid improvement.
5. **What precautions should hikers, homeowners, hunters, park visitors, etc. take?**
  - a. Avoid possible tick habitats during the peak time of year, late March – mid-October.
  - b. Wear tick repellent that contains Permethrin, or DEET.
  - c. Wear long-sleeved shirts, long pants, and closed-toed shoes and tuck pant legs into top of socks or boots.
  - d. Wear light-colored clothes to make it easier to spot ticks.
  - e. Check for ticks frequently and remove them promptly.
  - f. Taking a shower after returning from a tick infected habitat is a good way to begin checking for and removing ticks.
  - g. 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 excessively squeezed, crushed or punctured, but



rather carefully pulled away from the skin using tweezers inserted between the tick's body and the skin.

- h. 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.
- i. Tick bites should be thoroughly disinfected after removal of the tick, and the hands should be washed with soap and warm water. Finally freeze the tick in a plastic bag, and saving for later identification in case of suspected illness.

6. **For more information about HGE:** <http://www.cdc.gov/ehrlichiosis/>

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