

# Ehrlichiosis in Dogs: Fast Facts for Veterinarians

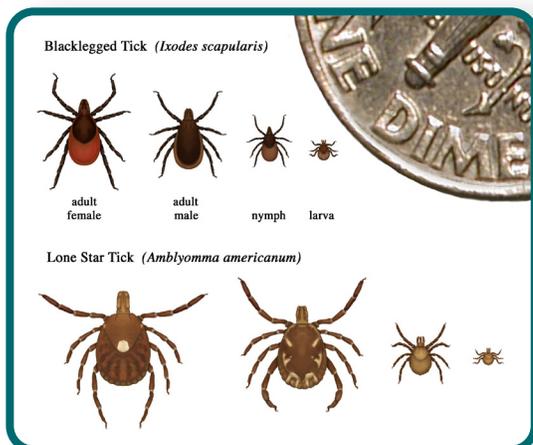
Ehrlichiosis is a disease caused by *Ehrlichia* bacteria transmitted to people and pets by infected ticks.

- Some *Ehrlichia* species, like *Ehrlichia canis*, only make dogs sick.
- Other *Ehrlichia* species, like *Ehrlichia chaffeensis*, *E. ewingii* and *E. muris eauclairensis*, make people and dogs sick.
- *Ehrlichia canis* bacteria can be found across the United States, but *E. ewingii* and *E. chaffeensis* are mostly found in the southeastern and eastern United States. Human cases of *E. muris eauclairensis* have only been documented in Minnesota and Wisconsin.



## Ticks that transmit *Ehrlichia* bacteria

- The brown dog tick (*Rhipicephalus sanguineus*) is found worldwide and transmits *E. canis*.
- The lone star tick (*Amblyomma americanum*), widely distributed across the eastern United States and common in the South, transmits *E. ewingii* and *E. chaffeensis*.
- The blacklegged tick (*Ixodes scapularis*), widely distributed across the eastern United States, transmits *E. muris eauclairensis*.
- *Ehrlichia* are not spread from person to person or from animals to people.



Selection of tick species that transmit *Ehrlichia* bacteria.

## Signs of disease in dogs

- Ehrlichiosis is a serious disease that can cause life-threatening complications.
- Dogs develop clinical signs 1-3 weeks after the bite of an infected tick.
- Clients may report new onset of lethargy, inappetence, and lameness.
- Dogs may have a fever, joint pain, evidence of bleeding, anemia, thrombocytopenia, or uveitis.



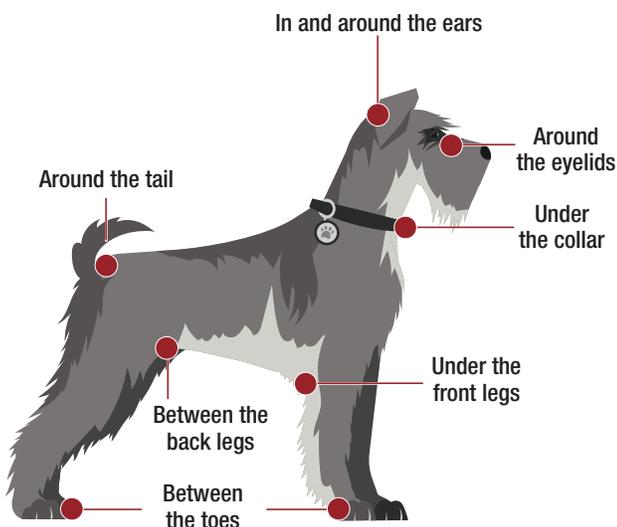
U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

## Treatment and diagnosis of ehrlichiosis

- Ehrlichiosis is usually treated with a 28-day course of doxycycline.
  - » If you suspect ehrlichiosis, do not wait for test results to begin treatment.
- The clinical signs of ehrlichiosis should resolve within 24-72 hours of initiating treatment; if there is no improvement, explore differential diagnoses.
- There are two types of tests to confirm ehrlichiosis: antibody tests and PCR tests.
  - » Antibody tests:
    - ◆ Antibody tests may be negative during the first week of illness (while the immune system is building a response) and may remain positive for months to years.
    - ◆ A rapid antibody test gives a positive or negative result within minutes.
    - ◆ ELISA and IFA antibody tests quantify antibody production but must be sent out to diagnostic labs and may take days or weeks for results.
  - » PCR tests:
    - ◆ Some PCR tests provide species-specific results. PCR is available at some diagnostic labs and may take days for results.

## Tick prevention for pets

- Advise clients use veterinary-recommended tick prevention products such as collars, monthly topical, or advise clients to use oral preventives year-round.
- Advise clients not to use human insect repellents on pets.
- Recommend that clients check themselves and their pets for ticks after time outdoors.
- Remind clients that removing attached ticks right away reduces the risk of disease transmission.



Places to look for ticks on dogs

### To remove a tick:

- Use clean, fine-tipped tweezers to grasp the tick close to the skin's surface.
- Pull upward with steady, even pressure. Don't twist or jerk the tick.
- After removing the tick, thoroughly clean the bite area and your hands.