

Helpful Hint: A positive antibody assay for infectious agents only confirms exposure but is not diagnostic for clinical disease

Lyme, Ehrlichia or Anaplasma Positive?-- What does it mean?

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*Antibody tests for infectious agents indicate patient exposure but do not confirm clinical disease. Many animals become antibody positive in geographical areas harboring infected ticks. Only a very small number of exposed, antibody positive animals will develop clinical illness and many animals will maintain circulating antibody from repeated exposure without ever developing clinical disease. It is estimated that less than 10 per cent of infections with *Borrelia burgdorferi* result in disease in dogs. The majority of infected dogs experience subclinical disease, and antibody titers may persist for months or years.*

Antibody assays may be most useful in ruling out infectious disease since lack of antibody indicates the animal has not been exposed to the infectious agent--provided sufficient time has elapsed from exposure for seroconversion. However, *Anaplasma phagocytophilum* antibody tests do not provide relevant clinical information due to the nature of the disease process. Animals infected with *Anaplasma phagocytophilum* often present with acute clinical signs prior to the development of detectable antibodies. Conversely, *Anaplasma phagocytophilum* antibody levels persist in recovered animals with no correlation with clinical signs.

*Certain geographical areas are known endemic areas for Lyme disease (including Minnesota, central and northwestern Wisconsin, parts of Connecticut, New York and Pennsylvania). *Ixodes scapularis*, the tick vector for Lyme disease has more recently become established in some regions of Ohio which will eventually also likely become endemic areas for Lyme disease.*

*Diagnosis of clinical disease due to Ehrlichia, Borrelia, Anaplasma and other infectious agents requires assessment of history, physical examination and ancillary testing. **A positive antibody assay is not diagnostic of disease.***

References

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