

known Lyme disease–endemic areas (CDC, unpub. data). Selective testing of dogs with exposure histories may yield misleading results with respect to local endemicity.

Our findings suggest that canine seroprevalence >5% can be a sensitive but nonspecific marker of increased risk for human Lyme disease. Because dogs do not transmit infection directly to humans (or humans to dogs), this association reflects similar susceptibilities to tick-borne infection. In some circumstances, high canine seroprevalence appears to anticipate increasing rates of human infection at the county level. Conversely, canine seroprevalence ≤1% is associated with little to no local risk for human infection. Canine seroprevalence is a useful adjunct to human surveillance for Lyme disease.

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### References

- Bacon RM, Kugeler KJ, Mead PS. Surveillance for Lyme disease—United States, 1992–2006. *MMWR Surveill Summ*. 2008;57:1–9.
- Herrington JE Jr, Campbell GL, Bailey RE, Cartter ML, Adams M, Frazier EL, et al. Predisposing factors for individuals' Lyme disease prevention practices: Connecticut, Maine, and Montana. *Am J Public Health*. 1997;87:2035–8. doi:10.2105/AJPH.87.12.2035
- Fine AM, Brownstein JS, Nigrovic LE, Kimia AA, Olson KL, Thompson AD, et al. Integrating spatial epidemiology into a decision model for evaluation of facial palsy in children. *Arch Pediatr Adolesc Med*. 2011;165:61–7. doi:10.1001/archpediatrics.2010.250
- Tugwell P, Dennis DT, Weinstein A, Wells G, Shea B, Nichol G, et al. Laboratory evaluation in the diagnosis of Lyme disease. *Ann Intern Med*. 1997;127:1109–23.
- Falco RC, Smith HA, Fish D, Mojica BA, Bellinger MA, Harris HL, et al. The distribution of canine exposure to *Borrelia burgdorferi* in a Lyme-disease endemic area. *Am J Public Health*. 1993;83:1305–10. doi:10.2105/AJPH.83.9.1305
- Guerra MA, Walker ED, Kitron U. Canine surveillance system for Lyme borreliosis in Wisconsin and northern Illinois: geographic distribution and risk factor analysis. *Am J Trop Med Hyg*. 2001;65:546–52.
- Duncan AW, Correa MT, Levine JF, Breitschwerdt EB. The dog as a sentinel for human infection: prevalence of *Borrelia burgdorferi* C6 antibodies in dogs from southeastern and mid-Atlantic states. *Vector Borne Zoonotic Dis*. 2004;4:221–9.
- Bowman D, Little SE, Lorentzen L, Shields J, Sullivan MP, Carlin EP. Prevalence and geographic distribution of *Dirofilaria immitis*, *Borrelia burgdorferi*, *Ehrlichia canis*, and *Anaplasma phagocytophilum* in dogs in the United States: results of a national clinic-based serologic survey. *Vet Parasitol*. 2009;160:138–48. doi:10.1016/j.vetpar.2008.10.093
- IDEXX. Sensitivity and specificity of the SNAP® 4Dx® Test 2010 [updated 2010 Oct 1] [cited 2010 Oct 10]. [http://www.idexx.com/view/xhtml/en\\_us/smallanimal/inhouse/snap/4dx.jsf?selectedTab=Accuracy#tabs](http://www.idexx.com/view/xhtml/en_us/smallanimal/inhouse/snap/4dx.jsf?selectedTab=Accuracy#tabs)
- Little SE, Heise SR, Blagburn BL, Callister SM, Mead PS. Lyme borreliosis in dogs and humans in the USA. *Trends Parasitol*. 2010;26:213–8. doi:10.1016/j.pt.2010.01.006

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# etymologia

## *Mycobacterium chelonae*

[mi''ko-bak-tēr-eəm che'lō-nae]

From the Greek *mycēs*, fungus, *baktērion*, little rod, and *chelōnē*, turtle. German researcher Friedrich Freidmann reported isolation of this pathogen from the lung tissues of sea turtles (*Chelona corticata*) in 1903, referring to it as the turtle tubercle bacillus. In 1920, the Society of American Bacteriologists recommended that the organism be named after its discoverer, or *Mycobacterium friedmannii*. Bergey et al., however, chose in 1923 to instead recognize the host animal in the first edition of Bergey's Manual of Determinative Bacteriology and listed the bacterium as *Mycobacterium chelonei*. The spelling was changed in the 1980s to *chelonae* to make it consistent with general use.

**Source:** Dorland's Illustrated Medical Dictionary. 31st ed. Philadelphia: Saunders; 2007; Grange JM. *Mycobacterium chenolei*. *Tubercle*. 1981;62:273–6. [PubMed](#); Topley & Wilson's Microbiology and Microbial Infections. Bacteriology, 10th ed., Vol. 2. London: Hodder Arnold; 2005.