

# Can a tick be tested for Lyme disease?

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<https://danielcameronmd.com/cant-count-testing-engorged-ticks/>

Ticks can be tested for the Lyme disease bacteria and other tick-borne pathogens. But the accuracy of test results may depend on whether the tick is engorged.

[A study by Gasmi et al. found](#) that results may not be accurate when testing ticks which are engorged. [1] The authors examined 4,596 *I. scapularis* (blacklegged) ticks removed from individuals living in Quebec.

They found that 24.9% of the non-engorged blacklegged ticks were infected with *Borrelia burgdorferi* (Bb), the causative agent of Lyme disease.

Engorged ticks were expected to have an even higher rate of infection with the Lyme disease bacteria. But the prevalence was much lower with only 8.9% of engorged ticks testing positive for the Lyme disease agent. These findings are consistent with those [from another Canadian study](#). [2]

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It is still unclear why testing of engorged ticks is not accurately revealing the higher prevalence of Bb infection. The authors suggest that it could be due to the presence of inhibitors in the blood meal [3] or problems with the collection and transportation of engorged ticks.

Perhaps these findings were "due to simpler reasons such as the greater likelihood that un-engorged ticks remained alive up to DNA extraction, while engorged ticks may well have died days or weeks before testing," noted Gasmi.

In other words, a tick can be tested for Lyme disease but it isn't always a reliable tool in determining your risk of infection. If an engorged tick is removed and tested, it can be negative for the *Borrelia burgdorferi* bacteria.

## Related Articles:

[What blood type do ticks prefer?](#)

[How to test for Lyme disease using a tick](#)

[Tracking ticks in Canada with digital images](#)

**References:**

1. Gasmi S, Ogden NH, Leighton PA, Lindsay LR, Thivierge K. Analysis of the human population bitten by Ixodes scapularis ticks in Quebec, Canada: Increasing risk of Lyme disease. Ticks Tick Borne Dis. 2016.
2. Dibernardo A, Cote T, Ogden NH, Lindsay LR. The prevalence of Borrelia miyamotoi infection, and co-infections with other Borrelia spp. in Ixodes scapularis ticks collected in Canada. Parasit Vectors. 2014;7:183.
3. Wilson IG. Inhibition and facilitation of nucleic acid amplification. Appl Environ Microbiol. 1997;63(10):3741-3751.

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