

# Tickborne Diseases



## Which Patients Should be Tested for Tickborne Diseases?

Tickborne diseases are rising throughout the US from a variety of ticks, which carry and pass on different microorganisms to humans and animals.

Tickborne diseases have **more than doubled in 13 years** and represent **77% of all vector-borne disease reports**.

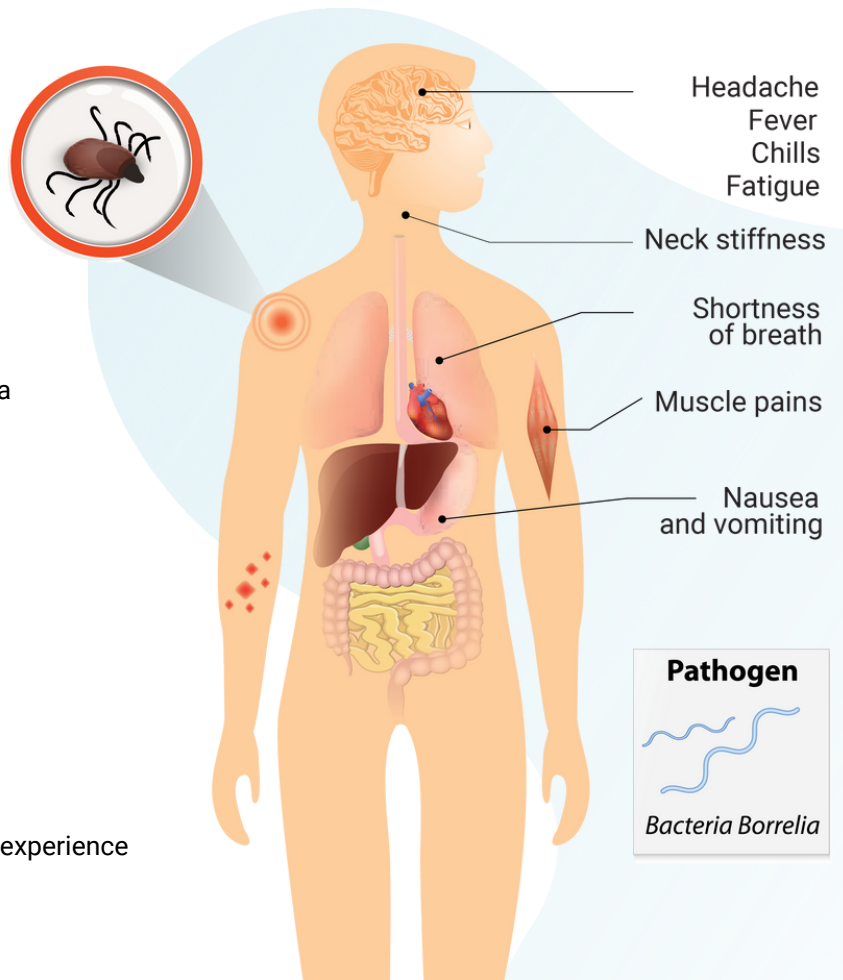
**Lyme disease accounts for 82% of all cases.**

## Recognizing Symptoms of Tickborne Disease

Many symptoms associated with tickborne disease are generic and mimic other conditions, making diagnosis difficult.

### Symptoms include:

- Fever
- Chills
- Headache
- Bell's palsy
- Neck stiffness
- Fatigue
- Muscle or joint aches and pains
- GI symptoms such as nausea, vomiting, diarrhea
- Change in cognitive or psychological status
- Appetite loss
- Weight loss
- Anemia
- Enlarged, tender lymph nodes
- Rash
- Painful abdomen
- Dizziness or shortness of breath
- Numbness or weakness in the limbs



Elderly and immunocompromised individuals often experience more severe disease symptoms and progression.

## Why Standard Tests Leave Patient Health at Risk

- Recent research reveals that the standard two-tier testing recommended by the CDC can lead to false positive or false negative results. In fact, the ELISA and Western blot tests can **miss up to 60% of well-defined Lyme disease cases.**<sup>1</sup>
- Lyme disease symptoms mimic other diseases, leading to delayed or misdiagnosis.
- Standard treatments for tickborne diseases typically involve prolonged courses of antibiotics, leaving patients at risk for multiple chronic inflammatory symptoms or conditions.

## The Vibrant Wellness Advantage

- **Early detection.** Identify various tickborne diseases earlier than standard tests to help patients recover quickly.
- **Unparalleled sensitivity and specificity.** Our panel runs on first-of-its-kind silicon microarray technology and chemiluminescence detection to deliver high sensitivity and specificity.
- **Advanced Lyme and co-infection detection.** Our proprietary technology tests antibodies (indirect) and DNA (direct) for the most comprehensive Lyme and co-infection detection.
- **Provide complete care with follow-up testing.** Aid recovery during antibiotic treatments by conducting regular screenings using Vibrant Gut Zoomer and Vibrant Gut Pathogens tests.

## The Vibrant Wellness Advantage

**Vibrant Wellness** is a leading CAP-accredited biotech company based in San Carlos, CA. We deliver life-transforming lab testing that enables health and wellness providers to discover the root of patient health issues.

We're at the forefront of modern medicine and research, providing personalized health analytics using cutting-edge, high-quality technology. We believe that anyone can achieve better health and vibrant longevity through individualized solutions based on testing—not guessing.

## What Does the Vibrant Tickborne Disease Panel Include?

- Protein microarray antigen and PCR detection of Lyme disease and TBRF
- Protein microarray antigen and PCR detection of co-infections of tickborne diseases (Anaplasma, Babesia, Borellia, Bartonella, Ehrlichia, and Rickettsia species)

### Reference:

1. Molins CR, Ashton LV, Wormser GP, Hess AM, Delorey MJ, Mahapatra S, Schriefer ME, Belisle JT. Development of a Metabolic Biosignature for Detection of Early Lyme Disease. Clin Infect Dis. 2015 Mar 11.



### Regulatory Statement

The general wellness test intended uses relate to sustaining or offering general improvement to functions associated with a general state of health while making reference to diseases or conditions. This test has been laboratory developed and its performance characteristics determined by Vibrant America LLC and Vibrant Wellness, CLIA-certified and CAP-accredited laboratory performing the test. The test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S., certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.

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