



Reimbursement Policy

Policy Number: RPLAB044

Policy Title: Lyme Disease Testing

Approval Date: May 15, 2026

Effective Date: Sept. 4, 2026

Policy Disclaimer

If a conflict arises between a Reimbursement Policy and any Plan document under which a member is entitled to covered services, the Plan document will govern. If a conflict arises between a reimbursement policy and any provider contract pursuant to which a provider participates in and/or provides covered services to eligible member(s) and/or plans, the provider's contract will govern. "Plan documents" include, but are not limited to, Certificates of Health Care Benefits, Benefit Booklets, Summary Plan Descriptions, and other coverage documents. Blue Cross and Blue Shield of Illinois may use reasonable discretion interpreting and applying this policy to services being delivered in a particular case. BCBSIL has full and final discretionary authority for their interpretation and application to the extent provided under any applicable Plan documents.

Providers are responsible for submitting accurate documentation of services performed. Providers are expected to submit claims for services rendered using valid code combinations from Health Insurance Portability and Accountability Act approved code sets. Claims should be coded appropriately according to industry standard coding guidelines including, but not limited to: Uniform Billing Editor, American Medical Association, Current Procedural Terminology (CPT®) Assistant, Healthcare Common Procedure Coding System, ICD-10-CM and ICD-10-PCS, National Drug Codes, Diagnosis Related Group guidelines, Centers for Medicare & Medicaid Services National Correct Coding Initiative Policy Manual, CCI table edits and other CMS guidelines.

Claims are subject to the code edit protocols for services and procedures billed. Claim submissions are subject to claim review, including but not limited to, any terms of benefit coverage, provider contract language, medical policies, and reimbursement policies, as well as coding software logic. Upon request, the provider is urged to submit any additional documentation.

Description

The Plan has implemented certain lab management reimbursement criteria. Not all requirements apply to each product. Providers are urged to review Plan documents for eligible coverage for services rendered.

Reimbursement Information

1. For individuals with a history of travel to a region endemic for Lyme, serologic testing (2-tier testing strategy using a sensitive enzyme immunoassay/EIA or immunofluorescence assay, followed by a western immunoblot assay or FDA-cleared second EIA assay) **may be reimbursable** in **any** of the following situations:
 - a. For individuals with early signs and symptoms of untreated Lyme disease (see **Note 1** who have a known tick exposure or a known environmental exposure (e.g., outdoor activities, contact with wildlife);
 - b. For individuals with later signs and symptoms of untreated Lyme disease (see **Note 1**) who may or may not have a known tick exposure;
 - c. For individuals with acute myocarditis/pericarditis of unknown cause;
 - d. For individuals with meningitis, encephalitis, or myelitis;
 - e. For individuals with painful radiculoneuritis;
 - f. For individuals with mononeuropathy multiplex including confluent mononeuropathy multiplex;
 - g. For individuals with acute cranial neuropathy.
2. When symptoms persist for individuals who tested negative by serologic testing, repeat serologic testing (no sooner than four weeks after previous test) **may be reimbursable**.
3. Serologic testing **is not reimbursable** in **any of** the following situations:
 - a. For individuals with an erythema migrans/EM rash. (See **Note 1**);
 - b. To screen asymptomatic individuals;
 - c. For individuals presenting solely with one of the following without additional signs or symptoms:
 - i. Amyotrophic lateral sclerosis;
 - ii. Relapsing-remitting multiple sclerosis;
 - iii. Parkinson's disease;
 - iv. Dementia/cognitive decline, or new-onset seizures;
 - v. Psychiatric illness.
4. Polymerase chain reaction/PCR -based direct detection of *B. burgdorferi* in CSF samples **may be reimbursable** and may replace serologic documentation of infection in

patients with a short duration of neurologic symptoms (<14 days) during the window between exposure and production of detectable antibodies.

5. For individuals who have previously tested positive for Lyme disease, repeat serologic testing **is not reimbursable**.
6. All other testing for *Borrelia burgdorferi* not described above **is not reimbursable**.
7. For the diagnosis of Lyme disease, testing of the individual tick **is not reimbursable**.

Note 1: Early signs and symptoms of untreated Lyme disease (three to thirty days after tick bite) include the following: (3,4)

- Fever
- Chills
- Headache
- Fatigue
- Muscle and joint aches
- Swollen lymph nodes
- Erythema migrans rash*

Later signs and symptoms of untreated Lyme disease (days to months after tick bite) include the following: (3)

- Severe headaches and neck stiffness
- Additional erythema migrans rash on other areas of the body*
- Facial palsy
- Arthritis with severe joint pain and swelling, particularly the knees and other large joints
- Intermittent pain in tendons, muscles, joints, and bones
- Heart palpitations or an irregular heartbeat
- Episodes of dizziness or shortness of breath
- Inflammation of the brain and spinal cord
- Nerve pain
- Shooting pains, numbness, or tingling in the hands or feet.

*When individuals present with one or more skin lesions compatible with erythema migrans, clinical diagnosis of Lyme disease can be made without laboratory testing, and treatment should be provided to those individuals without additional testing. (5-8)

Procedure Codes

The following is not an all-encompassing code list. The inclusion of a code does not guarantee it is a covered service or eligible for reimbursement.

Code	Description
86617	LYME DISEASE ANTIBODY
86618	LYME DISEASE ANTIBODY
87475	LYME DIS DNA DIR PROBE
87476	LYME DIS DNA AMP PROBE
0041U	B BRGDRFERI ANTB 5 PRTN IGM
0042U	B BRGDRFERI ANTB 12 PRTN IGG
0316U	B BRGDRFERI LYME DS OSPA EVL
0580U	BBRGDRFERI LD ANTB DETCJ 31
0615U	BBRGDRFERI LD ANTB DETCJ 26

CPT copyright 2025 American Medical Association (AMA). All rights reserved. CPT is a registered trademark of the AMA.

References

1. Barbour AG. Microbiology of Lyme disease. Updated June 7, 2023. <https://www.uptodate.com/contents/microbiology-of-lyme-disease>
2. Hu L. Diagnosis of Lyme disease. Updated May 5, 2025. <https://www.uptodate.com/contents/diagnosis-of-lyme-disease>
3. CDC. Signs and Symptoms of Untreated Lyme Disease. Updated May 15, 2024. <https://www.cdc.gov/lyme/signs-symptoms/index.html>
4. Mayo Clinic Laboratories. Acute Tickborne Disease Testing Algorithm for Mayo Clinic. Updated April 2024. <https://www.mayocliniclabs.com/-/media/it-mmfiles/Special-Instructions/3/5/6/Acute-Tick-Borne-Disease-Testing-Algorithm-int>
5. Lantos PM, Rumbaugh J, Bockenstedt LK, et al. Clinical Practice Guidelines by the Infectious Diseases Society of America (IDSA), American Academy of Neurology (AAN), and American College of Rheumatology (ACR): 2020 Guidelines for the Prevention, Diagnosis and Treatment of Lyme Disease. *Clinical Infectious Diseases*. 2021;doi:10.1093/cid/ciaa1215
6. AAP. Lyme Disease. In: Kimberlin DW, Bernstein HH, Meissner HC, eds. *Red Book: 2021–2024 Report of the Committee on Infectious Diseases 32nd Edition*. American Academy of Pediatrics; 2021:482-489.
7. NICE. Lyme disease. <https://www.nice.org.uk/guidance/ng95/chapter/Recommendations>
8. NICE. Lyme disease. Quality standard [QS186]. <https://www.nice.org.uk/guidance/qs186/chapter/Quality-statements>
9. Mead P. Epidemiology of Lyme disease Updated March 31, 2025. <https://www.uptodate.com/contents/epidemiology-of-lyme-disease>
10. Pritt BS, Mead PS, Johnson DKH, et al. Identification of a novel pathogenic *Borrelia* species causing Lyme borreliosis with unusually high spirochaetaemia: a descriptive

study. *The Lancet Infectious diseases*. 2016;16(5):556-564. doi:10.1016/s1473-3099(15)00464-8

11. Adeolu M, Gupta RS. A phylogenomic and molecular marker based proposal for the division of the genus *Borrelia* into two genera: the emended genus *Borrelia* containing only the members of the relapsing fever *Borrelia*, and the genus *Borrelia* gen. nov. containing the members of the Lyme disease *Borrelia* (*Borrelia burgdorferi* sensu lato complex). *Antonie van Leeuwenhoek*. 2014;105(6):1049-72. doi:10.1007/s10482-014-0164-x
12. Margos G, Marosevic D, Cutler S, et al. There is inadequate evidence to support the division of the genus *Borrelia*. *International journal of systematic and evolutionary microbiology*. 2017;67(4):1081-1084. doi:10.1099/ijsem.0.001717
13. Hyde JA. *Borrelia burgdorferi* Keeps Moving and Carries on: A Review of Borrelial Dissemination and Invasion. *Front Immunol*. 2017;8doi:10.3389/fimmu.2017.00114
14. Bacon RM, Kugeler KJ, Mead PS. Surveillance for Lyme disease-United States, 1992-2006. *Morbidity and mortality weekly report Surveillance summaries (Washington, DC : 2002)*. 2008;57(10):1-9.
15. Cook MJ. Lyme borreliosis: a review of data on transmission time after tick attachment. *Int J Gen Med*. 2015;8:1-8. doi:10.2147/ijgm.s73791
16. CDC. Lyme Disease Surveillance and Data. Updated March 13, 2025. <https://www.cdc.gov/lyme/data-research/facts-stats/index.html>
17. Fallon BA, Madsen T, Erlangsen A, Benros ME. Lyme Borreliosis and Associations With Mental Disorders and Suicidal Behavior: A Nationwide Danish Cohort Study. *Am J Psychiatry*. Oct 1 2021;178(10):921-931. doi:10.1176/appi.ajp.2021.20091347
18. Šegždaitė G, Aliukonytė O, Pociūtė K. Neuropsychiatric Manifestations of Lyme Disease: A Literature Review of Psychiatric and Cognitive Impacts. *Acta Med Litu*. 2025;32(1):6-21. doi:10.15388/Amed.2025.32.1.17
19. Weitzner E, McKenna D, Nowakowski J, et al. Long-term Assessment of Post-Treatment Symptoms in Patients With Culture-Confirmed Early Lyme Disease. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*. 2015;61(12):1800-6. doi:10.1093/cid/civ735
20. Marques AR. Laboratory diagnosis of Lyme disease: advances and challenges. *Infectious disease clinics of North America*. 2015;29(2):295-307. doi:10.1016/j.idc.2015.02.005
21. Schriefer ME. Lyme Disease Diagnosis: Serology. *Clinics in laboratory medicine*. 2015;35(4):797-814. doi:10.1016/j.cl.2015.08.001
22. Bunikis J, Barbour AG. Laboratory testing for suspected Lyme disease. *The Medical clinics of North America*. 2002;86(2):311-40.
23. John TM, Taeye AJ. Appropriate laboratory testing in Lyme disease. *Cleve Clin J Med*. 2019;86(11):751-759. doi:10.3949/ccjm.86a.19029
24. CDC. Clinical Testing and Diagnosis for Lyme Disease. Updated May 15, 2024. <https://www.cdc.gov/lyme/hcp/diagnosis-testing/index.html>
25. Halperin JJ. Chronic Lyme disease: misconceptions and challenges for patient management. *Infection and drug resistance*. 2015;8:119-28. doi:10.2147/idr.s66739
26. Waddell LA, Greig J, Mascarenhas M, Harding S, Lindsay R, Ogden N. The Accuracy of Diagnostic Tests for Lyme Disease in Humans, A Systematic Review and Meta-Analysis

-
- of North American Research. *PLoS one*. 2016;11(12):e0168613.
doi:10.1371/journal.pone.0168613
27. CDC. Updated CDC Recommendation for Serologic Diagnosis of Lyme Disease.
<https://www.cdc.gov/mmwr/volumes/68/wr/mm6832a4.htm>
 28. ZEUS Scientific. ZEUS Borrelia MTTT™: A paradigm shift in testing for Lyme disease.
<https://www.zeusscientific.com/what-is-mttt>
 29. Davis IRC, McNeil SA, Allen W, et al. Performance of a Modified Two-Tiered Testing Enzyme Immunoassay Algorithm for Serologic Diagnosis of Lyme Disease in Nova Scotia. *Journal of Clinical Microbiology*. 2020;58(7):e01841-19. doi:10.1128/jcm.01841-19
 30. CCDR. Modified two-tiered testing algorithm for Lyme disease serology: the Canadian context. *Can Commun Dis Rep*. 2020;46(5):125-131. doi:10.14745/ccdr.v46i05a05
 31. Wormser GP, Schriefer M, Aguero-Rosenfeld ME, et al. Single-tier testing with the C6 peptide ELISA kit compared with two-tier testing for Lyme disease. *Diagnostic microbiology and infectious disease*. 2013;75(1):9-15.
doi:10.1016/j.diagmicrobio.2012.09.003
 32. Igenex. Lyme ImmunoBlot. <https://igenex.com/wp-content/uploads/LymeImmunoBlot-DataSheet.pdf>
 33. Igenex. Development of a sensitive PCR-dot blot assay to supplement serological tests for diagnosing Lyme disease. 2017;
 34. Ghosh R, Joung H-A, Goncharov A, et al. Rapid single-tier serodiagnosis of Lyme disease. *Nature Communications*. 2024;15(1):7124. doi:10.1038/s41467-024-51067-5
 35. Joung HA, Ballard ZS, Wu J, et al. Point-of-Care Serodiagnostic Test for Early-Stage Lyme Disease Using a Multiplexed Paper-Based Immunoassay and Machine Learning. *ACS Nano*. 2019;doi:10.1021/acsnano.9b08151
 36. Shakir SM, Mansfield CR, Hays ED, Couturier MR, Hillyard DR. Evaluation of a Novel High-Definition PCR Multiplex Assay for the Simultaneous Detection of Tick-Borne Pathogens in Human Clinical Specimens. *J Clin Microbiol*. 2019;doi:10.1128/jcm.01655-19
 37. Nigrovic LE, Lewander DP, Balamuth F, et al. The Lyme Disease Polymerase Chain Reaction Test Has Low Sensitivity. *Vector Borne Zoonotic Dis*. 2019;doi:10.1089/vbz.2019.2547
 38. van Gorkom T, Voet W, Sankatsing SUC, et al. Prospective comparison of two enzyme-linked immunosorbent spot assays for the diagnosis of Lyme neuroborreliosis. *Clin Exp Immunol*. 2020;199(3):337-356. doi:10.1111/cei.13393
 39. Sabin AP, Scholze BP, Lovrich SD, Callister SM. Clinical evaluation of a Borrelia modified two-tiered testing (MTTT) shows increased early sensitivity for Borrelia burgdorferi but not other endemic Borrelia species in a high incidence region for Lyme disease in Wisconsin. *Diagnostic microbiology and infectious disease*. 2023;105(1):115837. doi:10.1016/j.diagmicrobio.2022.115837
 40. Pratt GW, Platt M, Velez A, Rao LV. Utility of Whole Blood Real-Time PCR Testing for the Diagnosis of Early Lyme Disease. *Am J Clin Pathol*. 2022;158(3):327-330. doi:10.1093/ajcp/aqac068
 41. Arumugam S, Nayak S, Williams T, et al. A Multiplexed Serologic Test for Diagnosis of Lyme Disease for Point-of-Care Use. *Journal of Clinical Microbiology*. 2019;57(12):10.1128/jcm.01142-19. doi:doi:10.1128/jcm.01142-19

-
42. Ma W, Li J, Gao L, et al. Comparison of the Serodiagnostic Accuracy Tests for Lyme Disease in Adults and Children: A Network Meta-Analysis. *Pathogens*. Aug 6 2025;14(8)doi:10.3390/pathogens14080784
43. Mead P, Petersen J, Hinckley A. Updated CDC Recommendation for Serologic Diagnosis of Lyme Disease. *MMWR Morb Mortal Wkly Rep*. 2019;68(32):703. doi:10.15585/mmwr.mm6832a4
44. ACR. Choosing wisely: The American College of Rheumatology's top 5 list of things physicians and patients should question. <https://escholarship.org/content/qt1kj5v9z2/qt1kj5v9z2.pdf?t=rs2emz&v=lg>
45. Global Lyme Alliance. Lyme Disease Diagnosis: Key Steps in Diagnosing Lyme Disease. <https://www.globallymealliance.org/about-lyme/diagnosis/>

Policy History

Approval Date	Description
05/15/2026	09/04/2026; Document updated with literature review. The following changes were made: Combined #1 (symptomatic for Lyme disease) and #2 (extreme conditions potentially caused by undiagnosed Lyme disease) into one statement and added 1.a. "For individuals with early signs and symptoms of untreated Lyme disease (see Note 1) who have a known tick exposure or a known environment exposure (e.g., outdoor activities, contact with wildlife)" and 1.b. " For individuals with later signs and symptoms of untreated Lyme disease (see Note 1) who may or may not have a known tick exposure." Added new #2 "When symptoms persist for individuals who tested negative by serologic testing, repeat serologic testing (no sooner than four weeks after previous test) may be reimbursable." #3.a replaced reference to endemic regions to "see Note 1"; #3.b. removed "living in endemic areas" as asymptomatic individuals should not be screened for Lyme disease. Added new Note 1 to define signs/symptoms of early and late untreated Lyme disease and note that individuals presenting with erythema migrans rash should be clinically diagnosed and treated without a need for laboratory testing. References revised.
02/18/2026	04/01/2026; Added code 0615U effective 4/1/2026.
09/05/2025	01/01/2026: New policy.