

The Pennsylvania Department of Health, Bureau of Laboratories (BOL) is offering Lyme disease testing for Pennsylvania residents. This service is provided free of charge to individuals residing in the state who are uninsured or underinsured.

Lyme disease is an infection caused by the bacterium *Borrelia burgdorferi* that is spread by infected *Ixodes* tick bites. Each year, approximately 35,000 cases of Lyme disease are reported to CDC. A quarter of those cases are in Pennsylvania. Recent estimates suggest that 476,000 people may contract Lyme Disease each year in the United States. Typical symptoms include fever, headache, fatigue, and a characteristic "bull's-eye" skin rash called erythema migrans.

Testing offered at the Bureau of Laboratories:

BOL is performing the modified two-tiered ELISA testing (MTTT-2) algorithm. The screening test is a qualitative detection of *Borrelia burgdorferi* IgG & IgM antibodies against the VlsE1/pepC10 antigens. All non-negative specimens will automatically reflex to confirmatory qualitative ELISA to distinguish between *Borrelia burgdorferi* IgG and IgM antibodies. Testing is performed Monday through Friday.

Acceptable Specimens for Lyme testing: Serum

Specimen Collection:

1. Collect 3-5 mL of blood in a serum-separator tube (SST). **DO NOT** collect blood in any tube containing anticoagulants or preservatives.
2. Label tube with patient's first & last name, date of birth (DOB) and collection date. Specimen label **MUST** match submission form, or specimen may be rejected.
3. Centrifuge blood collection specimen tube to separate the serum.
4. Refrigerate specimen at 2-8 °C until shipment.

BOL Specimen Submission Form:

www.health.pa.gov/topics/Documents/Laboratories/BOL/Micro/Specimen%20Submission/Form.pdf

Mandatory information to be included:

1. Patient name (last, first, middle), street address, city, zip code, and county
2. DOB, sex, date of onset, specimen source and collection date
3. Submitter name, complete address, and contact information, including both phone and fax number.

Specimen Packaging and Storage Instructions:

1. Label with patient's name, DOB, the specimen source and the collection date.
2. Patient's information and the specimen submission form must match the specimen container or testing will **NOT** be performed.
3. Place the tube in compartment of the biohazard bag and seal the bag. Please the paperwork in the out pocket of the biohazard bag.
4. Store the specimen at 2 - 8°C until shipping and no longer than 10 days. If a delay in shipping is anticipated, freeze sera at -20°C or lower.

Shipping Instructions:

1. Keep the specimen cold or frozen until it reaches the laboratory.
2. Ship the specimen with a cold pack if it is in cold temperature or on dry ice if it is frozen.
3. Do not ship specimens out on Fridays, weekends, day before a holiday or on holidays.

Contact Hephzibah Tagaram, Virology, Immunology, and Serology Section supervisor, at 484-870-6380 or htagaram@pa.gov if you have questions.

References:

1. <https://www.cdc.gov/lyme/index.html>
2. CDC recommendations for Lyme testing
https://www.cdc.gov/mmwr/volumes/68/wr/mm6832a4.htm?s_cid=mm6832a4_w
3. <https://www.zeusscientific.com/disease-states/lyme-disease>