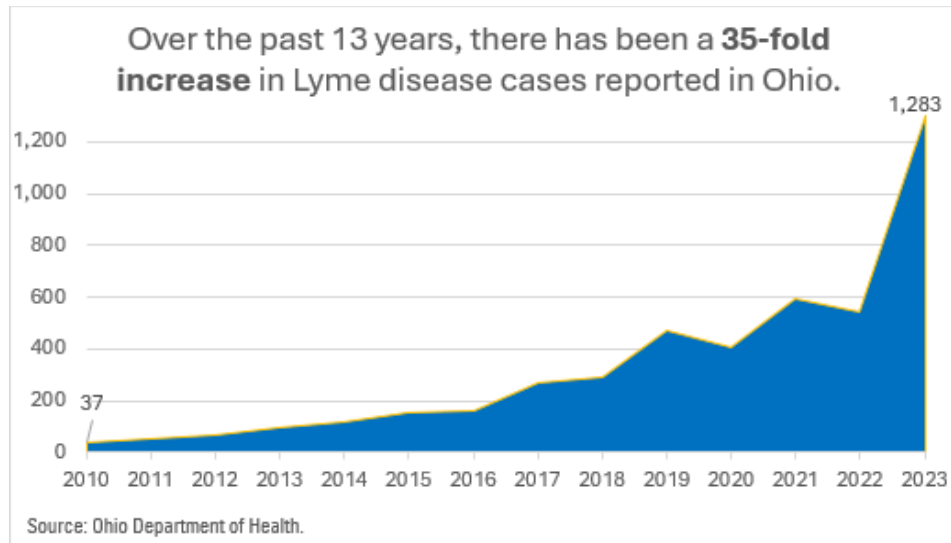




Lyme Disease, a Rising Concern in Ohio

Since the establishment and spread of blacklegged ticks in Ohio, Lyme disease has steadily increased and caused significant disease among Ohioans. While it is both preventable and treatable, Lyme disease may become more severe and life-altering if not treated early.



Actions for Ohio Clinicians

1. **Consider tickborne diseases, including Lyme disease, as a differential diagnosis when evaluating patients with febrile illness, with or without a rash.** Many tickborne diseases present with non-specific clinical signs such as fever, headache, fatigue, and muscle aches. Some, but not all, tickborne diseases may present with a rash that can vary in presentation. For more information on symptoms of tickborne diseases, visit https://www.cdc.gov/ticks/about/index.html#cdc_disease_basics_symptoms

2. **Familiarize yourself with the laboratory tests available to diagnose tickborne illness.**

Lyme disease

- Testing involves two steps and can be done with the same blood sample.
 - I. Step one is to perform an immunoassay antibody test detecting IgM and/or IgG antibodies to *B. burgdorferi*. If negative, no further testing is recommended.
 - II. If the first step is positive or indeterminate/equivocal, Step two is to perform an IgM and/or IgG western blot.

- The IgM Western blot usually is positive a few days to a few weeks after illness onset. The IgG Western blot should be positive around four weeks after symptom onset.

Anaplasmosis, ehrlichiosis and spotted fever group rickettsiosis

- Perform PCR from whole blood specimens collected during the acute state of illness, or IFA testing of at least two serum samples collected two to four weeks apart during acute and convalescent phases.
- **Note:** Serologic sensitivity is poor in the early stages of infection. If serology is negative in patients with possible early infection, repeat serology three to four weeks later which may demonstrate seroconversion.

Babesiosis

- Diagnosis can be made by examination of thick and thin blood smears stained with Giemsa or IFA testing.

Powassan Virus

- Contact the ODH Zoonotic Disease Program 614-995-5599 to arrange for testing by CDC.

3. **Promptly report suspected cases of tickborne infections to the [local health department](#) where the patient resides.**

Treatment for Tickborne Illness

If anaplasmosis, ehrlichiosis, Lyme disease, or spotted fever group rickettsiosis is suspected, treat all patients, including children, promptly with doxycycline. Do not delay therapy pending diagnosis, as anaplasmosis, ehrlichiosis, and spotted fever group rickettsioses are potentially fatal. Babesiosis should be treated with Atovaquone PLUS azithromycin or Clindamycin PLUS quinine. There is no medication to treat Powassan virus infection; provide supportive care. Additional information on treatment of tickborne diseases can be found at www.cdc.gov/ticks.

Additional Information

Tickborne Disease Information and Educational Materials for patients

- Ohio Department of Health: Tickborne Diseases in Ohio:
www.odh.ohio.gov/tick.
- Centers for Disease Control and Prevention: Symptoms of Tickborne Illness:

[https://www.cdc.gov/ticks/about/index.html#cdc_disease_basics_symptoms.](https://www.cdc.gov/ticks/about/index.html#cdc_disease_basics_symptoms)

- Centers for Disease Control and Prevention: Repellents and Bite Prevention:
<https://www.cdc.gov/ticks/prevention/index.html>.
- U.S. Environmental Protection Agency: Find the Repellent that is Right for You:
<https://www.epa.gov/insect-repellents/find-repellent-right-you>.
- Centers for Disease Control and Prevention: Tickborne Disease Continuing Education for Healthcare Providers:
<https://www.cdc.gov/ticks/hcp/training/>.
- Ohio Department of Health: Request for Educational Materials:
<https://redcap.link/ZDPEducationalMaterialsRequestForm>.

Helpful Contacts

- Find Your Local Health Department:
<https://odh.ohio.gov/find-local-health-districts>.
- ODH Zoonotic Disease Program:
Zoonoses@odh.ohio.gov
614-955-5599