

Early Lyme Disease Symptom Checklist

Be aware of early symptoms that come and go, and move around the body.

Rashes

- **Bulls-eye or red expanding rash:** Getting a bulls-eye/Erythema migrans rash is uncommon, **but in Pennsylvania it is diagnostic (positive) for Lyme and should be treated, no test required.*** This rash may appear at the site of the bite. It may be irregular in shape and can appear circular, triangular or oval depending on the location on the body.
- **Irregular rash:** Other rashes may appear, varying in shape and size. DO NOT dismiss an irregular or faded rash. When a rash spreads, it shows the Lyme infection spreading in the body; treatment is needed as soon as possible.
- **No rash:** Some people do not get a rash with a tick bite. In positive Lyme cases, patients often do not recall having a rash.

- Flu-like symptoms: fever, chills, sore throat, swollen glands, nausea, muscle aches, joint pain
- Bell's palsy, facial muscle weakness or paralysis
- Sleep disturbance
- Headaches (may be severe)
- Fatigue
- Lightheadedness, fainting, shortness of breath
- Heart palpitations or chest pain (Lyme carditis)
- Neck stiffness
- Shooting pains that may interfere with sleep
- Swollen lymph nodes
- Pain and swelling in large joints
- Night sweats

NOTE ABOUT RASHES: If you get a red rash of any type, you should seek medical attention immediately. The rash may be warm, but usually not painful.

**The CDC surveillance definition does not accept the EM rash alone as an indicator in the states it defines as "low incidence" states (<https://ndc.services.cdc.gov/case-definitions/lyme-disease-2017/>).*

Note Changes & Take Action

Be sure to regularly take your temperature. Lyme disease often does not cause a fever, but some co-infections may cause fever spikes, or a low-grade fever. Write down any symptoms you have, educate yourself by reading current articles about the disease, and get to a health care practitioner.

LYME DISEASE IN CHILDREN: Untreated/undertreated Lyme disease can have a serious impact on a child's life. Their ability to learn, their mood and behavior can be affected in addition to physical symptoms. A Columbia University study on children with Lyme disease found some children had a 22-point drop in IQ. Children with Lyme also can have a hard time relating and interacting with other children in their age group. Early identification and diagnosis are important to their future health. Symptoms in children include: severe fatigue, ADD/ADHD, Neuropsychiatric problems, decreased attention span, difficulty thinking, expressing, reading, writing and making decisions, uncharacteristic emotional outbursts, confusion, tics, insomnia, nightmares and other symptoms. Visit these sites for additional information:

- <https://lymediseaseassociation.org/about-lyme/lyme-kids-a-schools/kids-and-lyme-disease-how-it-affects-their-learning/>
- <https://www.ilads.org/wp-content/uploads/2018/04/brochure-psychiatric-lyme-disease.pdf>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6165408/>
- <https://www.rheumatologyadvisor.com/home/topics/lyme-disease/diagnosing-lyme-disease-in-children-with-neuropsychiatric-illness/>



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Disclaimer: The information in this brochure is for educational purposes only. It is not intended to replace or overrule patient care by a health care provider. If an individual suspects the presence of a tick-borne illness, that individual should consult a health care provider who is familiar with the diagnosis and treatment of tick-borne diseases.

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Other Tick-Borne Infections

Besides Lyme, ticks can carry and transmit other serious viral, parasitic and bacterial infections from a single bite. These infections can lead to more severe outcomes and patients can get sicker, and stay sicker longer. Standard Lyme disease tests may not detect these infections, but there are specialized tests that can detect the organisms. Early diagnosis and treatment are important to avoid future complications. Knowing the type of tick that bit you can help your health care practitioner with making a better diagnosis.

Infection & Associated Tick	Rash & Symptoms
Alpha-Gal (red meat allergy) <i>Lone Star tick</i>	Runny nose/congestion, diarrhea, nausea, sneezing, hives, asthma, anaphylaxis (allergic reaction/inability to breathe) after consuming red meat (beef, pork, lamb) or products like gelatins/dairy products
Anaplasmosis <i>Blacklegged tick</i>	Similar to Ehrlichiosis, severe headaches, low blood platelets
Babesiosis <i>Blacklegged tick</i>	High fevers, anemia, sweats (particularly at night), chills, severe headaches, fatigue, sleep disturbances, air hunger
Bartonellosis <i>Blacklegged tick</i> (known to carry, but human transmission not yet been proven)	Rash: Stretch mark-like appearance, run diagonal to the skin planes Swollen glands, fatigue, headaches, arthritis, general aches and pains, seizures, neurological disorders, dementia, eye infections/vision loss, sole pain
Borrelia miyamotoi disease <i>Blacklegged tick</i>	Rash: Bulls-eye rashes rarely seen Relapsing symptoms similar to Lyme disease including: fever, headache, fatigue, joint and muscle pain, loss of appetite, disorientation/memory loss, lack of coordination, severe neurological conditions
Ehrlichiosis <i>American Dog tick*, Blacklegged tick & Lone Star tick</i>	Rash: Smaller than Lyme with raised areas or no rash at all High fevers, chills, headaches, fatigue, general achiness. Later symptoms: nausea, diarrhea or constipation, loss of appetite, cough, stiff neck, confusion and weight loss
Mycoplasmosis <i>Blacklegged tick</i> (known to carry, but human transmission not yet been proven)	Severe fatigue, headache, muscle/joint pain and swelling, nausea, diarrhea, abdominal bloating, bronchitis and sometimes neuropsychiatric issues such as anxiety, insomnia, emotional volatility, memory loss, and lack of concentration
Powassan Virus <i>Blacklegged tick</i>	Infects the central nervous system, Encephalitis (brain inflammation), Meningitis, fever, headache, vomiting, weakness, confusion, loss of coordination, speech difficulties, seizures
Q Fever	Relapsing fevers, headaches, chills or sweats, fatigue, muscle aches, nausea, diarrhea, chest pain, stomach pain, weight loss, non-productive cough, Q Fever Endocarditis (Q Fever is no longer considered by the CDC to be tick-borne, www.cdc.gov/qfever/transmission/index.html)
Rocky Mountain Spotted Fever <i>American Dog tick, Brown Dog tick, Lone Star tick* & Rocky Mt Wood tick</i>	Rash: Spreading reddish rash starting around the wrists and ankles and on the palms and soles and other body parts High fever, headache, achiness (<i>left untreated: permanent neurological problem and can be fatal</i>)
Tick-Borne Relapsing Fever (B. Hermsii, B. Turicatae, B. Parkeri) <i>Soft bodied ticks</i>	Main symptoms include high fever (e.g., 103° F), headache, muscle and joint aches. Symptoms can reoccur, producing a telltale pattern of fever lasting roughly 3 days, followed by 7 days without fever, followed by another 3 days of fever. Without antibiotic treatment, this process can repeat several times.
Tularemia <i>American Dog tick</i>	Rash: Skin ulcer at the site of a bite (not frequent) Swollen lymph nodes near the skin ulcer (most often in the armpit or groin), severe headaches, fever, chills, fatigue, headaches