

# Printable Lyme and Tick-borne Diseases Fact Sheet for Education Professionals

Content on this page is from the Centers for Disease Control and Prevention (CDC) and the Children's Lyme Network



Lyme disease can affect a child's learning, social experiences, and development. Behavioral or cognitive difficulties may be the only symptoms of a tick-borne infection. This document helps educators understand the impact of pediatric Lyme and tick-borne diseases.

## Children with Lyme Disease are More Likely to

- ▶ Have lower grades in school
- ▶ Have difficulty maintaining friendships
- ▶ Have debilitating fatigue and pain
- ▶ Have difficulty processing information
- ▶ Have behavior outbursts or mood swings
- ▶ Have a greater risk of Depression

*79% of children with complications from Lyme disease experience a decrease in their number of friends*

## Lyme Disease and Learning Disabilities

Lyme disease can affect cognitive function. Students with Lyme and other tick-borne diseases may experience debilitating fatigue, slow processing speed, memory loss, and vision problems, all of which can cause difficulties with learning. Students affected by Lyme and tick-borne diseases may need accommodations such as untimed tests, shorter school days, less homework, or modified home instruction. Children and families affected by tick-borne diseases need teachers' understanding, support, and encouragement.

## Lyme Disease in the Classroom

Educators are in a unique position to notice subtle changes in their students that may be the only symptoms of a tick-borne disease.

**Lyme disease symptoms can change frequently, and it may be easy to perceive a student as avoidant, daydreaming, oppositional, or lazy when they are actually quite sick.** Students with Lyme disease may feel well one day and extremely ill the next.

## Risk for Lyme Disease

Elementary school age children are at the greatest risk for Lyme disease. Anyone who lives in, or travels to, endemic areas is at risk for Lyme and tick-borne diseases. Symptoms of Lyme disease usually begin within the first few weeks after being bitten by an infected tick, but they may appear months later. Many children who contract Lyme disease do not remember having a tick bite.

## Lyme Disease Treatment

Studies show that anywhere from 5% to 20% of patients experience ongoing symptoms of Lyme disease after standard treatment. The CDC calls this PTLDS, or Post Treatment Lyme Disease Syndrome. **When a child has been treated for Lyme disease his or her symptoms may resolve quickly, or they may take as long as a year to get better.** Some children may continue to have complications for an extended period of time, possibly years, including cognitive difficulties that can affect behavior and school performance.

## Presentation of Lyme and Tick-borne Diseases

"Lyme disease, which can cause a wide range of physical, psychiatric and cognitive symptoms, can be particularly difficult to identify in children and adolescents. It's difficult for young children to describe how they're feeling, especially with a disease where symptoms are waxing and waning and changing over time. Parents may have difficulty recognizing symptoms when their child is young and there's no medical baseline to compare with. And lastly, puberty and developmental stages may be blamed for sudden changes in the child's behaviors and personality." - *Children's Lyme Network*

"Different people exhibit different signs and symptoms of Lyme disease. Some people never develop a bull's-eye rash. Some people only develop arthritis, and for others nervous system problems are the only symptom of Lyme disease." - *Centers for Disease Control and Prevention (CDC)*

## Symptoms in Children and Adolescents

- ▶ Fatigue
- ▶ Migratory Joint Pain
- ▶ Muscle Pain and Weakness
- ▶ Fevers
- ▶ Problems Sleeping
- ▶ Upset Stomach
- ▶ Irritability
- ▶ Impulsivity
- ▶ OCD-type Behaviors
- ▶ Brain Fog
- ▶ Bursts of Aggression/Rage
- ▶ Sensitivity to Light, Sound or Touch
- ▶ Slow Processing Speed
- ▶ Vision Difficulties/Double Vision
- ▶ Memory Problems
- ▶ Mood Disorders
- ▶ Encephalopathy
- ▶ Facial Paralysis (Bell's Palsy)
- ▶ Skin Rash

Sometimes only one symptom will be present, or a child may experience multiple symptoms.