

Symptoms of Borreliosis (Lyme Disease) and Common Tickborne Co-Infections: Babesiosis , Bartonellosis, and Ehrlichiosis

The following symptoms were excerpted from *Diagnostic Hints And Treatment Guidelines For Lyme And Other Tick Borne Illnesses*, by Joseph J. Burrascano Jr., M.D. (Fourteenth Edition, November, 2002). Available online at www.ilads.org/burrascano_1102.htm

Borrelia

(Borreliosis, neuroborreliosis; also known as Lyme Disease)

Spread primarily through the bite of infected ticks that live on a wide range of mammalian species; secondary human-to-human transmission through semen, breast milk, and possibly in utero

Bladder dysfunction
Burning or stabbing sensations
Cardiac impairment
Change in bowel function
Chest pain
Confusion
Depression
Difficulty thinking
Difficulty with concentration and reading
Difficulty with speech, writing
Difficulty finding words; name blocking
Disorientation: getting lost, going to wrong places
Disturbed sleep: too much, too little, fractionated, early awakening
Ears/Hearing: buzzing, ringing, ear pain, sound sensitivity
Exaggerated symptoms or worse hangover from alcohol
Eyes/Vision: double, blurry, increased floaters, light sensitivity
Facial paralysis (Bell's palsy)
Fatigue, tiredness, poor stamina
Forgetfulness
Headache
Heart block
Heart murmur
Heart palpitations
Heart valve prolapse
Increased motion sickness
Irritability
Irritable bladder
Joint pain or swelling

Lightheadedness
Mood swings
Muscle pain or cramps
Neck creaks & cracks
Neck stiffness, pain
Numbness
Pelvic pain
Poor attention
Poor balance
Poor short-term memory
Problem absorbing new information
Pulse skips
Rib soreness
Sexual dysfunction or loss of libido
Shooting pains
Shortness of breath; cough
Skin hypersensitivity
Sore throat
Stiffness of the joints or back
Swollen glands
Testicular pain
Tingling
Tremor
Twitching of the face or other muscles
Unavoidable need to sit or lay down
Unexplained breast pain
Unexplained fevers, sweats, chills or flushing
Unexplained hair loss
Unexplained menstrual irregularity'
Unexplained milk production
Unexplained weight loss or gain
Upset Stomach or abdominal pain
Vertigo
Wooziness

Babesia

(Babesiosis)

Babesia is a protozoan spread by ticks, blood transfusion, and in utero. Despite there being 13 known forms to date, current testing only looks for two of them.

Air hunger
Cough
Fatigue
Fevers
Headache

Hemolysis
Imbalance without true vertigo
Mild encephalopathy
Shaking chills
Sweats

Bartonella

(Bartonellosis, also known as cat scratch fever)

Spread by bites from infected ticks, and in utero

abnormal liver enzymes
encephalopathy
endocarditis
flu-like malaise
headache
hemolysis with anemia
hepatomegaly
high fever
immune deficiency

jaundice
lymphadenopathy
myalgias
myocarditis
papular or angiomatous rash
somnolence
sore throat
splenomegaly
weakened immune response

Ehrlichia

Bites from infected ticks

elevated liver enzymes
headaches
myalgias

ongoing fatigue
persistent leukopenia
thrombocytopenia