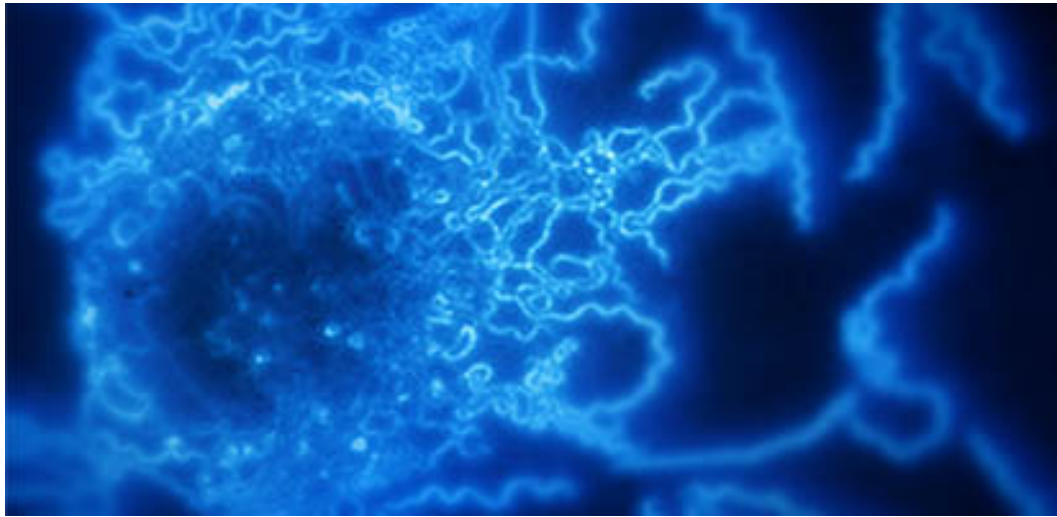


Methods of Lyme Disease Transmission

W.T. Harvey, MD, MS, MPH and Patricia Salvato, MD of Diversified Medical Practices in Houston, Texas recently published the article- Lyme disease: ancient engine of an unrecognized borreliosis pandemic. They were puzzled by the high number of patients testing positive for Lyme disease. Many of these patients



presented with "established" criteria for Lyme disease, but others did not. The fact that southeastern Texas is a 'non-endemic' region, and that many of the patients had no history of erythema migrans rash, led the doctors to question established methods for Lyme disease consideration. Careful reflection of published research leads them to conclude the following. First, the arthropod is not the exclusive vector of Lyme disease. In addition to ticks, *Borrelia burgdorferi* may be carried and transmitted by fleas, mosquitos, and mites. Second, Lyme disease is not exclusively vector-borne. Compelling evidence supports horizontal (sexual) and vertical (congenital) human to human transfer.

Other front-line physicians are arriving at the same conclusions. "Of the more than 5,000 children I've treated, 240 have been born with the disease," says Charles Ray Jones, MD. [Dr. Jones, who is the world's leading pediatric specialist on Lyme Disease, says that about 90% of his practice is comprised of patients with the disease.](#) He also states, "Twelve children who've been breast-fed have subsequently developed Lyme".

University of Wisconsin researchers state that dairy cattle and other food animals can be infected with *B. burgdorferi* and hence some raw foods of animal origin might be contaminated with the pathogen. Recent findings indicate that the pathogen may be transmitted orally to laboratory animals, without an arthropod vector. Thus, the possibility exists that [Lyme disease can be a food infection](#)

Citing limitations of laboratory tests for the detection of antibodies to *Borrelia*, a study was conducted in 1995 at the University of Vienna (Austria) for the detection of *Borrelia*. Utilizing polymerase chain reaction testing for DNA, [Borrelia was found to be present in both the urine and breast milk of patients previously diagnosed with Lyme disease.](#) A study conducted at the Sacramento (California) Medical Foundation Blood Center in 1989 states that there is evidence that [the transmission of Borrelia is possible by blood transfusion.](#) Furthermore, in 1990, a study by the Centers for Disease Control (CDC) in Atlanta, Georgia stated that the data demonstrates that [Borrelia burgdorferi can survive the blood processing procedures normally applied to transfused blood in the USA.](#)