

Lyme disease is the most prevalent tickborne infection in the temperate forested regions of northern hemisphere. Nowadays, the neuroborreliosis is the most frequent infection of nervous system . There is an increasing incidence of the disease in Czech Republic.

Since 1986 the serologic testing is available and Lyme disease is subject to obligatory reporting. During first years after introduction of laboratory testing, the incidence of Lyme disease rised mainly due to improvement of diagnosis. The EPIDAT database is developed to provide all nationally notifiable diseases, including Lyme disease. The EPIDAT data are analysed by following programs: EPI-INFO and EPIMAP.

The highest incidence of Lyme disease was recorded in 1995, it reached the value of 61,8 per thousand inhabitants. This rise was caused by high occurrence of ticks in this year. The peak of incidence was followed by its decrease until 1998, later the increasing trend was noticed again. Since 2000 the incidence does not change significantly. In 2004 it reached the value of 32,4 per thousand inhabitants.

Distribution of infection is not uniform in Czech Republic. The highest incidence is in the central bohemian region and region of Karlovy Vary. The disease occurs in lower altitude in moist climate around the rivers. This environment provides optimal conditions for life cycle of ticks. The most frequent vector of infection in Czech Republic is tick species *Ixodes ricinus*. Lyme disease shows seasonal incidence with two peaks, higher in summer and lower one in winter. Disease causes various clinical manifestations, the most frequent are dermatological, neurological and musculoskeletal symptoms. The incidence is more frequent in women and in the age between 45 and 54 years. There is no vaccine against Lyme disease, therefore the prevention is based on education of population, reduction of tick exposure and early tick removal.