

## Abstract

### Borreliosis

Lyme disease is the most - common antropozoonosis in northern hemisphere temperate regions. It`s transmitted by ticks and blood-sucking insect. It`s caused by bacteria *Borrelia burgdorferi sensu lato*. Bacteria`s unique build, high variability and adaptability cause, that this disease is very hard to diagnose and treat, and it requires multi-speciality medical approach. These bacteria can cause many health complications. They are able to infest many different tissues. They can settle in central neural system, in muscles, connective tissues, skin, blood, immune system and many organs and they can sometimes cause irreversible damage. If this disease isn`t treated, it can change to chronical form, which can be strongly restricting and lowering life-quality of the infected ones and it can in rare cases even lead to their death. This disease is treated by many different antibiotics. The supporting treatment is often applied. The number of infected people was rising in the last years and so this disease was becoming much bigger threat than it was expected. The doctors and scientists are still working on research of modern and advanced possibilities of prevention and treatment of this disease, however they are not successful in their results so much yet, and that`s why none can be sure of his safety against this disease at this time