

1: [Mol Med.](#) 2008 Mar-Apr; 14(3-4): 205-12.

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The pathogenesis of lyme neuroborreliosis: from infection to inflammation.

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This review describes the current knowledge of the pathogenesis of acute Lyme neuroborreliosis (LNB), from invasion to inflammation of the central nervous system. *Borrelia burgdorferi* (B. b.) enters the host through a tick bite on the skin and may disseminate from there to secondary organs, including the central nervous system. To achieve this, B.b. first has to evade the hostile immune system. In a second step, the borrelia have to reach the central nervous system and cross the blood-brain barrier. Once in the cerebrospinal fluid (CSF), the spirochetes elicit an inflammatory response. We describe current knowledge about the infiltration of leukocytes into the CSF in LNB. In the final section, we discuss the mechanisms by which the spirochetal infection leads to the observed neural dysfunction. To conclude, we construct a stringent concept of the pathogenesis of LNB.

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