**References**

[1] Kugeler KJ, Farley GM, Forrester JD, Mead PS. Geographic distribution and expansion of human Lyme disease, United States. Emerg Infect Dis, [J] 2015, 21:1455–1457. DOI: [10.3201/eid2108.141878](https://doi.org/10.3201/eid2108.141878)

[2] Sykes RA, Makiello P. An estimate of Lyme borreliosis incidence in Western Europe. J Public Health, [J] 2017, 39(1): 74–81. DOI: [10.1093/pubmed/fdw017](https://doi.org/10.1093/pubmed/fdw017)

[3] Schwartz AM, Hinckley AF, Mead PS, Hook SA, Kugeler KJ. Surveillance for Lyme Disease — United States, 2008–2015. MMWR Surveill Summ, [J] 2017, 66(22): 1–12. DOI: [10.15585/mmw.ss6622a1](https://dx.doi.org/10.15585%2Fmmw.ss6622a1)

[4] Li S, Gilbert L, Vanwambeke SO, Yu J, Purse BV, Harrison PA. Lyme Disease Risks in Europe under Multiple Uncertain Drivers of Change. Environ Health Perspect, [J] 2019, 127(6):1-13. <https://doi.org/10.1289/EHP4615>

[5] Mead PS. Epidemiology of Lyme disease. Infect Dis Clin North Am, [J] 2015, 29:187–210. DOI: [10.1016/j.idc.2015.02.010](https://doi.org/10.1016/j.idc.2015.02.010)

[6] Guzmán-Cornejo C, Robbins RG, Pérez TM. The Ixodes (Acari: Ixodidae) of Mexico: parasite-host and host-parasite checklists. Zootaxa, [J] 2007, 1553: 47–58.

[7] Viana DS, Santamaría L, Figuerola J. Migratory Birds as Global Dispersal Vectors. Trends Ecol Evol, [J] 2016, 31(10): 763-775. <http://dx.doi.org/10.1016/j.tree.2016.07.005>

[8] Scott JD, Scott CM. Lyme Disease Propelled by *Borrelia burgdorferi*-Infected Blacklegged Ticks, Wild Birds and Public Awareness ─ Not Climate Change. J Veter Sci Med, [J] 2018, 6(1): 8. DOI:[10.13188/2325-4645.1000035](https://doi.org/10.13188/2325-4645.1000035)

[9] Maradiaga-Ceceña MA, Llausás-Vargas A, Barguera-Heredia J, Kumate-Rodriguez J. Eritema crónico migratorio asociado a artritis. Enfermedad de Lyme o una variante. Rev Mex Reumatol, [J] 1991, 6: 61-63.

[10] Gordillo-Pérez G, Torres J, Solórzano-Santos F, Garduño-Bautista V, Tapia-Conyer R, Muñoz O. Seroepidemiologic survey of Lyme Borreliosis in Mexico City and the Northeast region of the country. Sal Pub Mex, [J] 2003, 45(5): 351-355.

[11] Tinoco-García L, Quiroz-Romero H, Quintero-Martínez MT, Rentaría-Evangelista TB, Barreras-Serrano A, López-Valencia G, Hori-Oshima S, Tamayo-Sosa AR, Rico-Diez De Bonilla O, Moro M, Vinasco J. Seroprevalence of *Borrelia burgdorferi* in Dogs from a Mexico-U.S. Border Desert Region: Pilot Study. J Animal Vet Adv, [J] 2007, 6:787-789.

[12] Meléndez-Salinas JA, Zarate-Ramos JJ, Avalos-Ramírez R, Hernández-Escareno JJ, Guzmán-Acosta G, Riojas-Valdés VM. Prevalence of Antibodies Against *Borrelia burgdorferi* in dogs from Monterrey, Mexico. J Animal Vet Adv, [J] 2011, 10: 2720-2723.

[13] Adler B (Ed.) Spirochete Biology: The Post Genomic Era. New york. 2018. Springer International Publishing. [M] DOI: https//doi.org/10.1007/978-3-319-89638-0

[14] Hamer SA, Tsao JI, Walker ED, Hickling GJ. Invasion of the Lyme Disease Vector *Ixodes scapularis*: Implications for *Borrelia burgdorferi* endemicity. EcoHealth, [J] 2010, 7(1): 47–63. DOI: [10.1007/s10393-010-0287-0](https://doi.org/10.13188/2325-4645.1000035)

[15] Eisen RJ, Eisen L, Beard CB. County-Scale Distribution of *Ixodes scapularis* and *Ixodes pacificus* (Acari: Ixodidae) in the Continental United States. J Med Entomol, [J] 2016**,** 53(2): 349–386. <https://doi.org/10.1093/jme/tjv237>

[16] Medlock JM, Hansford KM, Bormane A, Derdakova M, Estrada-Peña A, George JC, Golovljova I, Jaenson TGT, Jensen JK, Jensen PM, Kazimirova M, Oteo JA, Papa A, Pfister K, Plantard O, Randolph SE, Rizzoli A, Santos-Silva MM, Sprong H, Vial L, Hendrickx G, Zeller H, Van Bortel W. Driving forces for changes in geographical distribution of *Ixodes ricinus* ticks in Europe. Parasit Vectors,[J] 2013 6, Article1. <https://doi.org/10.1186/1756-3305-6-1>

[17] Mayne P, Song S, Shao R, Burke J, Wang Y, Roberts T. Evidence for *Ixodes holocyclus* (Acarina: Ixodidae) as a vector for Human Lyme Borreliosis infection in Australia. J Insect Sci, [J] 2014, 14(1): 271. DOI: [10.1093/jisesa/ieu133](https://dx.doi.org/10.1093%2Fjisesa%2Fieu133)

[18] Murase Y, Konnai S, Githaka N, Hidano A, Taylor K, Ito T, Takano A, Ando S, Kawabata H, Tsubota T, Murata S., Ohashi K. Prevalence of Lyme Borrelia in *Ixodes persulcatus* ticks from an area with a confirmed case of Lyme Disease. J Vet Med Sci, [J] 2013, 75(2): 215 –218. DOI: [10.1292/jv ms/12-0211](https://dx.doi.org/10.1093%2Fjisesa%2Fieu133)

[19] Divers TJ, Gardner RB, MadiganJE, WitonskySG, Bertone JJ, Swinebroad EL,SchutzerSE, Johnson AL. *Borrelia burgdorferi* infection and Lyme Disease in North American Horses: A Consensus Statement. J Vet Intern Med, [J] 2018, 32(2): 617–632. DOI:[10.1111/jvim.15042](https://dx.doi.org/10.1111%2Fjvim.15042)

[20] Littman MP, Gerber B, Goldstein RE, Labato MA, Lappin MR,Moore GE. ACVIM consensus update on Lyme borreliosis in dogs and cats. J Vet Intern Med, [J] 2018, 32(3): 887–903.DOI: [10.1111/jvim.15085](https://dx.doi.org/10.1111%2Fjvim.15085)

[21] McDaniel CJ, Cardwell DM, Moeller RB, Gray GC. Humans and Cattle: A review of bovine zoonoses. Vector-Borne Zoonot, [J] 2014, 14(1): 1–19. DOI: [10.1089/vbz.2012.1164](https://dx.doi.org/10.1089%2Fvbz.2012.1164)

[22] Martínez A, Salinas A, Martínez F, Cantú A, Miller DK. Serosurvey for selected diseases agents in white-tailed deer for Mexico. J. Wildlife Dis, [J] 1999, 33 (4): 799-808.

[23] Salinas-Meléndez JA, Ávalos-Ramírez R, Riojas-Valdez VR, Martínez-Muñoz A. Serological survey of Canine Borreliosis. Rev. Lat.-Amer. Microbiol. [J] 1999. 41:1-3.

[24] Salinas-Meléndez JA, Galván de la Garza S, Riojas-Valdés VM, Wong González A, Ávalos-Ramírez R. Antibody detection against *Borrelia burgdorferi* in horses located in the suburban areas of Monterrey, Nuevo León. Rev Latinoam Microbiol, [J] 2001, 43(4): 161 – 164.

[25]. Klempner MS, Baker PJ, Shapiro ED, Marques A, Dattwyler RJ, Halperin JJ, Wormser GP. Treatment Trials for Post-Lyme Disease Symptoms Revisited. Amer J Med, [J] 2013, 126(8): 665–669. DOI: <https://doi.org/10.1016/j.amjmed.2013.02.014>

[26]  Stanek G, Fingerle V, Hunfeld KP, Jaulhac B, Kaiser R, Krause A, Kristoferitschg W, O'Connell S, Ornstein K, Strle F, Gray J. Lyme borreliosis: Clinical case definitions for diagnosis and management in Europe. Clin Microbiol Infect, [J] 2011, 17(1): 69-79. <https://doi.org/10.1111/j.1469-0691.2010.03175.x>

[27] Montiel PG, Fuentes Vargas MG. First record of *Ixodes cookie* (Acari: Ixodidae) in Mexico. Rev Mex Biodiv, [J] 2007, 78: 205-206.

[28]  Busson L, Reynders M, den Wijngaert S, Dahma H, Decolvenaer M, Vasseura L, Vandenberg O. Evaluation of commercial screening tests and blot assays for the diagnosis of Lyme borreliosis. Diagn Micr Infec Dis, [J] 2012, 73(3): 246-251. <https://doi.org/10.1016/j.diagmicrobio.2012.04.001>

[29] Bhate C, Schwartz RA. Lyme disease: Part II. Management and prevention. J Am Acad Dermato, [J] 2011, 64(4): 654. <https://doi.org/10.1016/j.jaad.2010.03.047>

[30] Borchers AT, Keen CL, Huntley AC, Gershwin ME. Lyme disease: A rigorous review of diagnostic criteria and treatment. J Autoimmun, [J] 2015, 57: 82-115. <https://doi.org/10.1016/j.jaut.2014.09.004>

[31] Aguero‐Rosenfeld ME, Wormser GP. Lyme disease: Diagnostic issues and controversies. Expert Rev Mol Diagn, [J] 2015, 15:1–4.

[32] Sanchez JL. Clinical manifestations and treatment of Lyme disease. Clin Lab Med, [J] 2015, 35:765–778.

[33] Steere AC, Strle F, Wormser GP, Hu LT, Branda JA, Joppe W. R. Hovius JWR, Li X, Mead PS Lyme borreliosis. Nat Rev Dis Primers, [J] 2016, 2:16090. DOI: [10.1038/nrdp.2016.90](https://dx.doi.org/10.1038%2Fnrdp.2016.90)

[34] Henry B, Crabtree A, Roth D, Blackman D, Morshed M. Lyme disease. Knowledge, beliefs, and practices of physicians in a low-endemic area. Can Fam Physician, [J] 2012, 58:e289-295.

[35] Cripps PL. Veterinary education, zoonoses and public health: a personal perspective. Acta Tropica, [J] 2000, 76:77-80.

[36] Stewart C, Cowden J, McMenamin J, Reilly B. Veterinary public health. We need an integrated medical and veterinary approach. BMJ, [J] 2005, 331: 1213-1214.