The Lifespan Lyme Disease Center encourages patients to be proactive about their health and wellbeing. This includes being well informed about their illness. To supplement the information you can find on our website, this page can direct you to other reliable sources regarding Lyme disease. We hope you find this helpful!

*Good research tips: For even more information about a topic, check out the citations listed in the bibliography of each source. Usually a quick copy and paste into Google will find the desired article. To speed up your research: the abstract and discussion sections of study papers will provide you with the best synopsis of the source without all the technical information if you don’t need it.

**General Lyme and Tick Information**

1. **Description of source:** CDC detailed information about tick prevention, removal, prevalence by area, and tick-borne illnesses.

   **Link:** [www.cdc.gov/ticks/index.html](http://www.cdc.gov/ticks/index.html)

   **Citation:** "Ticks." Cdc.gov. Centers for Disease Control, 14 June 2016. Web. 28 June 2016.

2. **Description of source:** This website is written by specialists at the University of Rhode Island for local tick information. This include prevalence, tick prevention, and tick removal. Includes interesting links for creative solutions to avoid Lyme disease including a DIY tick repellant for your clothing.

   **Link:** tickencounter.org/prevention

   **Citation:** "Prevention." Tickencounter.org. University of Rhode Island, 2016. Web. 28 June 2016.

3. **Description of source:** This study analyzed 361 journal articles in depth to formulate a comprehensive review about tickborne illnesses.

Testing for Lyme Disease

4. **Description of source:** CDC explaining Lyme testing procedures (mainly two-tiered testing) and result analysis. Also lists tests NOT recommended by the CDC.

   **Link:** [http://www.cdc.gov/lyme/diagnostictesting/index.html](http://www.cdc.gov/lyme/diagnostictesting/index.html)

   **Citation:** "Diagnosis and Testing." Cdc.gov. Centers for Disease Control, n.d. Web. 18 July 2016.

5. **Description of source:** Discusses why Lyme disease is difficult to diagnose from a doctor’s perspective and describes challenges interpreting the ELISA and Western Blot tests.

   **Link:** [www.lymeresearchalliance.org/test-diagnostic.html](http://www.lymeresearchalliance.org/test-diagnostic.html)


6. **Description of source:** In depth description of what the common Lyme tests are detecting, what the tests entail, how to interpret the test, and frequently asked questions.

   **Link:** [labtestsonline.org/understanding/analytes/lyme/tab/test#how](https://labtestsonline.org/understanding/analytes/lyme/tab/test#how)


7. **Description of source:** A study describing findings that explain why Lyme testing after antibiotic treatment is not accurate.

   **Link:** [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3592055/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3592055/)

8. Description of source: A study concludes that using metabolic biosignatures to detect early Lyme disease may be more sensitive and specific than two-tier testing.

Link: [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4810808/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4810808/)


9. Description of source: Study condemning the use of CD57 counts as an indicator of Lyme disease.


10. Description of source: Study supporting the use of CD57 counts as an indicator of Lyme disease.


11. Description of source: The official notice sent out by the CDC after its 1994 conference that decided on officially recognizing two-tiered testing as the preferred method for Lyme testing. They explain the reason for their decision and specifics about serological diagnostic criteria.

Link: [www.cdc.gov/mmwr/preview/mmwrhtml/00038469.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/00038469.htm)
12. **Description of source:** Study comparing Lyme testing using the two-tiered method versus a C6 peptide ELISA. Study found results were very similar between the two tests.

**Link:** cid.oxfordjournals.org/content/47/2/188.short


13. **Description of source:** Detailed Mayo clinic analysis of Lyme testing using the two-tiered method. Includes specific procedural details from the lab and how to interpret results of testing.

**Link:** www.mayomedicallaboratories.com/test-catalog/Clinical+and+Interpretive/9129


**Taking Doxycycline**

14. **Description of source:** Taking antibiotics such as Doxycycline can leave patients susceptible to an infection called C. difficile. The Mayo clinic describes the illness and how to prevent and treat it.

**Link:** mayoclinic.org/diseases-conditions/c-difficile/home/ovc-20202264

**Citation:** "C. Difficile Infection." MayoClinic.org. Mayo Clinic, n.d. Web. 11 July 2016.

15. **Description of source:** Detailed information listing what you need to know about taking Doxycycline.

**Link:** https://medlineplus.gov/druginfo/meds/a682063.html

16. Description of source: Study demonstrates how taking antibiotics for longer than a few weeks does not prove more effective than a placebo control group. In fact, patients taking long term antibiotics were sicker because of antibiotic side effects.

Link: http://www.healio.com/infectious-disease/emerging-diseases/news/online/%7Ba31ca3f8-07c3-4684-a57f-85a3daad76e9%7D/longer-therapy-shows-no-added-benefit-for-persistent-lyme-disease-symptoms


17. Description of source: Study demonstrating that taking a small course of Doxycycline after finding an attached tick can reduce transmission of Lyme by 80%.


Misconceptions about Lyme Explained

18. Description of source: Describes the controversy surrounding long term Lyme symptoms. Explains how long term nonspecific symptoms can be used as evidence for misguided perceptions about Lyme.

Link: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4440423/

19. **Description of source**: Editorial commentary about how non-pharmaceutical methods can help alleviate post Lyme symptoms. Discusses drawbacks of treating with long term antibiotics.

**Link**: [http://cid.oxfordjournals.org/content/early/2015/04/06/cid.civ187.full](http://cid.oxfordjournals.org/content/early/2015/04/06/cid.civ187.full)


20. **Description of source**: This study analyzed the websites of facilities that advocate for alternative treatment of Lyme disease. Describes the most common alternative therapies and why they may not be scientifically validated. Discusses the reasons for so many alternative options available on the internet.

**Link**: [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490322/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490322/)


21. **Description of source**: Lyme disease as part of the anti-science movement and the damaging effect this movement has on medicine.

**Link**: [ethicsLyme.pdf](https://example.com/ethicsLyme.pdf)


22. **Description of source**: Defines chronic Lyme and explains its prevalence throughout the population while maintaining the notion that the symptoms often have other causes than persistent Lyme infection.


23. Description of source: Analysis of two studies that concluded with no evidence for persistent infection with B. Burgdorferi but confirmed a re-infection with Lyme (two separate incidences, not one persistent infection).

   Link: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311275/

   Citation: Shapiro, Eugene D. “Repeat or Persistent Lyme Disease: Persistence, Recrudescence or Reinfection with Borrelia Burgdorferi?” F1000Prime Reports 7 (2015): 11. PMC. Web. 6 Aug. 2016.

General Wellness Sources

24. Description of source: Study shows that Lyme patients actually live healthier lives in the long run, than people who have never had Lyme. Also describes the increased incidences of Lyme disease within the last few years.

   Link: http://www.healio.com/rheumatology/infection/news/online/%7Bc7e19499-c8cb-4ec2-b1f7-e4e45a4772f6%7D/lyme-patients-report-higher-qol-over-time-than-general-population


25. Description of source: Information about the Newport Hospital Sleep Clinic and their contact info, if you feel your sleeping troubles warrant medical investigation.

   Link: http://www.newporthospital.org/Sleep-Disorders-Center-at-Newport-Hospital.html


26. Description of source: CDC guidelines and information about sleep disorders. Explore options to help you sleep better and general information about the importance of sleep.

   Link: http://www.cdc.gov/sleep/index.html

27. Description of source: Comprehensive information about the dangers of smoking and the global effort to curb the use of cigarettes. Includes state and community resources for tobacco control.

Link: www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking


28. Description of source: About the mental benefits of exercise.

Link: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC474733/


29. Description of source: About how exercise promotes a healthy body.


30. Description of source: All about the CDC’s recommendations for general physical activity (remember, you may need to follow modified exercise recommendations outside of the CDC guidelines) Discuss with your doctor.

Link: https://www.cdc.gov/physicalactivity/basics/index.htm


31. Description of source: Harvard discusses the science behind antioxidants and why they are good for you.
Link: www.hsph.harvard.edu/nutritionsource/antioxidants


32. Description of source: The Mayo Clinic gives examples of how to add antioxidants to your diet.

Link: www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/multimedia/antioxidants/sls-20076428?s=7


33. Description of source: Describes the role of gut microbiota in human health and disease.

Link: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4566439/


34. Description of source: The USDA revised the Food Pyramid we all grew up with. Now, instead of a pyramid, it is a plate showing portion sizes of the food groups you should have at every meal.

Link: www.choosemyplate.gov/MyPlate


35. Description of source: The Mayo Clinic discusses how to curb your salt intake. They give examples of high sodium foods that you may not know have a lot of salt.

Link: www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/sodium/art-20045479?pg=1

36. **Description of source:** The CDC describes the opioid addiction epidemic and what can be done to stop it. This includes regulations or prescribing opioids for chronic pain which may be of interest to Lyme patients.

**Link:** [www.cdc.gov/drugoverdose/epidemic/index.html](http://www.cdc.gov/drugoverdose/epidemic/index.html)

**Citation:** "Injury Prevention & Control: Opioid Overdose." Cdc.gov. Centers for Disease Control, n.d. Web. 11 July 2016.

37. **Description of source:** Learn to recognize the symptoms of opioid withdrawal. People taking prescription medications should beware of these signs even when taking them under strict guidelines. Call your doctor if you have any of these symptoms.

**Link:** [americanaddictioncenters.org/withdrawal-timelines-treatments/opiate](http://americanaddictioncenters.org/withdrawal-timelines-treatments/opiate)

**Citation:** "Opiate Withdrawal Timelines, Symptoms and Treatment." Http://americanaddictioncenters.org/. American Addiction Centers, n.d. Web. 11 July 2016.

38. **Description of source:** Sports Illustrated addresses the problem of opioid addiction in young athletes who have been given the medication for sports injuries. This article has suggests that there must be much stricter guidelines for prescribing such strong medications.

**Link:** [www.si.com/more-sports/2015/06/18/special-report-painkillers-young-athletes-heroin-addicts](http://www.si.com/more-sports/2015/06/18/special-report-painkillers-young-athletes-heroin-addicts)


39. **Description of source:** Samhsa is a government organization dedicated to helping addicts. Their website directs you to the help centers nearest to you.

**Link:** [findtreatment.samhsa.gov](http://findtreatment.samhsa.gov)

**Citation:** Samhsa.gov. Substance Abuse and Mental Health Service Administration, n.d. Web. 11 July 2016.
40. **Description of source:** This review of scientific literature explains a clear link between opioid use and immunosuppression. Lyme patients should consider the impact of these medications on their Lyme recovery.
