

I N T R O D U C T I O N



Lyme Brain. You all know exactly what I'm referring to. It's all the horrible brain manifestations of Lyme disease and its related infections. Many a Lyme patient has said to me, "Dr. Nicola, I can live with the pain, I can handle the fatigue, but I just can't cope with feeling so stupid. I used to be a smart person." Many would happily trade a kidney to "get their brain back." It's heartbreaking, because I see the impact that this has on the quality of life of so many people.

I know for a fact that you're not stupid, you're not losing your mind (although I get that it feels that way), and even if it seems to be lost, we can help you get it back again. I have seen patients with severe Lyme Brain experience remarkable recoveries. In fact, as I sit here writing, I'm thinking of a lady named Nikki, the previous president of the Lyme Disease Association of Australia (LDAA).¹ When she had active Lyme, she experienced terribly debilitating cognitive problems. She would get in the car, drive up the street and forget where she had set off to, so she would turn around and return home. She struggled to take care of her family. Today, she's working on her Ph.D., has successfully run the LDAA and definitely has her smarts back.

Lyme Brain also makes treatment harder, doesn't it? If it's not bad enough having to take a pile of pills and potions every day, Lyme Brain seems set out to sabotage your efforts. Keeping all those pills straight seems like a Herculean task, especially when Pill X can't be taken with Pill Y, and Potion B counteracts Potion A, and Herb 1 wants to be taken five minutes away from Herb 2, and Herb 3 yet another five minutes later. Medications and supplements run out before you realize you're out, and by then, figuring out how to get refills in time takes all your effort. Life is held together by pillboxes, reminder pings and alarms, and hopefully willing family members or friends who can help keep it all straight. It's hard to stick with the

¹ Cited with permission

treatment that can help get you better when your illness takes away your capacity to stick with the treatment that can help you get better. It's a vicious cycle.

Despite all of these challenges, recovery is possible, and you can get your brain back. You may never want to embark on a Ph.D. (I don't blame you!), but being able to go to the store and remember the five items you need without a shopping list, trusting yourself to pick up your children from sports practice, not having to worry about forgetting to turn off the stove, going back to a job you loved, and maintaining a healthy social life and personal relationships are all worthy aspirations that are attainable.

Lyme Brain isn't just about cognitive deficits, either. It often involves psychoemotional elements such as anxiety and depression. In fact, the majority of my patients experience anxiety and/or depression (usually both). Some people experience panic attacks while some get so anxious that they can no longer drive. Some people develop obsessive-compulsive tendencies or suicidal thoughts, nightmares and night terrors, and rage and impulsiveness. These, too, are tremendously hard to deal with.

Despite the number of Lyme patients who experience Lyme Brain—brain fog, short-term memory loss, difficulty with focus and concentration, anxiety, depression and the host of other aspects that make up the cognitive and neuropsychiatric aspects of Lyme—there is still limited information out there as to how to help the situation. This book aims to fill that void.

Section 1 explains what is actually occurring in the brain. It helps to understand some of the mechanisms of Lyme Brain because then it's easier to understand what to do to improve them. We'll discuss the role of inflammation and neurotoxins as well as the different co-infections of Lyme and how they impact the brain. We'll also outline some of the tools available to assess brain structure and function.

Sections 2 through 6 focus on solutions: the medications, supplements, therapies and modalities that can help Lyme Brain. Which antibiotics cross the blood-brain barrier? Do supplements for brain function really work? How can I adapt my nutrition to help my brain? How can I help my brain regenerate and heal even after the infections are dealt with? All these questions will be addressed. I also look at PTSD (post-traumatic stress disorder) in Lyme patients. PTSD is typically thought of as a syndrome that results from a major trauma such as a war or a horrific accident, but Lyme patients experience PTSD, too.

Section 7 discusses other barriers that may hinder recovery from Lyme disease, including heavy metals, mold and hormone imbalance.

Section 8 discusses Lyme Brain in children. Children may manifest neurological aspects of Lyme differently than adults, resulting in autism, PANDAS, bipolar

disorder or learning difficulties. We'll take a look at the research and review some tools for helping children.

Section 9 guides you on how to put it all together and includes lists of my favorite products and protocols that can help with Lyme Brain.

Section 10 is a collection of interviews that I've done with both Lyme practitioners and patients. They share their stories, experiences and tips for helping you get well.

I hope that you find this book a valuable resource and that it propels you forward on your healing journey.

Yours in good health,

Dr. Nicola

San Diego, CA