



THE BEST KEPT SECRET IN AUTOIMMUNITY: MEET LDN

Autoimmunity is one of the fastest growing health problems today, with over 80 identified conditions and 1 in 5 people currently diagnosed with at least one of them. Conditions like Crohn's Disease, thyroid disease, multiple sclerosis and more are the result of the immune dysregulation triggered by both external and internal factors, and the effects can be wide-reaching.

As both a compounding pharmacy and functional medicine practice, we at Pioneer Health Center are continuously researching complex health conditions like autoimmunity. One research study in particular sparked our early interest in a compound called low dose naltrexone (LDN). Dr. Jill Smith, a professor at Penn State University, conducted a comprehensive research study on using LDN for Crohn's Disease and found that patients experienced an 89 percent overall improvement rate and 67 percent achieved remission using this inexpensive compounded pharmaceutical. The impressive results have spearheaded ongoing clinical trials by researchers at institutions worldwide, including right here at Pioneer Health Center.

Naltrexone was approved by the FDA in 1984, but prior to Dr. Smith's study, most of the reports in the literature on LDN were anecdotal and seemed almost too good to be true. Without much science backing the claims, I touted it as a magic pill that would soon be discounted. But when Dr. Smith's research was published, it validated much of the anecdotal evidence and began to change the face of LDN in the scientific community. I began to research it and have now been compounding LDN for over twenty years. To date, we've worked with over 400 patients taking LDN, and are seeing a widespread positive impact on autoimmunity.

How LDN Works in the Body: Multiple Mechanisms of Action Low Dose Naltrexone is designed to support immune function by upregulating the opioid system in the body. When this happens, endorphin, or "feel good" hormone, production safely increases, which may in turn block inflammatory messengers in the body, thus having a positive influence on immune function and decreasing inflammation. This can also positively impact...

- Tissue, wound, and mucosal repair
- Cell growth and inhibiting tumor growth
- T cells and natural killer (NK) cell production
- T-helper/CD4 cell production
- and more

By safely augmenting the immune system, LDN aids the body in down-regulating inflammatory cytokines (small proteins that are involved in cell signaling) and reducing inflammation and oxidative stress (cell damage). Because of the unique way in which LDN aids the immune system to restore normal function, LDN has been used in, but not limited to, the following conditions:

- Autoimmunity
- Pain disorders
- Cancer
- HIV/AIDS
- Parkinson's
- Anxiety
- Depression

LDN and Autoimmunity

Addressing Inflammation because Low Dose Naltrexone essentially teaches the immune system to behave (rather than suppressing it like conventional immunosuppressant medications do), it enables the system to restore normal function.

Autoimmune conditions can occur when unusually low levels of endorphins are present, so by stimulating endorphin production, we can effectively modulate correct immune function by stimulating T lymphocyte (or T-cell) production. This has been found to restore a more normal immune response, and as a result, can affect the progress or onset of an autoimmune condition.

With such far-reaching effects, it seemed almost too good to be true, but over the last 20 years, scientific breakthroughs and clinical evidence have proven them valid. This is evident in Crohn's disease in particular, and in our own studies, we found that over 60 percent of our own patients experienced such positive results.

Some research even shows that LDN may act directly on immune cells to stimulate or restore normal function by acting as a glial cell modulator, a topic which we explain in detail in this post. In short, glial cells are the immune cells in your central nervous system located in the brain and spinal cord that are involved in the dysregulation of pain, brain inflammation, and neurological diseases like multiple sclerosis, Alzheimer's, Parkinson's disease, Autism, ALS, infections of the brain, etc. By calming down over-activation of glial cells, LDN, like Synapsin, may be beneficial in many known neurodegenerative conditions. One of the ways it does this is by blocking what are called toll-like receptors (a concept we explain in-depth in this post), which stops the inflammatory cascade from the immune system from persisting.

LDN's Impact on Thyroid Disease and Multiple Sclerosis

Patients with thyroid disease and multiple sclerosis often have a strong autoimmune component, meaning Low Dose Naltrexone may be equally effective at addressing it. Using LDN to optimize immune function may lead to a reduction in hypothyroidism and improvement in symptoms when taken for at least 6 months, if not a year or longer. In fact, there are many Hashimoto's patients who report seeing stubborn thyroid antibodies go down as a result of using LDN, and studies have found that this success is also true for those with Hashitoxicosis—the combination of Hashimoto's and Graves Disease (TPO) antibodies. There is also significant anecdotal evidence now that supports the benefits of LDN in multiple sclerosis. In fact, one recent study showed that serum Opioid Growth factor levels are lower in those with multiple sclerosis relative to non-multiple sclerosis patients, but LDN restored their levels.

The Future of Autoimmunity Looks Positive

Despite the rapid growth of autoimmune conditions today, the promise of Low Dose Naltrexone's efficacy to improve immune modulation is encouraging. Research continues to demonstrate that LDN is a safe and promising approach to the prevention and/or treatment of many autoimmune diseases, cancer variants and neurological diseases that are due to compromised immunity. And in our own experience, it's been one of the most beneficial treatments for a wide range of autoimmune diseases.

Since LDN can upregulate endogenous opioid activity, it may also have a role in promoting stress resilience, improving emotional states, increasing energy, and positively impacting psychiatric problems including autism and depression. Due to its ability to beneficially modulate both the immune system and brain neurochemistry, it offers a new and positive therapy for millions of patients worldwide.

Contact Pioneer Health Center

As the founder of one of the first pharmacies to begin compounding LDN, and with two decades of research under my belt, I'm now lecturing all over the country on the topic of LDN. This year, I've been invited to present our research data with Dr. Nicholas Palermo, DO at the 2019 LDN International Symposium as well as the Regional Osteopathic Medical Education (ROME) Conference about LDN. If you plan to attend, follow us on Facebook or Instagram and let us know you will be there or to set up a meeting with myself.
