

Low-Dose Naltrexone for Autoimmune Diseases and Fibromyalgia? The Unfinished Story

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"Some leading experts believe that low-dose naltrexone (LDN) holds great promise for the treatment of millions of people suffering with autoimmune diseases, central nervous system disorders, and even cancer and HIV/AIDS." - Joseph Mercola, MD

This information on the growing body of low-dose naltrexone research is excerpted with kind permission from Dr. Mercola's educational natural health website (Mercola.com). It was first published Sep 19, 2011; see footnote for links to more.*

One of the Rare Drugs that Actually Helps Your Body to Heal Itself

It is not often that I advocate the use of prescription drugs, but low-dose naltrexone (LDN) is one of those rare exceptions that may hold the promise of helping millions of people with cancer and autoimmune diseases like rheumatoid arthritis, multiple sclerosis, Parkinson's, fibromyalgia, and Crohn's disease, just to name a few.

As a pharmacologically active opioid antagonist, LDN ([used 'off-label' in very small doses](#)) works by blocking opioid receptors, which in turn helps activate your body's immune system.

How LDN Harnesses Your Own Body's Chemistry to Fight Disease

The [latest research in Experimental Biology and Medicine](#) just confirmed that LDN does in fact target the opioid growth factor (OGF) / opioid growth factor receptor (OGFr) pathway to inhibit cell proliferation. Previous research by [professor Ian S. Zagon](#) of The Pennsylvania State University, who also conducted the [Experimental Biology and Medicine](#) study, found that OGF regulates the growth of cancer cells, and all cancer cells use the OGF-OGFr pathway in growth regulation. It is through this mechanism that LDN is thought to exert its profound inhibitory effect on cancer growth.

Further, LDN also works with your body's immune system through its interactions with your body's endorphins.

Though most commonly referenced in relation to your mood, endorphins also play a role in pain relief, immune system regulation, growth of cells and angiogenesis (the growth of blood vessels that feed a tumor).

Typically, LDN is taken at bedtime, which blocks your opioid receptors, as well as the reception of endorphins, for a few hours in the middle of the night. This is believed to up-regulate vital elements of your immune system by increasing your body's production of met-enkephalin and endorphins (your natural opioids), hence improving your immune function.

In addition to cancer, LDN has shown promise for the treatment of the following diseases:

Hepatitis C
Diabetic neuropathies
Lupus
Dermatomyositis (an inflammatory muscle disease)
Ulcerative Colitis
Multiple sclerosis
Autism
Crohn's disease
Chronic fatigue syndrome (ME/CFS)
Alzheimer's disease
HIV/AIDS
Hashimoto's thyroiditis
Irritable bowel syndrome (IBS)
Parkinson's disease
And Fibromyalgia [1,2,3]

How can one substance impact so many different diseases? As written on the non-profit Web site LowDoseNaltrexone.org , which is an excellent resource for more information:

"The disorders listed above all share a particular feature: In all of them, the immune system plays a central role. Low blood levels of endorphins are generally present, contributing to the disease-associated immune deficiencies."

Impressive Results in Cancer Treatment

In 1985, [Dr. Bernard Bihari](#) discovered LDN enhanced patients' response to infection with HIV, the virus that causes AIDS. Years later he found that his patients with cancer and autoimmune disease also benefited from LDN.

Dr. Bihari has reportedly treated more than 450 cancer patients [with LDN with promising results](#), including cancers of the bladder, breast, liver, lung, lymph nodes, colon, and rectum. According to Dr. Bihari, nearly a quarter of his patients had at least a 75% reduction in tumor size, and nearly 60% of his patients demonstrated disease stability. He believes LDN's anti-cancer mechanism is likely due to an increase in the:

- Number and density of opiate receptors on the tumor cell membranes, making them more responsive to the growth-inhibiting effects of the already present levels of endorphins, which in turn induces apoptosis (cell death) in the cancer cells
- Absolute numbers of circulating cytotoxic T cells and Natural Killer cells, as well as killer cell activity

An impressive study released earlier this year exemplifies LDN's potential anti-cancer effects, in this case [to treat ovarian cancer](#). The study found:

- LDN administered for six hours every two days reduced DNA synthesis and cell replication in tissue culture.
- Exposure to LDN in combination with cancer drugs had enhanced anti-cancer action.
- Mice with established ovarian tumors treated with LDN had repressed tumor progression by reducing DNA synthesis and angiogenesis -- but not altering cell survival, indicating it is non-toxic.
- LDN combined with a chemotherapy drug, cisplatin, alleviated the toxicity associated with cisplatin.
- LDN treatment upregulated the expression of the opioid growth factor, which is the only opioid peptide that tends to inhibit cell growth of ovarian cancer cells.

Says [Dr. Burton M. Berkson, MD](#), who has attested to achieving phenomenal results with low-dose naltrexone in both cancer patients and those with autoimmune diseases:

"It is difficult for many to believe that one drug can accomplish so many tasks. But LDN does not treat symptoms as most drugs do. It actually works way 'upstream' to modulate the basic mechanisms that result in the disease state."

Your Doctor Probably Doesn't Know About Low-Dose Naltrexone

LDN has been an FDA-approved drug for over two decades, conventionally used to treat drug- and alcohol addiction at doses of 50mg to 300mg. Much lower doses (3 to 4.5 mg) are used for LDN's immunomodulating properties as discussed above, but it has not yet been submitted for FDA approval at this low dose. None of the pharmaceutical giants back it, as at an average price of \$15 to \$40 for a month's supply, the income potential isn't very promising.

This means there are no friendly sales reps visiting your doctor talking about the potential benefits of this drug in very low doses, and as a result very few physicians are aware of LDN. So, if your physician is not familiar with LDN, you will need to bring it up to him or her, or, alternatively, seek a health care provider who is already knowledgeable at using LDN as a form of treatment. There are a number of pharmacies and compounding pharmacies in the United States and Canada that are reliable sources of the compound in low-dose form.

CAUTION: Important LDN Points to Consider if You Use It

- Avoid slow-release (SR) or timed-release naltrexone. You want to be sure the LDN you receive is in unaltered form that allows you to receive the full dose quickly. Slow-release formulas may not give you the full therapeutic effects.
- Be aware of inactive fillers. Part of the LDN capsule will contain a "neutral" filler material. However, there is some evidence to suggest that calcium carbonate as a filler could interfere with the absorption of LDN. So to be on the safe side, avoid LDN capsules that contain calcium carbonate fillers.

Ideally, if you are interested in using LDN as a potential treatment consult with a knowledgeable health care practitioner who can guide your therapy and also help you find a reliable compounding pharmacy.

* Source:

Dr. Mercola is the founder of the world's most visited natural health web site, Mercola.com. You can learn the hazardous side effects of OTC Remedies by getting a FREE copy of his latest special report [The Dangers of Over the Counter Remedies](#) by going to his [Report Page](#).

1. [Low-Dose Naltrexone Reduces the Symptoms of Fibromyalgia](#)" by Sean Mackey, et al., Apr 22, 2009. See also ["Inexpensive drug naltrexone appears to relieve fibromyalgia pain in Stanford pilot study."](#)
2. A second, longer term fibromyalgia trial at Stanford by Mackey et al., was recently completed but is not yet published: See [ClinicalTrials.gov](#) listing for ["Effects of Low Dose Naltrexone in Fibromyalgia."](#)
3. A clinical trial to characterize the ["Role of the Endogenous Opioid System Underlying Modulation of Experimental Pain,"](#) employing naltrexone in patients with temporomandibular disorder (TMD), is currently (Dec 2011) recruiting participants at the University of Florida.

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