# LDN 2020 Dosing Information for prescribers

Naltrexone Dosing Nomenclature:

"Ultra Low Dose" when given daily in microgram dosing – dosed twice daily "Very Low Dose" when given in daily-dose of less than 0.1-0.5 mg "Low Dose" when given in daily-dose less than or equal than 4.5 mg "Moderate Dose" when the daily-dose is less than 25mg "High Dose" when given in daily amounts of 50mg or more

LDN (Low-Dose Naltrexone) is compounded in various forms in the US. The LDN Research Trust works closely with compounding pharmacies and qualified pharmacists to ensure stable and safe LDN.

https://www.ldnresearchtrust.org/ldn-pharmacists

LDN is not covered by commercial insurances, but an affordable 3-month supply can be obtained from a Compounding Pharmacy. LDN is prescribed used a variety of delivery methods, including capsules, liquids, and topical creams. Liquid LDN allows for titration of dosing from 0.5mg to 4.5mg, and everywhere in between. LDN sublingual drops are best for patients with swallowing difficulties, or who do not experience any benefits from ingested, oral-liquid formulations, as sublingual LDN-drops are absorbed directly through the oral mucosa. This allows for faster absorption and can reduce GI side effects. LDN capsules can be made from 0.5mg to whatever dose the prescribers would prefer. Fillers can vary from pharmacy to pharmacy but generally include sucrose, Avicel, or a probiotic – depending on a patient's individual sensitivities. LDN tablets can be compounded and scored so doses can be easily titrated. LDN Topical Cream is normally used for children.

## Prescribing regimen

Autoimmune diseases ("Go-Low, Go-Slow"): Start slowly and build up slowly: 1mg daily for 14 days increasing by 0.5/1mg every 2 weeks until at 4.5mg or highest tolerated dose at or above 3mg.

Cancer: 1.5mg daily for 7 days increasing by 1.5mg weekly until on 4.5mg for 7 days. Once stable on dose of 4.5mg for 7 days - start alternating 3 days on 3 days off if indicated.

Chronic Pain: Start slow and build up slowly: 1mg daily for 14 days increasing by 0.5/1mg every 2 weeks until at 4.5mg or highest tolerated dose at or above 3mg.

Fertility/Pregnancy: Start slow and build up

slowly: 1mg daily for 14 days increasing by 0.5/1mg every 2 weeks until at 4.5mg or highest tolerated dose at or above 3mg.

Anxiety/Depression/PTSD/TBI: Start slow and build up slowly: 1mg daily for 14 days increasing by 0.5/1mg every 2 weeks until at 4.5mg or highest tolerated dose at or above 3mg.

Children: Children under 40kg 0.1mg / kg start at 0.1mg and increase over a period of 4 weeks to calculated dose. Creams have little published evidence of efficacy, but are available for topical administration. Children >40kg—treat as adult. In children take special care that the status as an unlicensed medicine is well known by family members.

Pets: Doses of up to 15mg daily have been used in dogs. Time of day: Same time every day; day or night is irrelevant.

### **Drug compatibility**

Biologics: compatible as long as being monitored and stable before LDN initiation with Daclizumab (Zinbryta), Dimethyl fumarate (Tecfidera) Fingolimod (Gilenya), Interferon beta-1a (Avonex, Rebif) Mitoxantrone (Novantrone), Natalizumab (Tysabri) Ocrelizumab (Ocrevus), Peginterferon beta-1a (Plegridy) Teriflunomide (Aubagio), Glatiramer acetate (Copaxone, Glatopa) Interferon beta-1b (Betaseron, Extavia), Tetracyclines, Aminoglycosides, Compatible with caveats.

Steroids: (Prednisone/Methylpred) as long as daily dose is <20mg equivalent prednisolone and not being used for organ replacement anti-rejection therapy. Dexamethasone at any dose as long as it is being monitored by oncology

Unless described or cautioned, all other prescription medications are compatible. Short-acting painkillers like co-codamol/tramadol leave 4-6 hour gap before LDN. Use LDN with caution while using Ketamine. Patients on active clinical trials and Anti–Tumour Necrosis Factor: Not compatible.

SR Morphines or analogs: MST, OXYCONTIN, DIPIPANONE, and FENTANYL

Anti rejection drugs, Anti- Tumour Necrosis

Factor, PD1 inhibitors (Opdivo and Keytruda and all in class) Anti cancer vaccines—CAR-T and equivalent plus all in class.

### Patient inclusion criteria

Does the patient have a disease listed on the LDN Research Trust website as currently being treated, or is their disease autoimmune in nature? No blood tests, LFT or renal function tests are routinely required due to the low dose prescribed.

### Patient exclusion criteria

Concomitant opiate administration increases risk of induced withdrawal. Contraindicated in sustained release opiates or high doses. Switch to alternative pain control and/or leave 4-6 hour gap between opiate and LDN. Cautionary use with short acting opiates. Caution with Alcohol and Tramadol.

### **Patient special considerations**

- a. Hashimotos thyroiditis patients may require closer titration and testing of T3/ T4 levels every 4-8 weeks during initiation phase.
- b. CFS/ME patients often experience flu like symptoms and may need slower titration. If exacerbation of symptoms, decrease dose until able to tolerate titrate accordingly. MS patients often experience worsening of MS symptoms in the first 8 weeks.
  - This is normal and is often a sign of good long-term response.
- c. LYME patients on multiple antibiotics and DMARD agents should seek careful advice from and work with experienced providers and pharmacists before initiating LDN.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6313374/

# Which diseases are being treated with Idn

This list is not exhaustive and patients are directed to the LDN Research Trust website for more information www.ldnresearchtrust.org/conditions

Autoimmune Hepatitis Inflammatory Bowel Disease Multiple Sclerosis

CFS/ME

Complex Regional Pain Syndrome (CRPS)

Lyme Disease

Hashimoto's Thyroiditis

Graves' Disease

Parkinson's Disease

Diabetes Type I

Vitiligo

Scleroderma

**Psoriasis** 

**Anxiety and Depression** 

Fertility (via NAPRO Dr. Boyle – use for

reference below)

**PCOS** 

Melanoma

Nerve Pain

Glioblastoma

**Esophageal and Oral Cancers** 

Non-Small Cell Cancer

**Breast Cancer** 

Multiple Myeloma

Lymphoma

**Ovarian Cancer** 

Renal Cell Cancer

Colorectal Cancer

**Duodenal and Stomach Cancer** 

**Uterine Cancer** 

**Hepatic Cancer** 

PTSD

**PMDD** 

**PCOS** 



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