



## LDN Frequently Asked Questions

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### **What is LDN?**

LDN stands for “Low Dose Naltrexone”. Naltrexone is a drug that blocks the effects of drugs called opioids. Codeine, morphine, heroin, hydromorphone, oxycodone and methadone are examples of opioids. Naltrexone has been used as a treatment for addiction to opioids and also to alcohol.

Naltrexone comes in a 50mg tablet, but it has been used in low doses of 3-4mg a day by Dr. Bernard Bihari (a neurologist in New York) for treatment of various immune diseases as well as cancer. This is why it is referred to as “low dose” when it is used as a cancer treatment.

LDN works by boosting the levels of a natural opioid in the body called OGF (opioid growth factor). LDN blocks the OGF receptors (also called zeta receptors) temporarily, which triggers the body to make more OGF to counteract the blocking effect. It has been discovered that many cancers respond to the increased levels of OGF, and their growth can be stopped or slowed down.

OGF can be administered directly instead of LDN, but it must be given by injection, and is much more costly.

### **Does LDN really work?**

Dr. Bihari has treated about 450 cancer patients with LDN, and he reports that:

- over 270 (60%) had significant benefits from LDN
- 86 of those (25%) “have shown objective signs of significant tumor shrinkage, at least a 75% reduction.”
- 125 patients (35%) “have stabilized and/or are moving toward remission.”

(Source: [www.ldninfo.org](http://www.ldninfo.org))

Here is a list of the cancer types which have shown a response to LDN:

- Bladder Cancer
- Breast Cancer
- Carcinoid
- Colon & Rectal Cancer
- Glioblastoma
- Liver Cancer
- Lung Cancer (Non-Small Cell)
- Lymphocytic Leukemia (chronic)
- Lymphoma (Hodgkin's and NHL)
- Malignant Melanoma
- Multiple Myeloma
- Neuroblastoma
- Ovarian Cancer
- Pancreatic Cancer
- Prostate Cancer (untreated)
- Renal Cell Carcinoma
- Throat Cancer
- Uterine Cancer

(Source: [www.ldninfo.org](http://www.ldninfo.org))

Dr. Ian Zagon and other researchers at Pennsylvania State University have conducted extensive research with OGF in cell cultures and rats implanted with human cancer cells. They have shown that many cancers including colon, pancreatic, squamous cell, neuroblastoma and renal cell respond to OGF treatment. They have also shown that OGF combined with chemotherapy (5-FU, gemcitabine, paclitaxel) appears to work better than chemo or OGF alone.

In a preliminary Phase I human study conducted by Dr. Zagon, OGF was used to treat 16 patients with advanced pancreatic cancer. Two patients had complete disappearance of liver metastases, and survival was roughly doubled when compared to patients who receive standard chemotherapy with 5-FU or gemcitabine (*Anti-Cancer Drugs 15:203-209 Lippincott Williams & Wilkins*).

In addition, patients treated with OGF were able to maintain good pain control without increasing their pain medications over several months.

### **Is LDN safe?**

Naltrexone is FDA approved and Health Canada approved. It is not generally accepted as a cancer treatment due

to the limited amount of human research. Use of LDN in cancer is considered “off-label”. The safety profile of naltrexone is excellent when prescribed by an experienced physician. The main side effects from this drug are insomnia or vivid dreams. If it is used improperly in patients taking opioid medications, it can result in a serious withdrawal reaction (sweats, chills, anxiety, vomiting, body pains).

OGF is a safe naturally-occurring substance found in the body, and its use in cancer is also considered “off-label”. In the human Phase I trial at Penn State University, the most serious side effect of OGF was a drop in blood pressure. This only occurred if OGF was administered i.v. and was preventable by changing the speed of infusion.

### **Why are these drugs not being used more?**

Most doctors are not aware of the promising data on cancer treatment with LDN. It is also difficult to prescribe off-label medications (like LDN) for cancer due to the large number of regulations that must be followed. Since LDN is off patent, there is little motivation to conduct expensive Phase II and Phase III trials which would lead to its official approval as a cancer drug.

### **Is LDN available?**

Yes. Patients of Medicor Cancer Centres may be prescribed LDN. Medicor has made available a capsule and liquid formulation of naltrexone. We only use pharmaceutical grade medications. We have clearance from all the relevant Federal and Provincial regulatory bodies to prescribe LDN off-label for cancer therapy.

### **Do I qualify for LDN treatment?**

We are accepting new patients with a documented diagnosis of cancer (any type) who:

- a. have failed conventional, scientifically proven treatments
- b. have been told by their doctor that there is no safe or effective treatment for their cancer
- c. are waiting to start conventional treatment, and would like to do something in the interim
- d. have been treated for cancer, and would like to prevent recurrence
- e. are presently receiving chemotherapy and would like to boost their immune function

### **I have read about some pharmacies making low quality LDN. What is Medicor’s LDN quality control?**

At Medicor, quality of medication is always a top concern. Our LDN capsules are randomly tested by an independent lab to ensure the highest quality, because errors can occur when a low strength medication is compounded. Testing of our first batch of LDN capsules demonstrated a 97% accuracy of the dose. We only use Avicel filler material to prevent delayed release of the medication (which could reduce its effectiveness).

### **What is the cost?**

Naltrexone treatment at Medicor is about \$21 per week for capsules (syrup is slightly higher). During the course of treatment, all medically-necessary doctor’s visits, blood tests and imaging are provided/arranged at no cost to the patient (refers to Canadian patients only).

It may be possible to obtain inferior quality LDN at a lower cost because the LDN is not quality-controlled, manufactured in a 3<sup>rd</sup> world country, or is not certified pharmaceutical grade. We do not recommend such products that may compromise your health.

### **What is the duration of treatment?**

In order to determine if LDN is effective in treating your cancer, we recommend at least 3 months of treatment. If a patient responds to the drug, their therapy may continue indefinitely.

### **How do I become a Medicor patient?**

Please obtain your pathology report (confirming the diagnosis of cancer), your latest CT scan or MRI (if applicable), and your latest blood test report. If you do not have a pathology report (you did not have a biopsy), we require your specialist’s notes confirming the diagnosis of cancer.

You can call us at (416) 227-0037 to make an appointment to discuss your individual case. You can also contact us through our website at <http://www.medicorcancer.com>. Patients are required to pay for the medication, as it is not covered by Ontario Drug Benefits.