Choices

Low Dose Naltrexone

Read me...
Low Dose Naltrexone (LDN)

Naltrexone is a drug developed initially to treat addiction to opiate-based drugs, such as heroin or morphine. It belongs to a class of medications called opiate antagonists (1).

Naltrexone delivered in lower doses – Low Dose Naltrexone (LDN) – has been used in the USA to treat the symptoms of autoimmune conditions, such as multiple sclerosis (MS), since 1985, and more recently has been used in Europe and the UK (1).

The low dose method of taking naltrexone was devised and developed by the late Dr Bernard Bihari, from New York. Dr Bihari was qualified in Internal Medicine, Psychiatry and Neurology (1).

LDN is used ‘off label’ as a treatment for the symptoms of many conditions including Crohn’s disease, fibromyalgia, chronic fatigue syndrome and Ulcerative Colitis – conditions with an autoimmune origin, or potential autoimmune origin (2).

Research into LDN

There have been many studies into the safety and effectiveness of LDN as a treatment for MS, mostly small trials, with mixed results.

A six-month phase II pilot trial of 40 people with primary progressive MS was conducted by Dr M Gironi with the main purpose of looking at safety and tolerability. This study found Low Dose Naltrexone to be well-tolerated by the patients who also reported an improvement of their symptoms, particularly spasticity, pain, fatigue and depression. There were also reported improvements to quality of life outcomes (4).

How naltrexone works

As an opiate antagonist, naltrexone is thought to inhibit endorphins – the body’s natural painkiller. It is believed that by inhibiting endorphins, the body reacts by producing more. This increase in endorphins reduces pain and increases a sense of wellbeing. Once the LDN has been processed by the body, the elevated endorphins produced as a result can now act together with the receptors and assist in regulating cell growth and immunity (3).
Another 17-week randomised trial was conducted in 2010 titled ‘The effect of Low-Dose Naltrexone on quality of life of patients with multiple sclerosis: a randomised placebo-controlled trial’. In this trial some people were given LDN, and some a placebo and it looked into the effects of LDN in relation to quality of life. Ninety-six people were enrolled in the trial – some with relapsing remitting MS and some with secondary progressive MS. This trial demonstrated the safety of LDN. However, the results on LDN’s effect on quality of life (as measured by physical and mental health) was not clearly proven, with no statistically significant differences shown between the LDN-dosed group and the placebo group (5).

A small scale study titled ‘Pilot trial of low-dose naltrexone and quality of life in multiple sclerosis’ was published in August 2010 to evaluate the efficacy of 4.5mg of naltrexone, taken each evening over an eight week period, on the quality of life of people with MS. Eighty participants with an MS diagnosis were enrolled, and 60 subjects completed the trial. The high rate of subject dropout and data management errors reduced the trial's statistical influence. The study found that LDN was well tolerated and serious adverse events did not occur during the trial. LDN was associated with significant improvement on a mental health quality of life measure. The trial concluded that LDN significantly improved mental health quality of life and suggested that further studies with LDN in MS were warranted (6).

Accessing LDN in the United Kingdom

Naltrexone is licenced and used in the UK to manage opiate dependency (7), but LDN has not been licensed for the treatment of MS symptoms by the National Institute of Health & Care Excellence (NICE) and is not widely recommended for use to treat people with MS within the NHS. The use of LDN to manage MS symptoms is sometimes described as ‘off-label’ (8).

Many GP’s and neurologists are cautious, given the guidelines within the NHS, about prescribing LDN for the treatment of MS symptoms (9).

GP’s are often unfamiliar with LDN and the LDN Research Trust have published a useful factsheet that may be helpful. If you are considering LDN, the pack contains useful information for your GP or
prescribing clinician. If you are able to obtain a prescription for LDN from your GP, you will be able to get LDN dispensed at the standard prescription rate. As LDN is unlicensed, your GP may refuse to prescribe it and you may need to gain a prescription privately (10).

‘It took many years for my consultant to agree to prescribe it. It was the MS nurse who finally persuaded her that it was helping patients in the USA. My own GP had to present a case for prescribing it. I still had to get the prescription from Scotland. I now get it on my prescription and have delivered from my local chemist. It has been a long slog trying to get to this state of affairs.’

If you are unable to obtain an NHS prescription from your GP, your GP may be willing to write you a private prescription but will make a charge. You could also get in touch with a private specialist practice or one of the online GP services. You will be likely to asked to provide them with a letter from your GP or neurologist confirming that you have MS, a summary of your medical history, including any other conditions you live with, and any existing medication you take.

‘I have a repeat prescription for LDN from a brilliant NHS Doctor who had to fight to allow me to have it. She has taken full responsibility for prescribing it to me. I send the prescription to Dickson chemist in Scotland.’

If you have a private prescription you can obtain LDN from a specialist pharmacy. Dickson Chemist, based in Glasgow, have been prescribing LDN for some time and their lead pharmacist is also an advisor to the LDN Research Trust. You can read more about how to gain LDN in the LDN Research Trust’s factsheet (10).

‘My LDN is sent directly from Dickson chemist in Scotland after my neurologist forwards a prescription, but it is a private one so has to be paid for.’

It is important to note that LDN obtained from sources other than a prescribing chemist cannot be guaranteed to contain LDN, or be safe. This is particularly true of LDN obtained from unregulated sources on the internet (10).

How to take LDN

According to the LDN Research Trust, the majority of people using LDN will have a positive impact on symptoms quite quickly after starting treatment. They also say that in less than 10% of people with MS that are treated, increased symptoms may be more severe or more prolonged than usual, lasting sometimes for several weeks. Rarely, symptoms may persist for two or three months before the appropriate beneficial response is achieved.
Your prescribing doctor will usually start the treatment of LDN at a very low dose and increase this gradually, making sure any increase does not cause some of the more common adverse effects. If you do experience any unpleasant side effects after starting LDN, talk to your prescribing doctor about reducing the dose for a period, before increasing it again.

Some of the common initial side effects from taking LDN are increased fatigue, sleep disturbance (if taken at night time) and increased spasticity however many people starting on LDN do not experience any side effects.

LDN is most commonly administered in liquid form. It is taken with a syringe of the same type used to give medications to infants. LDN is also available as a capsule at 3mg and 4.5mg doses or as sublingual drops, which are a higher dose to liquid LDN and are used by people who have trouble swallowing. The drops are placed under the tongue with a dropper.

**Special precautions**

It is strongly suggested by the LDN Research Trust that you should talk with your GP, MS nurse or neurologist if you are taking herbal medicines, or multiple medications or if you have renal or liver failure. If you experience liver issues you may need to be regularly monitored with additional blood tests.

According to the LDN Research Trust, LDN is compatible with steroids and some of the disease modifying treatments (DMT) for MS. If you are taking a DMT and are planning to start LDN it is suggested that you talk to your MS nurse or neurologist before starting LDN. Some medicines are not compatible with LDN – particularly opiate-based painkillers (such as morphine).

If you are considering taking LDN, you should provide the prescribing doctor with your full medical history.

If you choose to start treatment with LDN please report any untoward or adverse effects immediately to your prescribing doctor so the treatment process may be re-assessed and modified if necessary.

**Further information**

If you are considering using LDN and wanted to do some further reading, then you could start with ‘The LDN Book’ edited by Linda Elsegood. In 2016 the editor of New Pathways magazine reviewed the book and said that Elsegood had gathered together a host of experts on the subject, all of whom had written in a warm and engaging way. They felt that although MS had to share a chapter with lupus the information was exhaustive, covering many facets of MS without being patronising or boring and explained what LDN could do and how it might be doing it.
(11). The book is available to purchase online from a variety of retailers.
How we create our Choices leaflets

MS-UK believes we must listen to the voices of people affected by multiple sclerosis to shape the information and support we provide. It is these people that bring us perspectives that no one else can give.

For every Choices leaflet we produce, MS-UK consults the wider MS community to gather feedback, and uses this to inform content. All of our Choices leaflets are then reviewed by the MS-UK Virtual Insight Panel before they are published.

Thank you to everyone affected by MS who made this leaflet possible.

Sources

2. What is LDN Used for?, LDNscience.org is a public information project of the MedInsight Research Institute. Accessed 10 October 2018. www.ldnscience.org/ldn/what-is-ldn-used-for