## Low Dose Naltrexone

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There has been quite a lot of publicity and research about this drug, as a possible option for those suffering from ME/CFS. It is an opioid receptor antagonist.

This drug is nothing new – it has been around for a very long time. Its main use has been for addicts, to whom it is prescribed to help them curb their addiction (opioids and alcohol) – and it works well for these people. However some rheumatological studies, more than 10 years ago did find it had some real benefit in small doses to combat chronic rheumatological pain – which included fibromyalgia. Innevitably, the ME/CFS community linked onto this claim.

# Background research:

In the central nervous system glial cells play an important role in the immune system. They are frequently shown to be overactive and "switched on" in ME/CFS.

The research team headed by Sonya Marshal-Gradisnik and Don Staines at Griffith University, Qld have shown that LDN does in fact quieten down the microglial activity in the brain in those with CFS. It also has the effect of restoring impaired transient receptor potential melastatin 3 (TRPM3) ion channel function in natural killer cells from ME/CFS patients. They had found that TRPM3 impairment affects the way calcium moves in and out of every cell in the body, thus seriously affecting cell function. This can explain why so many systems of the body can be affected. It should be mentioned that taking extra or less calcium makes no difference to this activity.

A quote from Jarred Younger and his team in Birmingham Alabama had earlier found that, to quote: "LDN showed reduction of several key pro-inflammatory cytokines and symptoms. The potential role of LDN as an atypical anti-inflammatory medication should be explored further. clinical research to date suggests that LDN is a promising treatment approach for chronic pain conditions thought to involve inflammatory processes. The clinical data supporting its use are very preliminary, and more research is needed before the treatment approach can be widely recommended. Critical parameters such as dosing still need to be refined. LDN may emerge as the first of many glial cell modulators that could be used to treat chronic conditions, with more specifically targeted medications developed in the future. As conventional anti-inflammatories have poor blood brain-barrier permeability, we expect centrally active immune modulators to be an area of interest in the future".

The drug seems to be very safe, and is used "off-label" to treat ME/CFS. Side effects include nausea and insomnia. Some people cannot tolerate these side effects even at minimal dosage. Other medication and supplements that the person is taking needs to be reviewed too, to avoid drug interactions. There have been occasional allergic reactions.

### How to take low dose naltrexone:

The usual starting dose is 1mg - 1.5mg daily, (tablet or capsule) and this can be increased gradually depending on response and any side effects experienced. e.g. the dose can be

increased by 1-1.5 mg every few weeks to a maximum of 4.5 mg. Benefits can take a while to show. The dose should be taken once daily.

Some find if they suffer insomnia as a side effect, they do better to take it in the morning, while those who feel mildly sedated, do better to take it at night.

Here in New Zealand, naltrexone is a prescription drug, and is not funded so has to be paid for. It may need to be made up by a specialised compounding pharmacy. Some local pharmacists can make up the prescription, or can make arrangements to send to a compounding pharmacy. Courier fees may apply also.

#### **References:**

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