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# Low Dose Naltrexone

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# Disclosures

- None

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# Objectives

- Introduction to Low Dose Naltrexone (LDN)
- Understanding Mechanism of Action of LDN
- Indications and Contraindications for Prescribing

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# What is Low Dose Naltrexone?

- Naltrexone is an opioid antagonist which has traditionally been used for opioid and alcohol dependence, addiction
- Was found that a low dose of this medication potentially had a smaller effect with other a beneficial downstream effect for the body
- Has been used in a variety chronic conditions such as autoimmune conditions, multiple sclerosis, weight loss, cancer, PCOS, fertility, and chronic pain conditions

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# How does it work?

- Temporarily binds to opioid receptors (at lower dose) as opposed to tight binding (higher doses)
- By blocking the receptor temporarily, induces increased production of endogenous opioids in the body
- Acts at TLR-4 receptors participating in immunomodulation
- Acts centrally to reduce cytokines and reduce inflammation in tissues that can increase pain

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# Who does it work for?

- Studied in different inflammatory conditions

- Studied in
  - Fibromyalgia
  - Multiple sclerosis
  - Crohn's disease
  - Complex regional pain syndrome or AMPS
  - Neuropathy or neuropathic pain symptoms
  - Other chronic pain syndromes
  - Long Covid symptoms

- Chronic conditions that have possible underlying chronic inflammation, immune dysregulation, and central sensitization

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# Who does it work for?

- Benefits in other symptoms:
  - Pain sensitivity
  - Fatigue
  - Cognitive disruption
  - Sleep
  - Mood disturbance
  - Malaise

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# Who Doesn’t It Work For?

- Chronic pain from mechanical or tissue damage
- Fibromyalgia – moderate success
- Patients on chronic opioids

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# Dosing?

- FDA approved dosing for addiction – 50-100 mg
- Low dose – 1.5 mg to 4.5 mg
- Can be started lower, can go as high as 6 mg

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# Side Effects

- Vivid dreams
- Nausea
- Dizziness
- Liver irritation (doses > 300 mg/day)

- Very low side effect profile (for the most part)

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dosing is daily and can be timed at patient's preference. Some do well with AM dosing as it can be energizing or the vivid dreams ; some cite that night time is better to improve body's pro

# Dosing?

- Titrate up to mitigate side effects and assess response
- No need to taper off
- Recommend stopping 48 hours or ideally a week before a surgery with planned opioid use
- Can restart prior dosing
- Dosing is daily – can be am or night time

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# Questions?

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