

PRESCRIPTION MONOGRAPH

Compounded Active Ingredients: NAD⁺

Form: Nasal Spray

Drug Class:

- Nicotinamide adenine dinucleotide (NAD⁺) is recognized as a vital coenzyme present in all living cells

Mechanism of Action¹:

NAD⁺ is a coenzyme central to cellular metabolism. It functions as an electron carrier in redox reactions and is intended to play a critical role in:

- ATP production via mitochondrial oxidative phosphorylation
- DNA repair (through activation of PARP enzymes)
- Sirtuin activation, influencing aging, inflammation, and metabolic regulation
- Neurotransmitter modulation, especially in detox and neurodegenerative pathways

When administered exogenously, NAD⁺ is intended to replenish intracellular stores, enhance mitochondrial function, and support cellular repair.

Indications Commonly Prescribed For:

- Treatment of pellagra (severe niacin deficiency)
- Adjunctive treatment in substance use detox (alcohol, opioids, etc.)
- Anti-aging and longevity protocols
- Cognitive enhancement and neurodegenerative disorders (e.g., Alzheimer's)
- Chronic fatigue syndrome, fibromyalgia
- Athletic recovery and cellular repair

Before Use: Let your doctor know if you have had any allergic reactions to nasal sprays in the past. Let your health care provider know if you are pregnant or breast feeding. Let your healthcare provider know of all supplements you are currently taking.

Contraindications:

- Hypersensitivity to NAD⁺ or formulation excipients
- Use cautiously in individuals with active gout (may increase uric acid)
- Not recommended during **acute severe illness** without supervision

Cautions: Let your Healthcare provider know of any changes of vision while on this compounded preparation

How to Use: This medication is a nasal spray and is delivered in a premixed liquid form. Gently blow your nose to clear it from mucous before using the compound. Remove the ring and protective cap to reveal the nasal spray tip. Tilt head slightly forward, hold bottle with thumb on bottom and your index and middle fingers on top. Use your fingers to squeeze down on the pump while you breathe in slowly through your nose. If needed, repeat the process for the second nostril.

Warnings and Precautions:

- Electrolyte disturbances possible with prolonged infusions
- Limited safety data in pregnancy and lactation

PRESCRIPTION MONOGRAPH

Adverse Reactions:

Common:

- Nervousness
- Sleep disturbances
- Fatigue

Serious:

- Hypotension (from vasodilation)
 - Bradycardia
 - Allergic reaction (rare)
-

Interactions:

- No known major drug interactions
 - May theoretically interact with chemotherapeutics that rely on redox mechanisms
 - Oral niacin/nicotinamide should be spaced from NAD⁺ to reduce GI effects
-

Use in Specific Populations:

- Pregnancy & Lactation: Not enough evidence; avoid unless prescribed
 - Pediatrics: Safety not established
 - Elderly: Well-tolerated in wellness protocols, but monitor comorbidities
-

Storage:

- Refrigerate at 2°C to 8°C (36°F to 46°F)
 - Can be stored at room temperature (up to 30°C or 86°F) for up to 48hrs
 - Do not freeze
-

Monitoring Parameters:

- Consider pre- and post-treatment electrolyte and liver function labs in high-dose regimens
 - Clinical assessment of fatigue, cognition, or detox symptoms if applicable
-

Citations:

1. Conlon NJ. The Role of NAD⁺ in Regenerative Medicine. *Plast Reconstr Surg.* 2022 Oct 1;150(4 Suppl):41S-48S. doi: 10.1097/PRS.0000000000009673. Epub 2021 Sep 28. PMID: 36170435; PMCID: PMC9512238
-

Compounded medications are not FDA-approved and may differ in risks, benefits, and side effects from FDA-approved products. These statements have not been evaluated by the FDA and are not intended to diagnose, treat or cure any disease or condition and do not indicate any claims of safety or efficacy.
Individual results may vary.