

 CLEAN PEPTIDES

NAD+ Dosage Guide

Nicotinamide Adenine Dinucleotide — IV, subcutaneous and oral precursor (NMN, NR) protocols for longevity, energy and DNA repair.

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What Is NAD+?

NAD+ (nicotinamide adenine dinucleotide) is a coenzyme found in every cell — essential for energy production, DNA repair and gene regulation. It is an electron carrier in mitochondrial respiration, a required cofactor for sirtuins (SIRT1–7, the “longevity enzymes”), and a substrate for PARP DNA-repair enzymes. Technically a dinucleotide (not a peptide), NAD+ is central to the longevity community and is routinely stacked with peptides like MOTS-c, SS-31 and Epitalon. NAD+ levels decline ~50% between ages 40 and 60.

Dosing derives from clinical protocols, published research and community experience.

Key Characteristics

- **Central coenzyme in cellular energy metabolism** — essential for ATP production.
- **Sirtuin cofactor (SIRT1–7)** — regulates aging, inflammation, stress resistance, DNA repair.
- **PARP substrate for DNA repair** — a major NAD+ sink that increases with age.
- **CD38-related decline** — CD38 activity rises with age, consuming NAD+.
- **Multiple strategies** — IV, subcutaneous, oral precursors (NMN, NR, niacin, niacinamide).
- **~50% decline between ages 40–60.**

How Dosage Is Determined

Informed by IV-clinic protocols, oral-precursor PK trials (NMN, NR), NAD+ metabolism research and community experience. NR 1,000 mg/day elevates NAD+ 40–90%; NMN 250 mg/day improves insulin sensitivity in trials. IV protocols (250–1,000 mg over 2–8 h) originated in addiction medicine. **Strength of evidence: strong for oral precursors, moderate for injectable.**

Standard Dosage Ranges

IV Infusion (Clinical)

Level	Dose/Session	Infusion Time	Frequency
Starting	250 mg	2–3 hours	1x/week
Standard	500 mg	3–4 hours	1–2x/week

Level	Dose/Session	Infusion Time	Frequency
High / Therapeutic	750–1,000 mg	4–8 hours	Per protocol

Subcutaneous

Level	Dose/Injection	Frequency	Weekly Total
Starting	50–100 mg	2x/week	100–200 mg
Standard	100–200 mg	2–3x/week	200–600 mg
Higher Range	200 mg	Daily or near-daily	Up to 1,000+ mg

Oral Precursors

Precursor	Starting	Standard	Higher Range
NMN	250 mg/day	500 mg/day	1,000 mg/day
NR (Niagen)	300 mg/day	300–600 mg/day	600–1,000 mg/day
Niacin (NA)	50 mg/day	100–500 mg/day	1,000+ mg/day
Niacinamide (NAM)	250 mg/day	500 mg/day	1,000 mg/day

Administration Routes Compared

Parameter	IV Infusion	Subcutaneous	Oral Precursors
Typical Dose	250–1,000 mg	100–200 mg	250–1,000 mg/day
NAD+ Elevation	Highest acute spike	Significant	Moderate, sustained
Cost	\$250–\$1,000+/session	\$100–\$300/month	\$30–\$100/month
Best For	Acute loading, addiction, neuro	Maintenance	Long-term daily longevity
Evidence	Clinical practice	Clinical practice	Multiple human trials

“Load and maintain”: IV loading (2–4 sessions over 1–2 weeks) then SubQ (2–3x/week) and/or daily oral precursors.

Oral Precursors: NMN vs NR

Feature	NMN	NR (Niagen)
Pathway	One step before NAD+	Two steps before NAD+
Standard Dose	250–1,000 mg/day	300–600 mg/day
Clinical Trials	Multiple (growing)	More published trials
Regulatory (US)	Contested	FDA-recognized as GRAS

Both work and are well-tolerated. Consistent daily use matters more than which precursor.

Reconstitution & Dosing (with the supplied 3 ml)

The Clean Peptides NAD+ vial is 1000 mg. Reconstituted in 3 ml it is highly concentrated (≈ 333 mg/mL); many researchers instead dilute NAD+ into a larger volume for IV use. Figures below are for subcutaneous dosing from the supplied 3 ml.

Every Clean Peptides vial ships with **3 ml of bacteriostatic water** (0.9% benzyl alcohol). All figures below assume you reconstitute with the **full 3 ml**. On a standard U-100 insulin syringe, **100 units = 1 ml**.

Quick formula: concentration = vial strength $\div$ 3 ml, and **units to draw = dose (mg) $\times$ 300 $\div$ vial strength (mg)**.

How to reconstitute

1. **Wash your hands** and lay out the vial, the 3 ml bacteriostatic water, an insulin syringe and alcohol swabs on a clean surface.
2. **Flip off the caps** and swab both rubber stoppers with alcohol; let them air-dry 10–15 seconds.
3. **Draw the full 3 ml** of bacteriostatic water (in three 1 ml passes with an insulin syringe, or in one pass with a 3 ml syringe).
4. **Add the water slowly**, angling the needle so it runs down the inside glass wall — never squirt it directly onto the powder cake.
5. **Dissolve gently** — let the vial sit 1–2 minutes, then swirl or roll it between your palms until the solution is clear. Never shake.
6. **Label and refrigerate** at 2–8 °C. Resulting concentration: 1000 mg $\rightarrow$ 333.33 mg/mL.

Storage: unreconstituted powder refrigerated (2–8 °C); reconstituted solution refrigerated and used within 28–30 days; do not freeze; protect from light and heat.

Draw volumes with 3 ml — NAD+

Vial (Clean Peptides)	Concentration	50 mg	100 mg	200 mg
1000 mg	333.33 mg/mL	15 u	30 u	60 u

Dosage by Goal

- **General longevity & anti-aging:** oral NMN 500 mg/day or NR 300–600 mg/day, morning; + TMG 500–1,000 mg/day. Stack with Epitalon, MOTS-c.
- **Energy & mitochondrial optimization:** oral NMN 500–1,000 mg/day $\pm$ SubQ 100–200 mg 2x/week; + MOTS-c, SS-31.
- **Cognitive & neuroprotection:** IV 500 mg (2–4 loading sessions) + oral NMN 500–1,000 mg/day maintenance.
- **Addiction recovery:** IV 500–1,000 mg/session daily 7–14 days (medical clinic only).
- **DNA repair & genomic integrity:** oral NMN 500–1,000 mg/day $\pm$ SubQ 100 mg 2–3x/week; + Epitalon, SS-31.

Match intensity to goal — most benefit from consistent daily oral NMN or NR.

Cycling & Duration

Protocol	Duration	Cycling
Oral NMN/NR (maintenance)	Ongoing (indefinite)	No cycling required
SubQ NAD+ (maintenance)	Ongoing or periodic	Optional 8 wk on / 4 wk off
IV NAD+ (loading)	1–2 weeks (2–4 sessions)	Transition to SubQ/oral
IV NAD+ (therapeutic)	7–14 consecutive days	Per clinical protocol
Periodic IV boosters	1 session every 4–8 weeks	Alongside daily oral

NAD+ is a metabolic cofactor, not a receptor agonist — no desensitization; continuous daily oral use is standard.

Stacking Protocols

- **NAD+ + MOTS-c** — mitochondrial optimization (ETC fuel + AMPK activation).
- **NAD+ + SS-31** — mitochondrial membrane integrity (cardiolipin stabilization).
- **NAD+ + Epitalon** — longevity & telomere maintenance.
- **NAD+ + Metformin** — separate dosing by several hours (potential interference with exercise benefits).

NAD+ is foundational, not redundant — it fuels the pathways these peptides target.

Safety, Side Effects & Contraindications

Oral precursors have excellent safety profiles; IV/SubQ have more acute effects.

IV (rate-dependent): flushing, chest tightness/pressure, nausea/cramping, anxiety, headache, light-headedness — all resolve when the infusion is slowed. **SubQ:** injection-site stinging/burning, redness, mild flushing. **Oral (NMN/NR):** very mild; rare GI upset; possible sleep disruption if taken late. Niacin specifically causes flushing above 50–100 mg.

Contraindications: active malignancy (discuss with oncologist); pregnancy/breastfeeding (avoid injectable); bleeding disorders/anticoagulants; liver disease (high-dose niacin risk — NMN/NR do not share this).

Common Mistakes

- Running IV infusion too fast (main cause of severe side effects).
- Expecting oral NAD+ (the molecule) to work like NMN/NR (poor bioavailability — use precursors).
- Inconsistent daily precursor dosing.
- Ignoring the cancer concern in high-risk individuals.
- Skipping methyl-donor support (TMG) during high-dose use.
- Choosing the most expensive route without matching goals.
- Improper storage after reconstitution.
- Taking NMN/NR at night (sleep disruption — take in the morning).

Key Takeaways

- Central coenzyme for energy, DNA repair and aging; declines ~50% between ages 40–60.
- Not technically a peptide, but widely used in the longevity/peptide community.
- Routes: IV (highest, most expensive), SubQ (moderate, home use), oral NMN/NR (most practical daily).

- Oral precursors are the mainstay: NMN 500 mg/day or NR 300–600 mg/day + TMG.
- SubQ NAD+ stings but is well-tolerated (100–200 mg, 2–3x/week). Best stacks: MOTS-c, SS-31, Epitalon.

References

1. Camacho-Pereira J, et al. "CD38 dictates age-related NAD decline." *Cell Metab.* 2016;23(6):1127-1139.
2. Yoshino J, et al. "NAD+ intermediates: NMN and NR." *Cell Metab.* 2018;27(3):513-528.
3. Martens CR, et al. "Chronic NR supplementation elevates NAD+ in older adults." *Nat Commun.* 2018;9(1):1286.
4. Yoshino M, et al. "NMN increases muscle insulin sensitivity in prediabetic women." *Science.* 2021;372(6547):1229-1232.
5. Rajman L, et al. "Therapeutic potential of NAD-boosting molecules." *Cell Metab.* 2018;27(3):529-547.