

HOW LONG CAN A PHARMACEUTICAL-GRADE NAD⁺ LAST AFTER RECONSTITUTION?

Extending the use of reconstituted NAD⁺ beyond **30 days** raises serious concerns from a medical and pharmaceutical standpoint. Here's why it's not recommended:

1. Sterility & Contamination Risks

- Once a vial is **opened and reconstituted**, its sterility is compromised.
 - Without bacteriostatic water and proper refrigeration (2–8 °C), **bacterial contamination risk increases daily**.
 - Standard compounding guidelines mandate discard after **24 hours (refrigerated)** or **4 hours (room temperature)** unless validated sterilization and stability data supports extended use.
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2. NAD⁺ Stability Concerns

- NAD⁺ is chemically unstable and **unpredictably susceptible to light, heat, and oxidation**.
 - Even under ideal refrigerated conditions, **degradation can occur within days**, reducing therapeutic efficacy. Self-life guidelines for similar peptides generally recommend usage **within a few days to a week**.
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3. Medical Best Practices

Clinical protocols typically recommend:

- **Single-use**, or
 - **Use within 24–48 hours post-reconstitution**.
Storing diluted NAD⁺ for 30 days does **not align with standard practice**, unless backed by rigorous sterility and stability testing.
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Conclusion

Using reconstituted NAD⁺ beyond **24–48 hours**—let alone 30 days—is **not medically or pharmaceutically sound**. Unless manufacturers provide clear stability and sterility validation, extended storage compromises safety and efficacy.

✓ REFERENCE SUMMARY

1. Sterility & Beyond-Use Date (BUD)

- ****FDA – Guidance on Beyond-Use Dates for Sterile Reconstituted Products****
Explains that compounded sterile preparations must have a defined BUD after manipulation, often limited to hours unless validated:
<https://www.fda.gov/media/88905/download> **SB PEPTIDE+13U.S. Food and Drug Administration+13U.S. Food and Drug Administration+13U.S. Food and Drug Administration+4Wolters Kluwer+4RxCe+4**
 - ****ASHP – The Pharmacist Guide to Assigning a Beyond Use Date****
Details conservative BUD rules for compounding sterile preparations—generally ≤24 hours refrigerated.
<https://www.ashp.org/-/media/assets/pharmacy-practice/resource-centers/compounding/docs/The-Pharmacist-Guide-to-Assigning-a-Beyond-Use-Date-final.pdf> **USP+9ASHP+9RxCe+9**
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2. Peptide Stability in Solution

- ****Intercom (DripDok): Storage Guide for Reconstituted Peptides****
Notes reconstituted peptides remain active for a few weeks under refrigeration (2–8 °C), but degrade faster otherwise.
<https://intercom.help/dripdok/en/articles/9902679-the-ultimate-guide-to-storing-peptides-best-practices-for-maximum-potency-longevity> **JPT Peptide Technologies+2Intercom+2SB PEPTIDE+2creative-peptides.com**
- ****Creative-Peptides: Shelf Life of Reconstituted Peptides****
Confirms stability for about a week at 4 °C and up to 4 weeks with bacteriostatic water under refrigeration.
<https://www.creative-peptides.com/resources/how-long-do-peptides-last.html> **U.S. Food and Drug Administration+12creative-peptides.com+12JPT Peptide Technologies+12**





- ****Peptide Sciences: Peptide Storage Guidelines****
States peptide solutions are generally stable for up to 30 days at 4 °C, depending on sequence and conditions.
[🔗 https://www.peptidesciences.com/peptide-information/peptide-storage](https://www.peptidesciences.com/peptide-information/peptide-storage)
[Intercom+10Peptide Sciences+10MilliporeSigma+10](#)
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3. Medical & Compounding Standards on BUD

- ****Wolters Kluwer: Understanding USP 797 Beyond-Use Dates****
Discusses how beyond-use dating depends on compounding environment, stability, and sterility factors.
[🔗 https://www.wolterskluwer.com/en/expert-insights/usp-forum-update-beyond-use-dates-buds](https://www.wolterskluwer.com/en/expert-insights/usp-forum-update-beyond-use-dates-buds) [PMC+9Wolters Kluwer+9RxCe+9](#)
- ****USP Beyond-Use Date Fact Sheet****
Explains the regulatory framework for assigning BUDs to compounded formulations.
[🔗 https://www.usp.org/sites/default/files/usp/document/our-work/compounding/usp-bud-factsheet.pdf](https://www.usp.org/sites/default/files/usp/document/our-work/compounding/usp-bud-factsheet.pdf) [U.S. Food and Drug Administration+1ASHP+1ASHP+9USP+9RxCe+9](#)

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