

Thymosin Alpha-1

Patient Education Guide — What It Does, Why a Physician Would Prescribe It, and What the Evidence Says

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Important Disclaimer

This information is not medical advice and is provided only to help begin your research. All clinical and dosing decisions must be made with a licensed, experienced physician and a licensed, experienced compounding pharmacist, supported by published clinical studies. This material was compiled using Artificial Intelligence, statements from videos and websites by apparent qualified professionals, and available published research. Anyone starting a medication they have never taken before should take an extremely conservative approach. We are not affiliated with any of the doctors whose videos are referenced below.

Thymosin Alpha-1 Immune Modulator

Also known as: Thymalfasin (international brand: Zadaxin)

Category: Immune Support

How it works. Thymosin Alpha-1 is a 28-amino-acid immunomodulatory peptide that acts through multiple immune signaling pathways including T-cell maturation, dendritic-cell function, natural killer cell activity, cytokine modulation, and Th1/Th2 balance. It is fundamentally different from tissue-repair peptides like BPC-157 and from metabolic peptides like the GLP-1 agonists—it is an immune-active drug .

Why a physician prescribes it. Thymosin Alpha-1 is approved in approximately 37 countries under the brand name Zadaxin (SciClone Pharmaceuticals) for indications including chronic hepatitis B and C, selected cancer immunomodulation, and adjunctive therapy in severe sepsis. It is not FDA-approved as a finished drug in the United States. It is most defensibly prescribed for carefully selected immune-related contexts: recurrent infections that have been properly worked up, immune dysregulation, chronic viral history, post-chemotherapy immune recovery.

Cautions. Be careful in patients with autoimmune disease (stimulating immune function in lupus, rheumatoid arthritis, or inflammatory bowel disease could trigger flares), organ transplant patients on immunosuppression, pregnancy, and severe allergic disease. Side effects are usually mild—injection-site reactions or transient flu-like symptoms as the immune system activates. Fever, severe fatigue, joint pain, or worsening of autoimmune symptoms require prompt evaluation and discontinuation.

Published Evidence: Thymosin Alpha-1 has the strongest non-GLP-1 human evidence base of any peptide in this chapter—but that evidence comes primarily from international trials, not from an FDA-approved U.S. label. A comprehensive review (*PMC* 2020) documents immunomodulatory action through toll-like receptors, anti-tumor properties, and protective effects against oxidative damage. The TESTS trial (multicenter RCT, *BMJ* 2025) evaluated thymosin α 1 for sepsis, building on meta-analysis data suggesting a 41% relative reduction in 28-day mortality. Clinical trials have been conducted for non-small cell lung cancer, hepatitis B/C, HIV, melanoma, and COVID-19 with variable but promising results.

Key Studies:

- Comprehensive review of Thymosin alpha-1 literature. *PMC*. 2020.
- TESTS Trial. "Efficacy and safety of thymosin α 1 for sepsis." *BMJ*. 2025.
- FDA Orphan Drug approval: Zadaxin (thymalfasin) for multiple indications.

Recommended Videos (educational, independent sources)

► **Dr. Jay Campbell — Cody McBroom Podcast** — Peptides 101 with Jay Campbell: Healing, Hormones & Human Optimization Explained

https://www.youtube.com/watch?v=-_bBjTahTOI

► **Dr. Greg Jones — Enovative Wellness Center** — Thymosin Alpha-1: Immune Support & Peptide Therapy Explained

<https://www.youtube.com/watch?v=4PMrhzk6tm4>

► **Dr. Adam Sewell, MD** — Thymosin Alpha-1: Transforming Immunotherapy for Autoimmune & Cancer Care

<https://www.youtube.com/watch?v=HgCNS3pkeyE>

