
What is Thymalin?

Thymalin is a naturally occurring **thymic peptide**, originally isolated from the thymus gland in 1977 by Jean-Francois Bach. It's a **9-amino acid peptide (nonapeptide)** with the sequence:

H-Pyr-L-Ala-L-Lys-L-Ser-L-Gln-Gly-Gly-L-Ser-L-Asn-OH

This sequence plays a crucial role in **immune regulation**, **anti-aging**, and **systemic restoration**. While often confused with **Thymulin** (a shorter peptide), **Thymalin** has a broader range of clinically studied benefits, particularly in **Russian biomedical research**.

What Does Thymalin Do?

Thymalin acts as a **bioregulator**, helping the **thymus gland regenerate** and optimize its primary role—educating and maturing **T-lymphocytes** (a type of white blood cell essential for immune defense).

Key Benefits Include:

Boosts Immune Function

Stimulates the production and maturation of T-cells and **Th1 cytokines**, aiding in the fight against viruses, bacteria, and inflammation.

Anti-Aging & Longevity Support

Shown in long-term Russian clinical trials to **extend lifespan**, reduce mortality, and minimize age-related disease incidence.

Reduces Inflammation

Balances cytokine levels, prevents cytokine storms, and supports recovery from conditions like **COVID-19**, **ARDS**, and **chronic inflammation**.

Enhances Recovery

Improves **wound healing**, tissue regeneration, and may alleviate **chronic pain** through its anti-inflammatory and immune-modulating properties.

Supports Hair Growth

When paired with **zinc**, it can stimulate dormant hair follicles and restore pigmentation, according to pilot studies.

Potential Anti-Tumor Agent

Early animal and human studies suggest it may inhibit tumor growth, though more evidence is needed.

How Does Thymalin Work?

Thymalin reboots your **hematopoietic system**, encouraging **stem cell differentiation** into mature immune cells (CD28+ T-cells). It also regulates the **NF-κB and MAPK pathways**, known to control inflammation at a cellular level.

In severe cases of immune suppression (e.g., late-stage infections or aging), Thymalin helps **restore immune balance** by:

- Decreasing inflammatory cytokines (IL-6, TNF-α, etc.)
- Increasing beneficial immune cell markers
- Reversing thymic atrophy seen in middle age and older

Research Highlights

A long-term Russian study (6–8 years, 266 elderly participants) found:

- **2–2.5X lower mortality** with Thymalin vs. placebo
- Significant reduction in **respiratory infections**
- Reduced risk of **osteoporosis, cardiovascular disease**, and more

In severe COVID-19 cases, 10 mg/day of Thymalin showed:

- 2x increase in lymphocytes
- 7x increase in eosinophils
- 8x drop in C-reactive protein
- 7.2x reduction in D-dimer (clotting marker)

Dosing Guidelines (Informational Use Only)

Standard Immunity Boost Protocol (Adults):

- 5–10 mg per day intramuscularly (IM) or subcutaneously (SC) for **10 days**
- May be repeated every 6–12 months

Advanced Longevity Protocol (Thymalin + Epitalon):

- 5 mg each per day, IM or SC, for **20 days straight**

Prevention Use:

- 5–10 mg/day for short 5–10 day periods

⚠ Always consult a licensed medical professional before starting any injectable regimen.

Warnings & Considerations

- Safe in most healthy adults, with minimal side effects reported (e.g., mild restlessness or irritability).
 - Not advised for **pregnant/breastfeeding women, immunosuppressed individuals**, or when taking other thymic peptides or hormones (unless monitored by a physician).
 - **Zinc is essential** for Thymalin's effectiveness—consider supplementing.
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Storage & Handling

- Store **reconstituted solution** in the refrigerator (2–8°C), use within 20 days.
 - Unmixed, keep in freezer (-20°C) for up to 12 months.
 - Do **not expose** to sunlight or freeze reconstituted vials.
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Summary: Why Choose Thymalin?

Thymalin is more than a peptide — it's a system-wide rejuvenator. With over 40 years of research backing its ability to **restore immune balance, combat inflammation**, and **slow aging**, this peptide deserves serious attention from health-conscious biohackers and clinicians alike.

It's especially useful for:

- Individuals over 35 wanting to **protect their thymus**
 - Those with **immune suppression or chronic inflammation**
 - Longevity seekers combining **Thymalin + Epitalon**
 - Biohackers interested in **T-cell optimization** and **cytokine control**
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