thetrutides

EPITHALON

The telomerase peptide — longevity research since the 1980s

UPDATED 4 AUGUST 2026

Epithalon (also spelled Epitalon) comes out of a long-running Soviet and Russian gerontology programme and is the compound most directly associated with telomere research. It was recommended by the FDA advisory committee in July 2026 — for insomnia, which is not what most buyers associate it with.

In Plain English

Every time a cell divides, the protective caps on the ends of its chromosomes — telomeres — get slightly shorter, and that shortening is one of the recognised markers of biological ageing. Telomerase is the enzyme that can rebuild those caps. Epithalon is reported to switch that enzyme back on. That is a genuinely interesting proposition, and it is also the part of the story with the least independent verification.

What people use it for. Longevity and anti-ageing is the reason most people buy it, though sleep and circadian rhythm is the better-supported use and the one FDA actually reviewed it for.

What to know before you buy. Almost all of the research comes from one group in Russia working over several decades. That is not automatically a problem, but findings that have not been independently reproduced deserve more caution than findings that have. There is also an unresolved question worth taking seriously: the enzyme this compound is proposed to switch on is the same one many cancers use to keep dividing. Nobody has shown that is a real-world problem, and nobody has shown it is not.

What It's Used For

GOAL	WHAT THAT RESTS ON
Sleep and circadian rhythm	Derived from a pineal preparation; the pineal gland governs melatonin. This is the indication FDA actually reviewed
Longevity research interest	Reported telomerase induction and telomere extension in cultured human cells
Long research history	Decades of Russian gerontology work including long-term elderly cohort follow-up

The left column lists goals people commonly pursue with this compound; the right column states what that rests on. These are described uses and research findings, not proven outcomes or treatment claims. Individual results vary and no outcome is promised.

Pricing & Sizes

PRICING

10mg vial	$40

Bulk pricing: 2-3 vials −5% | 4-6 vials −10% | 7-9 vials −15% | 10+ vials −20%

Ships sealed and lyophilized — stable for years at room temperature, reconstitute before use, or ask and it will be reconstituted free at the volume shown below. **Free shipping on every order, no minimum.** Third-party COA available for every batch — HPLC purity and mass spec verification.

Reconstitution — bacteriostatic water: 10mg vial at 2mL = 5mg/mL, so 10 units on a 100-unit syringe draws 0.5mg. Concentrations are arithmetic from vial content and diluent volume, not a dosing recommendation.

At a Glance

CLASS	Synthetic tetrapeptide (Ala-Glu-Asp-Gly), derived from the pineal peptide preparation epithalamin
ORIGIN	Prof. Vladimir Khavinson, St Petersburg Institute of Bioregulation and Gerontology
PROPOSED MECHANISM	Reported induction of telomerase activity, with downstream effects on telomere length and pineal regulation of melatonin
REVIEWED FOR	**Insomnia** — the indication FDA actually evaluated at PCAC, not longevity
HUMAN DATA	Long-running Russian cohort work reported by the originating group; no independent Western randomised controlled trial
REGULATORY (US)	Not FDA-approved. PCAC recommended for 503A listing 24 July 2026; no FDA action taken
FORMAT	10mg vial

4	7-4-1	Telomerase	0
AMINO ACIDS	PCAC VOTE	PROPOSED MECHANISM	WESTERN RCTS

REGULATORY STATUS — READ THIS FIRST

On 24 July 2026 the FDA Pharmacy Compounding Advisory Committee voted **7-4-1 to recommend** Epitalon (free base and acetate) for the Section 503A bulk drug substances list. That vote is **advisory only.** As of 4 August 2026 the FDA has taken no action on it, has not opened rulemaking, and has not moved the substance to the interim Category 1 list. FDA's own scientific reviewers had recommended *against* all seven peptides; the committee voted against staff on six consecutive votes, so the usual assumption that a PCAC recommendation predicts the agency's decision is weaker here than normal. Several outlets have reported this as the FDA "clearing", "approving" or "adding" these peptides to the bulks list. That is inaccurate. Nothing has been added and nothing is legally cleared. Note also that FDA evaluated Epitalon for **insomnia**, not for longevity or telomere extension.

What the Research Shows

The Epithalon literature is unusual in that most of it originates from a single research group over several decades. Khavinson and colleagues have reported telomerase induction in human somatic cell culture, extension of telomeres in cultured fibroblasts, and long-term cohort observations in elderly patients including reported effects on mortality and physiological markers.

The concentration of evidence in one group is the central limitation. Independent replication of the telomerase findings outside that programme is limited, and the long-term human cohort work does not meet the design standards of a randomised controlled trial. This is not a reason to dismiss it — it is a reason to weight it as promising and unconfirmed.

The carcinogenicity question

This was raised directly at the PCAC hearing. Telomerase reactivation is a recognised feature of many cancers, so a compound proposed to induce telomerase carries a theoretical mechanism-level concern, amplified by chronic dosing. No evidence was presented showing this occurs in practice, and no evidence was presented ruling it out. It remains an open question, and it is the most substantive objection to the compound.

The pineal and sleep angle

Epithalon derives from a pineal gland preparation, and the pineal gland governs melatonin and circadian rhythm. This is why FDA evaluated it for insomnia rather than longevity — the sleep and circadian rationale is the better-supported of its two stories, even though the longevity framing drives most of the market interest.

THE BOTTOM LINE

A compound with a genuinely interesting mechanism, decades of work behind it, and an evidence base concentrated in one research group without independent replication. The unresolved telomerase-carcinogenicity question is the substantive objection. Its PCAC recommendation was for insomnia, and FDA has taken no action on it.

Also in the Range

Compare with **DSIP** for sleep. Note the difference in standing: Epitalon was recommended by the July 2026 PCAC panel, DSIP was rejected.

 Sources: FDA PCAC meeting materials and briefing documents, 23-24 July 2026; Hyman, Phelps & McNamara FDA Law Blog, 24 and 28 July 2026; Mintz, 29 July 2026; Polsinelli, 22 April 2026. Khavinson and colleagues, published Epitalon literature.