

PATIENT INFORMATION

EPITHALON

Evidence Guide • Investigational longevity peptide

ADULT CLINICAL INFORMATION Epithalon is an investigational peptide with limited high-quality human clinical evidence. This sheet is educational and does not provide instructions for self-administration or an established treatment cycle.

What is Epithalon?

Epithalon (also called Epitalon) is a synthetic tetrapeptide with the amino-acid sequence Ala-Glu-Asp-Gly (AEDG). It was developed from research on short peptides associated with pineal and neuroendocrine biology and has been investigated mainly in cellular, animal and limited human research related to ageing biology.

How is it Proposed to Work?

The best-known laboratory finding is that Epithalon can influence telomerase-related pathways in cultured human cells. Some studies have reported increased telomerase activity and telomere elongation in cell models. These findings are biologically interesting but do not establish that Epithalon slows human ageing, extends lifespan or prevents age-related disease.

Other proposed mechanisms include effects on gene expression, oxidative-stress pathways and neuroendocrine signalling. These mechanisms remain under investigation and should not be presented as proven clinical outcomes.

Potential Areas of Interest

- Cellular ageing and telomere biology - supported mainly by laboratory research.
- Neuroendocrine and circadian biology - proposed from pineal-peptide research, but not established as a routine treatment for sleep disorders.
- Oxidative-stress and cellular-protection pathways - investigated primarily in experimental models.
- Healthy-ageing research - scientifically interesting, but clinical benefit in otherwise healthy adults remains unproven.

EVIDENCE MATTERS Claims such as 'anti-ageing', lifespan extension, cancer prevention, immune rejuvenation or guaranteed telomere restoration go beyond the current quality of human evidence.

Alchemy Compounding Pharmacy Presentation

The Alchemy Compounding Pharmacy Epithalon product is supplied as a reloadable multi-cartridge pen presentation. The exact dose, administration technique and treatment duration must be specified by the prescribing clinician and the dispensing pharmacy's approved product instructions.

Product information	Clinical position
Investigational peptide	Not an established anti-ageing medicine
Multi-cartridge pen	Use only according to individual prescription and pharmacy instructions

Clinical references

Khavinson VK et al. Epithalon peptide induces telomerase activity and telomere elongation in human somatic cells (2003). Al-Dulaimi S et al. Epitalon and telomere biology in human cell lines (2025). Reviews of Epitalon biology emphasise that robust clinical evidence remains limited.

What is the Best Time of Day?

There is no robust human clinical evidence showing that Epithalon works better when administered in the morning, evening or at bedtime. Although some Epithalon discussions focus on pineal biology and circadian rhythm, that does not establish a clinically superior dosing time.

PRACTICAL POSITION Timing should therefore be determined by the prescribing clinician and the specific product instructions rather than by claims that bedtime dosing is proven to be more effective.

How Long Should a Course Last?

There is no well-validated, regulator-approved human treatment schedule establishing that Epithalon should be used for 20 days, followed by a 10-day or 20-day break, or repeated for three months. Published research is too heterogeneous and limited to support one of these schedules as the evidence-based standard.

For that reason, a fixed repeating 'cycle' should not be presented to patients as clinically established. Any course should have a defined indication, prescriber-selected duration and planned reassessment rather than being continued automatically.

DURATION OF TREATMENT There is currently no evidence-based Epithalon cycling interval that can be recommended as a universal standard. Duration and any repeat course require individual clinician review.

Possible Side Effects & Safety Limitations

Epithalon does not have the large, well-controlled human safety database expected of an established prescription medicine. This means the true frequency and range of adverse effects are not well characterised.

- Hypersensitivity or intolerance is possible with any peptide preparation.
- Local reactions may occur with injectable formulations.
- Long-term metabolic, endocrine and immune effects have not been adequately defined in large clinical trials.
- Potential medicine interactions are not well characterised.
- The long-term clinical significance of experimentally altering telomerase-related pathways is unknown.

SEEK MEDICAL ADVICE New or significant symptoms during treatment require medical assessment. Treatment should not be continued simply because a planned course has not yet been completed.

Who Requires Particular Caution?

Because human safety data are limited, Epithalon should not be considered routine therapy in people for whom safety has not been established. Particular caution is appropriate in pregnancy or breastfeeding, active or recent malignancy, significant uncontrolled medical illness, and in younger patients.

Theoretical discussion around telomerase does not prove that Epithalon causes or prevents cancer. It does mean that strong cancer-related claims in either direction are not justified by current evidence.

Clinical Review & Monitoring

- Confirm the clinical rationale and treatment goals before initiating therapy.
- Review medical history, current medicines and relevant contraindications or risk factors.
- Define objective goals and a planned review point rather than using indefinite treatment.
- Reassess tolerability and any new symptoms before considering a repeat course.

Important

MEDICALLY SUPERVISED CARE Epithalon remains investigational for healthy-ageing purposes. It should not replace established preventive healthcare, sleep assessment, nutrition, physical activity, management of cardiovascular risk factors or evidence-based treatment of medical disease.