celia
Research Protocols

Longevity

Epithalon

About

Epithalon is a synthetic peptide being studied for its potential to support healthy aging by regulating circadian rhythms, promoting telomere maintenance, and enhancing melatonin production. It may also offer antioxidant and immune-supportive effects.

***These products are for research use only and are not intended for human consumption, medical use, therapeutic use, or diagnostic purposes.** They are not to be used in foods, drugs, cosmetics, dietary supplements, or any products intended for humans or animals. Peptides are not sterile, have not been tested for safety or efficacy in humans, and must not be injected, ingested, inhaled, applied to the skin, or administered in any form. No product sold is intended to treat, cure, mitigate, or prevent any disease.

What's Included

- One vial, concentration: 50mg/4mL
- One vial will last 10 days

Reconstitution kit

- (20) 29-30G subq needles
- (1) 5mL syringe
- (1) 25G needle with syringe
- (1) 10 mL bacteriostatic water

Clinical Research Potential Benefits:

- May support anti-aging, telomere repair, and longevity
- May enhance sleep quality and circadian rhythm regulation
- May improve immune function and reduce inflammation
- May boost energy, cognitive clarity, and vitality
- May support skin health and cellular regeneration

Clinical Research Suggested Use:

- Draw 40 units (5mg) into the syringe
- Administer daily in the morning
- Duration: 10 days; two times per year.
- Reconstitute: add 4mL bacteriostatic water to the to the lyophilized powder vial
- Injection type: subcutaneous injection

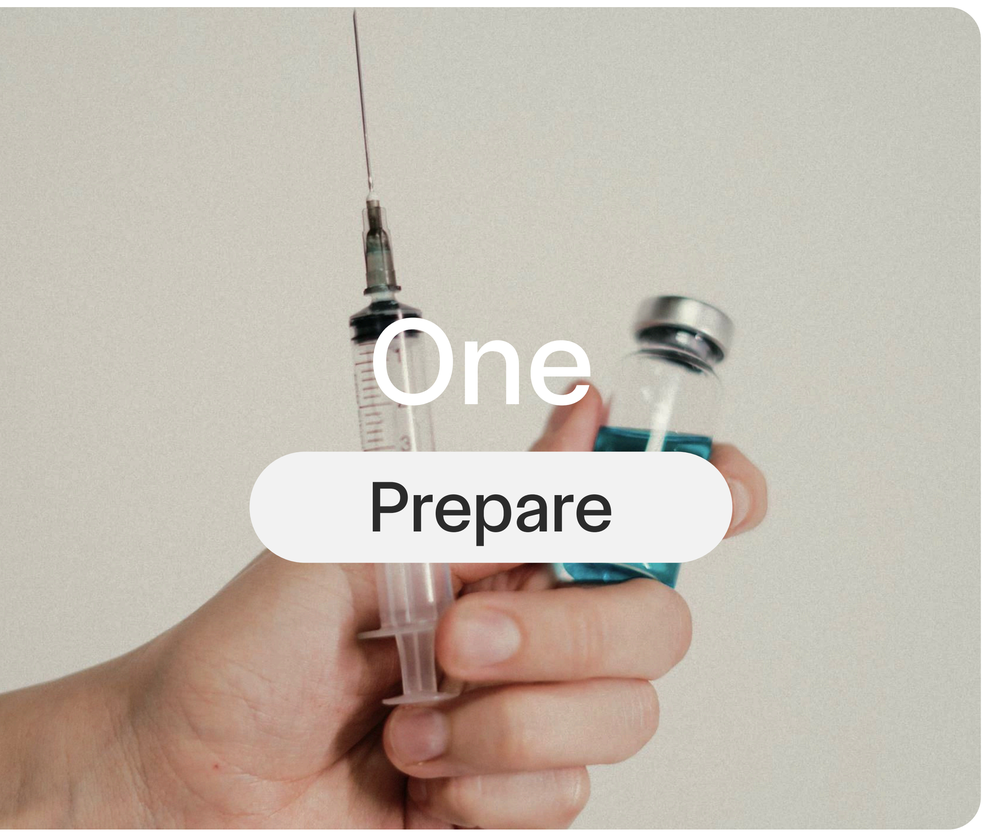
Reconstitution & Administration*

*Instructions start on page 2

celia
Research Protocols

Longevity

Epithalon Reconstitution



STEP 1: Remove plastic covers, clean vial and bacteriostatic water top with alcohol pad for 15 seconds

STEP 2: Using the large syringe from your administration kit, pull out 4mL of Bacteriostatic water

- It may take a few repetitions to load your syringe with the 4mL with no air pockets

STEP 3: Once you've loaded your syringe, slowly inject the 4mL of Bacteriostatic water into your Epithalon vial:

- On its side to not damage the bonds of the product
- Do not shake, gently swirl if needed
- Allow the solution to sit for at least 5 minutes

***Supplies:** 5 mL syringe (large), 25G needle, Bacteriostatic water, Epithalon vial, Alcohol pad

STEP 1: With the smaller needle draw up 40 units of the Epithalon into the small syringe from your kit

***Supplies:** 29G-30G subcutaneous syringe with needle (small), Alcohol pad

STEP 1: Clean the injection area with an alcohol pad

STEP 2: Inject subcutaneously (see pg 3)

- Repeat daily for 10 days
- Duration: 10 days; two times per year
- Each vial lasts 10 days

Injection Steps

Subcutaneous Injection steps:

1 Choose & Clean the Injection Site

- Use the abdomen (3 inches from the belly button), thigh, or upper arm. Rotate sites to prevent irritation. Clean the area with an alcohol swab and let it dry.

2 Inject

- Pinch 1 to 2 inches of skin, insert the needle at a 90° angle, and slowly push the plunger down.

3 Remove the Needle & Dispose

- Pull the needle out at the same angle, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

4 Monitor for Reactions

- Mild redness or soreness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

Intramuscular Injection steps:

1 Choose & Clean the Injection Site

- Use the thigh (vastus lateralis), upper arm (deltoid), or glute (ventrogluteal or dorsogluteal muscle).
  - Rotate sites to prevent soreness. Clean the area with an alcohol swab and let it dry.

2 Inject

- Stretch the skin taut, hold the syringe like a dart at a 90° angle, and insert the needle quickly and smoothly. Slowly push the plunger down to inject.

3 Remove the Needle & Dispose

- Pull the needle straight out, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

4 Monitor for Reactions

- Mild soreness or redness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

Epithalon Mechanism of Action

- **Telomere Lengthening and Telomerase Activation:**
  - Telomeres are the protective caps at the ends of chromosomes, which shorten each time a cell divides. As telomeres shorten over time, cells age and lose their ability to regenerate.
  - Epithalon activates telomerase, the enzyme that helps maintain and lengthen telomeres. By increasing telomerase activity, Epithalon helps prevent the premature shortening of telomeres, which is a key factor in the aging of cells. This mechanism supports cellular regeneration and longevity.

- **Regulation of Melatonin Production:**
  - Epithalon acts on the pineal gland, which produces melatonin, a hormone crucial for regulating the body's circadian rhythms (sleep-wake cycles).
  - By stimulating the pineal gland, Epithalon enhances melatonin production, leading to improved sleep quality and better regulation of the body's biological clock. Melatonin also has antioxidant properties and plays a role in cellular repair.

- **Antioxidant and Anti-Inflammatory Effects:**
  - Epithalon has antioxidant properties, helping to neutralize free radicals, which are highly reactive molecules that cause oxidative stress. This oxidative damage accelerates aging and contributes to the development of age-related diseases.
  - It also exhibits anti-inflammatory effects, reducing chronic low-grade inflammation, which is associated with various aging-related conditions like cardiovascular disease, neurodegenerative disorders, and metabolic dysfunction.

- **Cellular Regeneration and DNA Repair:**
  - By increasing telomerase activity and supporting the maintenance of telomeres, Epithalon helps promote cellular regeneration and the repair of damaged DNA. This enhances the body’s ability to repair itself, preventing age-related cell degeneration and improving tissue health.

- **Immune System Support:**
  - Epithalon may enhance the function of the immune system, supporting the body's ability to fight infections and illnesses. It can help counteract the immune system decline that typically occurs with aging.