Thymulin, sometimes referred to as thymalin, is naturally found in the human body. Thymulin is a thymic hormone that is secreted by thymic epithelial cells. Its production is regulated by zinc and influenced by melatonin and growth hormone. Thymulin is well known for its modulation of immune system function, and is also known to interact with the pituitary gland and pineal gland. It acts as a signalling molecule that links the immune, endocrine and nervous systems. The production of thymulin naturally decreases with age and it is often seen at lowered levels in cases of autoimmune diseases, chronic infection illnesses, aging, diabetes, heart disease, Lyme disease and cancer.

The importance of this peptide has allowed for it to be synthesized as a variety of peptide analogues, extracted from mammalian thymus, bound to nanoparticles to be administered as a component of gene therapy with the goal of increasing thymulin in the body. While these variants of thymulin are all functionally useful, natural and bioidentical thymulin displays unique immunomodulatory effects on the thymus and T-cells, unlike synthetic variants.

Thymulin is typically administered with the goal of improving immune responses. It is also able to act as an analgesic to mediate pain such as neuropathic and pain related to systemic inflammation. However, its uses increase substantially when used in conjunction with other peptides, such as thymosin alpha-1, thymosin beta-4, BPC-157, epitalon, and eptihalamin. It is also used in conjunction with cancer treatments, such as chemotherapy to reduce the side effects, such as immune suppression and for improving outcomes. Thymulin is approved for use as an immunomodulator in Russia and has been used in several clinical trials. It can be administered for long term use; people have safely used thymulin for many years without issue.

**Clinical Effects**

- Can be beneficial for die off reactions or herxheimer reactions commonly seen with Lyme patients.
- Can modulate the immune system and reduce inflammation.
- Enhances the activity of various immune system cells, like T cells and NK cells.
- Can act as an analgesic to mediate neuropathic and inflammation-based pain and reduce pain hypersensitivity.
- Can influence serotonin and melatonin levels.
- Can be used as co-therapy to counteract sepsis.
- Acts on the pituitary gland, modulating hormone secretion.
- Interacts with growth hormone.
- Improves lung inflammation and improves lung functionality in chronic allergic asthmatics.
- Inhibits hemocoagulation.
- Positively influences lifespan, even in individuals with autoimmune conditions.
- Can be used in conjunction with pineal gland peptides to maximize immune system function, reduce age-related pathologies, and promote longevity thanks to geroprotective effects.
- Can counteract the negative cardiac and immunological responses that develop in women with endometritis following Caesarean sections.
- Displays anti-atherosclerotic effects.
- Displays anticarcinogenic activity and can be used in conjunction with complex therapies, including radiotherapy and chemotherapy.
- Can counteract immune deficiency associated with thymectomies.
Thymulin is available in a variety of formats, including as an injectable 20
substance or nasal spray. Dosages vary based on the type of condition being treated, the age of
the patient, and based on whether thymulin is being applied preventatively or therapeutically. A
single dose of thymulin may be required, or long-term dosing may be required depending on the
condition. Regular breaks in administration are suggested for dosing carried out after multiple
years. Thymulin administration can be effective for 6-8 months following short dosing periods,
thus this depends on the condition. Consult your physician to create a dosing plan appropriate
to your needs.

Typical dosing: Typical dosing is 200-800 mcg/day, which is equal to #10 to #40 on a insulin
syringe after adding 5cc of bacteriostatic water to the 10mg Thymulin vial.

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