Thymosin Alpha-1 (TA1) is a bioidentical fragment of the natural peptide prothymosin alpha, which is produced in the thymus gland and lymphoid tissues. TA1 is an immune modulator that can restore normal immune function and balance.1-5 It is approved for clinical use in more than 35 countries and has been shown to be effective for the treatment of numerous conditions, including immune deficiency/dysfunction, viral infection, bacterial infection, autoimmune disease and cancer. Low TA1 levels can be seen with conditions of aging, mold exposure, stress, fatigue, toxin exposure, hypothyroidism, low growth hormone level, chronic infection (e.g., TA1 is low or absent in patients with HIV/AIDS), zinc deficiency, obesity, cancer, cardiovascular disease, low adrenal function and autoimmune disease.6,10,11 Treatment with TA1 has been shown to be effective against numerous chronic infections (especially those with associated immune dysfunction), including Lyme disease, hepatitis B and C, tuberculosis, HIV/AIDS, CMV, EBV and chronic mold exposure.1,2,4,5

According to the U.S. Centers for Disease Control (CDC), approximately 80% of aged individuals are affected with at least one chronic disease as a result of age-related decreases in thymic-related immune function.7

**Clinical Effects of Thymic Peptides**

(Thymosin Alpha-1, Thymosin Beta-4, Thymulin, Thymogen)

- Increased Natural KillerNK function
- Reversal of the immunosuppression seen with chronic infection, such as Lyme disease
- Improved host defense against infection and cancer
- Increased antioxidant and glutathione production
- Effective for treating multiple cancers

**Side effects:** TA1 has an excellent safety profile over a large therapeutic window (> 100 fold). There can be mild side effects, such as temporary nausea, flushing or a local reaction at the injection site. There is no reported instance of a deliberate or accidental overdose in a human.

**Dosing protocol:** Add 5 ml of bacteriostatic water to the vial and inject 0.1 ml (#10)-0.25 ml (#25) subcutaneously each day (optionally, 5 days on and 2 days off) or as directed by your physician. One vial lasts 30 to 50 days.