ThymoPress[™]

Immune Support with Thymus Glandular and 3% Astragalosides IV Standardized Astragalus

ThymoPress[™] is an eclectic formula that blends thymus organ glandular with standardized astragalus root extract and supporting nutrients to optimize immune health.

Thymus Glandular

The thymus glandular used in this product is freezedried organ powder from New Zealand grass-fed lamb. It is guaranteed free of pesticides and growth hormones, and is ISO 17025–accredited laboratorytested and verified for accuracy, potency, and the absence of heavy metals, pesticides, solvent residues, and microbial contamination.

Thymus glandular contains a variety of substances including nutrients, proteins, enzymes, minerals, and other cofactors. Human clinical trials have investigated the use of thymus gland extract in the prevention of chemotherapy adverse effects in women with breast cancer,^{1,2} in children with recurrent respiratory tract infections,^{3,4} to improve immune function in the elderly,⁵ for the treatment of recurrent herpes simplex labialis infection in immunodeficient patient,⁶ asthma,⁷ allergic rhinitis,⁸ food allergies,^{9,10} and to improve chronic active hepatitis B infection.¹¹





In a randomized trial involving 51 women with breast cancer, 25 patients received a bovine thymic extract with polychemotherapy, while 26 patients received only polychemotherapy.¹² Patients were monitored over a period of at least 3 months. **Infections (mainly cystitis, conjunctivitis and stomatomucositis)** were reported in 37% of the treatment patients versus 77% in the controls (p < 0.005). In addition, there was a **significantly lower incidence of myelotoxicity** in the thymus extract–treated patients (p < 0.0005).

A double-blind clinical trial evaluating the effectiveness of thymus extract on the recurrence of respiratory infection in children found that the treatment group experienced a **significant decrease** of the monthly frequency of recurrent respiratory infections as compared with the previous year (p < 0.05) and in comparison with the placebo group (p < 0.002).¹³ A randomized, placebo-controlled, double-blinded trial investigated the effect of thymic extract in children aged 3.5 to 9 years who experienced recurrent respiratory infections during the previous winter.¹⁴ The group who received the thymic extract for a period of 4 months had a statistically significant reduction of the total number of catharral bouts and improved general state according to the parents.

In a study of elderly subjects, treatment with thymus extract for 6 weeks had a restorative effect on polymorphonuclear leukocyte phagocytosis.¹⁵ Phagocytosis and the phagocytic index were significantly improved, with increases of 132.6% and 112.5%, respectively. These findings support the use of thymus glandular to enhance immunodefenses of immunocompromised elderly individuals.

The first company in the industry to have invested in an ISO 17025–accredited laboratory to test for identity, potency, oxidation, disintegration, purity, and more.



In a placebo-controlled trial, patients with recurrent herpes simplex labialis were treated with bovine thymus extract or placebo for a period of 6 months.¹⁶ After 12 months of follow-up, a total of 17 recurrences with a mean severity index of 266.2 ±192 was reported in the treatment group versus a total of 62 recurrences and mean severity index of 458.8 ±299.6 in the placebo group. In addition to increased total WBC, lymphocyte count, and T-cell number, the treatment group had significantly higher lymphoproliferative responses to herpes simplex virus antigen and natural killer-cell activity compared to the placebo group.

Astragalus (Astragalus membranaceus) Root Extract, 3% Astragalosides IV

Astragaloside IV (AS-IV) research to date has been mostly in vitro studies and in vivo studies in animal models. AS-IV's promising role in cancer therapy may be related to its role in the **induction of apoptosis**, inhibition of proliferation, inhibition of metastasis, inhibition of angiogenesis, reversal of MDR, increase of chemosensitivity or radiosensitivity of tumours, promotion of autophagy, improvement of immunity, and prevention of cancer.¹⁷

A review of Chinese medical herbs for chemotherapy side effects in colorectal-cancer patients included four relevant trials that used a decoction containing *huangqi* (*Astragalus* spp.) compounds as the intervention.¹⁸ The authors found a **significant reduction in the proportion of patients experiencing nausea and vomiting** when chemotherapy was accompanied with the *huangqi* decoction. In addition, use of the decoction was associated with a **decrease in the rate of leucopenia and an increase in the proportions of T-lymphocyte subsets D3, CD4, and CD8.**

Zinc

Zinc plays an important role in the maintenance of a healthy immune system.¹⁹ More specifically, zinc is an important cofactor for thymus hormone function, and zinc deficiency is associated with higher levels of thymocyte apoptosis and resulting thymic involution.^{20, 21} Old mice given oral doses of zinc had zinc levels similar to those of young mice. Additionally, these mice showed a full recovery of thymic functions, with a regrowth of the thymus and a partial restoration of the peripheral immune efficiency.²²

Each vegetable capsule contains:

Glandular thymus (from lamb [Ovis aries]) 100 mg
Astragalus (Astragalus membranaceus)
root extract, 3% astragalosides IV 100 mg
Zinc (from zinc citrate) 15 mg
Calcium ascorbate 100 mg
Providing:
Calcium 10 mg
Vitamin C 75 mg

*Superior quality, freeze-dried organ from New Zealand grass-fed lamb. Guaranteed free of pesticides, growth hormones, antibiotics, and transmissible spongiform encephalopathy (TSE).

Nonmedicinal ingredients: Microcrystalline cellulose, vegetable magnesium stearate and silicon dioxide in a vegetable capsule composed of carbohydrate gum and purified water.

Directions of use: Adults: Take 1–2 capsules daily or as directed by your health-care practitioner. Please consult your health-care practitioner for use greater than 1 month.

Cautions and warnings: Consult a health-care practitioner prior to use if you are pregnant or breast-feeding, or if you have an autoimmune disorder.

Product #2688 · 60 vegetable capsules · NPN 80112895

References

- 1 laffaioli, R.V., G. Frasci, G. Tortora, F. Ciardiello, F. Nuzzo, S. Scala, R. Pacelli, and A.R. Bianco. "Effect of thymic extract 'thymostimulin' on the incidence of infections and myelotoxicity during adjuvant chemotherapy for breast cancer." *Thymus*, Vol. 12, No. 2 (1988): 69–75.
- 2 Meneses, G., M.A. Delgado, M.A. Perez-Machado, A. Prieto, R. Alonso, F. Carrion, E. Lanzos, and M. Alvarez-Mon. "Thymostimulin increases natural cytotoxic activity in patients with breast cancer." *International Journal of Immunopharmacology*, Vol. 19, No. 4 (1997): 187–193.
- 3 Fiocchi, A., E. Borella, E. Riva, D. Arensi, P. Travaglini, P. Cazzola, and M. Giovannini. "A double-blind clinical trial for the evaluation of the therapeutical effectiveness of a calf thymus derivative (Thymomodulin) in children with recurrent respiratory infections." *Thymus*, Vol. 8, No. 6 (1986): 331–339.
- 4 Longo, F., L. Lepore, E. Agosti, and F. Panizon. "Valutazione dell'efficacia della timomodulina in bambini con infezioni respiratorie ricorrenti" [Evaluation of the effectiveness of thymomodulin in children with recurrent respiratory infections] (article in Italian). La Pediatria Medica e Chirurgica, Vol. 10, No. 6 (1988): 603–607.
- 5 Braga, P.C., M. Dal Sasso, S. Maci, G. Piatti, R. Palmieri, L. Bruno, and C. Albanese. "Restoration of polymorphonuclear leukocyte function in elderly subjects by thymomodulin." *Journal of Chemotherapy*, Vol. 6, No. 5 (1994): 354–359.

- 6 Aiuti, F., M.C. Sirianni, M. Fiorilli, R. Paganelli, A. Stella, and G. Turbessi. "A placebocontrolled trial of thymic hormone treatment of recurrent herpes simplex labialis infection in immunodeficient host: Results after a 1-year follow-up." *Clinical Immunology* and Immunopathology, Vol. 30, No. 1 (1984): 11–18.
- 7 Genova, R., and A. Guerra. "Un estratto di timo (Timomodulina) nella profilassi dell'asma infantile" [A thymus extract (thymomodulin) in the prevention of childhood asthma] (article in Italian). La Pediatria Medica e Chirurgica, Vol. 5, No. 5 (1983): 395–402.
- 8 Marzari, R., P. Mazzanti, P. Cazzola, and E. Pirodda. "Rinopatia allergica perenne. Profilassi degli episodi acuti mediante l'impiego di timomodulina" (Perennial allergic rhinitis. Prophylaxis of acute episodes using thymomodulin] (article in Italian). *Minerva Medica*, Vol. 78, No. 22 (1987): 1675–1681.
- 9 Cavagni, G., E. Piscopo, E. Rigoli, P. Iuliano, P. Bertolini, and P. Cazzola. "Food allergy in children: an attempt to improve the effects of the elimination diet with an immunomodulating agent (thymomodulin). A double-blind clinical trial." *Immunopharmacology and Immunotoxicology*, Vol. 11, No. 1 (1989): 131–142.
- 10 Genova, R., and A. Guerra. "Thymomodulin in management of food allergy in children." International Journal of Tissue Reactions, Vol. 8, No. 3 (1986): 239–242.
- 11 Dworniak, D., H. Tchórzewski, L. Pokoca, B. Tkacz, S. Drobnik, Z. Baj, and M. Luciak. "Treatment with thymic extract TFX for chronic active hepatitis B." Archivum Immunologiae et Therapiae Experimentalis, Vol. 39, No. 5–6 (1991): 537–547.

ThymoPress[™] NDMAPS[™] Data Collection

Key Benefits from the Case Series

- Increase in neutrophils and white blood cells
- HSV2 treatment and prevention
- Recurring URTI

Graph 1: Number of Cases with Benefits from ThymoPress™

Total number of cases: 19



Graph 2: Number of Cases per Cancer Type, and Number of Cases without Illness during Travel Using ThymoPress™

Total number of cases: 31



Graph 5: Number of Cases per Duration of Use Using ThymoPress™

Total number of cases: 36; 2 cases did not have follow-up

1-3 months	4-6 months	7-9 months	10-13 months	18-24 months
18	7	1	2	6

References (continued from p. 2)

- 12 Iaffaioli et al. "Effect of thymic extract 'thymostimulin'."
- 13 Fiocchi et al. "A double-blind clinical trial."
- 14 Longo et al. "Valutazione dell'efficacia della timomodulina."
- 15 Braga et al. "Restoration of polymorphonuclear leukocyte function."
- 16 Aiuti et al. "A placebo-controlled trial."
- 17 Chen, T., P. Yang, and Y. Jia. "Molecular mechanisms of astragaloside-IV in cancer therapy (Review)." International Journal of Molecular Medicine, Vol. 47, No. 3 (2021): 13.
- 18 Taixiang, W., A.J. Munro, and L. Guanjian. "Chinese medical herbs for chemotherapy side effects in colorectal cancer patients." *The Cochrane Database of Systematic Reviews*, Vol. 2005, No. 1 (2005): CD004540.
- 19 Wessels, I., M. Maywald, and L. Rink. "Zinc as a gatekeeper of immune function." Nutrients, Vol. 9, No. 12 (2017): 1286.
- 20 Haase, H., and L. Rink. "The immune system and the impact of zinc during aging." Immunity & Ageing, Vol. 6 (2009): 9.
- 21 Dardenne, M., N. Boukaiba, M.C. Gagnerault, F. Homo-Delarche, P. Chappuis, D. Lemonnier, and W. Savino. "Restoration of the thymus in aging mice by in vivo zinc supplementation." *Clinical Immunology and Immunopathology*, Vol. 66, No. 2 (1993): 127–135.
- 22 Mocchegiani, E., L. Santarelli, M. Muzzioli, and N. Fabris. "Reversibility of the thymic involution and of age-related peripheral immune dysfunctions by zinc supplementation in old mice." *International Journal of Immunopharmacology*, Vol. 17, No. 9 (1995): 703–718.







Naturopathic Doctor Medical Advancement Panel Solutions, or NDMAPS[™] stands as the first program of its kind, bridging the gap between the natural-health product industry and clinical practice, all for the benefit of practitioners and their patients. *This groundbreaking and innovative project strives to initiate the process: fostering conversations that cultivate trust, ultimately paving the way for the establishment of clinical research into natural product formulations and the synergistic effects they offer.* This assessment follows a model distinct from conventional medicine, aligning with our naturopathic principles, which emphasize a holistic approach. For us, case studies represent the pinnacle of insight. Our learning stems from attentive listening and astute observation—and that encapsulates the essence of NDMAPS[™].

Our Methodology



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