

# Thymex®

7925

Please Copy for Your Patients

## Thymex is Made From Bovine Thymus Cytosol™ Extract, Calcium Lactate, and Magnesium Citrate

Thymex helps kick-start the thymus gland, the center of the immune system, when antibody production is needed. The thymus is the key immune gland, especially in newborn infants and young children. It preprocesses T-lymphocytes after their origination and migration from bone marrow. In the thymus, the cells divide rapidly and develop diversity for reacting against different specific antigens.

Thymex contains a Cytosol™ extract of the thymus gland, the core of the immune system. Such extracts contain the gland's steroid and hormone precursors, enzymes, coenzymes and synergistic cofactors produced by the cell. The main purpose of these aqueous tissue extracts is to support the patients' hormone-dependent tissue functions until the tissue is able to do so itself.

Calcium and magnesium are minerals of critical importance to human nutrition. Bone mineralization is one of their primary nutritional functions. Calcium comprises about 98 percent of the mineral component of bone and tooth structure. Calcium is also essential for various other body functions, including blood coagulation, muscle contraction, nerve conduction, maintenance and function of cell membranes and membrane permeability, and the proper functioning of many enzymes. The magnesium in this product aids in the uptake of calcium lactate by the body. However, on its own, magnesium is a critical dietary substance. It is an essential element for over 300 enzymes in the body and among its many roles, it is a cofactor for ATP metabolism in the body.†

## How Thymex Keeps You Healthy

### Calcium lactate is a highly-bioavailable form of the important mineral

Calcium lactate is a very useful form of calcium. It changes to calcium bicarbonate (the type used by the body) in one chemical step, whereas calcium carbonate for example, goes through approximately twelve chemical reactions to become calcium bicarbonate. Calcium lactate is a very soluble calcium salt and highly bioavailable, thus making it an excellent source for calcium therapies.†

### Calcium and magnesium play a role in phagocytosis in which various types of white blood cells engulf and devour microscopic invaders

Studies show that calcium is necessary for the proper functioning of various white blood cells. Natural killer cells, lymphocytes, leukocytes, monocytes, and neutrophils are all at least partially dependent on extra-cellular calcium and magnesium.†

### Calcium supplementation helps maintain a healthy environment in the stomach

Limited studies suggest that calcium supplementation precipitates bile acids in the gastrointestinal track, rendering it less hospitable to single cell organisms.†



**Introduced in:**

1957

**Content:**

90 Tablets

### Supplement Facts:

Serving Size: 1 tablet  
Servings per Container: 90

		%DV
Calories	2	
Cholesterol	5 mg	2%
Vitamin C	5 mg	10%

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† These statements have not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

## What Makes Thymex Unique

### Unique Product Attributes

#### Ingredients are derived from whole-food sources

- Each tablet supplies 130 mg bovine thymus Cytosol™ extract
- Extracts from bovine tissues provide nutrients and support to the corresponding tissues in humans
- Vitamins, minerals, and nutrients from animal tissues work synergistically for maximum effect†

#### The calcium lactate in Thymex is a pure-vegetable source of calcium

- Not derived from a dairy source

### Unique Processing

#### Exclusive low-temperature, high-vacuum drying technique

- Preserves the enzymatic vitality and nutritional potential of ingredients

#### Not disassociated into isolated components

- The nutrients in Thymex are processed to remain intact, complete nutritional compounds

#### Degreed microbiologists and chemists in our on-site laboratories constantly conduct bacterial and analytical tests on raw materials, product batches, and finished products

- Ensures consistent quality and safety

#### Vitamin and mineral analyses validate product content and specifications

- Assures high-quality essential nutrients are delivered

#### Whole Food Philosophy

Dr. Lee challenged common scientific beliefs by choosing a holistic approach of providing nutrients through whole foods. His goal was to provide nutrients as they are found in nature—in a whole food state where he believed their natural potency and efficacy would be realized. Dr. Lee believed that when nutrients remain intact and are not split from their natural associated synergists—known and unknown—bioactivity is markedly enhanced over synthetic nutrients. Following this philosophy, even a small amount of a whole food concentrate will offer enhanced nutritional support, compared to a synthetic or fractionated vitamin. Therefore, one should examine the source of nutrients rather than looking at the quantities of individual nutrients on product labels.

Each tablet supplies 130 mg bovine thymus Cytosol™ extract.

**Proprietary Blend:** Bovine thymus Cytosol™ extract and magnesium citrate.

**Other Ingredients:** Calcium lactate, cellulose, calcium stearate, and ascorbic acid.

**Suggested Use:** One tablet per meal, or as directed.

**Sold to health care professionals.**

Studies on nutrients generally use large doses and these studies, some of which are cited below, are the basis for much of the information we provide you in this publication about whole food ingredients. See the supplement facts for Thymex®.

Aoyagi, et al. 1992. Role of Magnesium in Activation of NADPH Oxidase of Human Neutrophils Evidence That Magnesium Acts Through G-Protein. *Biochem Biophys Res Comm* 186(1): 391-397.

Argov S., et al. 1979. Cation Requirement of Natural, In-vitro Generated and Antibody Dependent Killing Exerted by Human Lymphocytes. *Immunobiology* 156(1-2):25-34.

BarDayan Y., Shoenfeld Y. 1997. Magnesium Fortification of Water – A Possible Step Forward in Preventive Medicine. *Annales de Médecine Interne* 148(6): 440-444.

Bovee Oudenhoven I.E., et al. 1997. Dietary Calcium Inhibits the Intestinal Colonization and Translocation of Salmonella in Rats. *Gastroenterology* 113(2): 550-557.

Burkey, et al. 1991. Intracellular Calcium Changes Associated with In-vitro Lymphokine-activated Killer and Natural Killer Cell Cytotoxicity. *Arch Otolaryngology--Head and Neck Surgery* 117(6): 1281-1287.

Frakes M.A., Richardson L.E. 1997. Magnesium Sulfate Therapy in Certain Emergency Conditions. *Am J Emergency Med* 15(2): 182-187.

Green, et al. 1983. The O2-generating Oxidoreductase of Human Neutrophils: Evidence of an Obligatory Requirement for Calcium and Magnesium for Expression of Catalytic Activity. *Biochem Biophys Res Comm* 110(3): 973-987.

Grewal A.S., Babiuk L.A. 1980. Complement-dependent, Polymorphonuclear Neutrophil-mediated Cytotoxicity of Herpesvirus-infected Cells: Possible Mechanism(s) of Cytotoxicity. *Immunology* 40(2): 151-161.

Harlan J., et al. 1977. Magnesium-dependent Adenosine Triphosphatase as a Marker Enzyme for the Plasma Membrane of Human Polymorphonuclear Leukocytes. *Infect Immun* 13(2): 436-443.

Murray M., Pizzorno J. 1998. *Encyclopedia of Natural Medicine*. Rocklin, CA: Prima Publishing.

Rijkers G.T., et al. 1993. Changes in Free cytoplasmic Magnesium Following Activation of Human Lymphocytes. *Biochem J* 289(Pt 2): 373-377.

Suzuki H., et al. 1985. Enhancement by Calcium or Magnesium of Catalytic Activity of the Superoxide-producing NADPH Oxidase in Membrane Fractions of Human Neutrophils and Monocytes. *J Biol Chem* 260(6): 3635-3639.

Toka E.N., et al. 1996. The cytosolic Free Ca<sup>2+</sup> in Ectromelia (Mousepox) Virus Stimulated Cytotoxic T-lymphocytes. *Viral Immunol* 9(3): 159-167.

Torres M., Hunter K.A. 1990. Magnesium is Necessary for Adherence of Human Polymorphonuclear Neutrophils to Laminin. *Pediatr Res* 27(4 Part 2): 151A.

Tsugawa, et al. 1993. Bioavailability of Calcium From Oyster Shell Electrolyte in Vitamin D-replete or Vitamin D-deficient Rats. *J Bone Mineral Metab* 11(2) Suppl 3: S23-S32.

Tsugawa, et al. 1995. Bioavailability of Calcium From Calcium Carbonate, DL-calcium lactate, L-calcium lactate, and Powdered Oyster Shell Calcium in Vitamin D-deficient or Replete Rats. *Biol Pharm Bull* 18(5): 677-682.