Ligaplex[®] II

Supports Tissue and Joints and Stimulates Healing of Connective Tissue

Organ tissue proteins have been widely used to support good health since the time of the ancient Greeks. Liver powder may stimulate, support, and maintain protein metabolism. Carbamide stimulates osmotic transfer of body fluids, helping to reduce swelling, and also aids protein metabolism. Calcium is needed for repair of connective tissue. Manganese is an important trace mineral for skeletal and connective tissue development. Vitamin E is a powerful antioxidant that protects the joints from damage by free radicals and increases joint mobility. One of the richest sources of the complete vitamin E complex is found in wheat germ oil. Coenzyme Q_{10} increases tissue oxygenation to aid in repair of connective tissues. This important nutrient can be found naturally in bovine heart tissue. The combination of these ingredients contributes to the overall functioning and well-being of the skeletal system through a number of physiological processes.[†]

How Ligaplex II Keeps You Healthy

Helps maintain a healthy skeletal system

Bovine bone and veal bone PMG[™] extract is used to stimulate healing of connective tissue. Calcium is the most important element required for the body to maintain strong bones and teeth and to trigger a number of other important physiological processes. Calcium lactate is a highly bioavailable and useful form of this important element, since it converts to calcium bicarbonate in one chemical step. It is the calcium of choice for many calcium therapies. Manganese is a trace mineral essential for the proper formation and maintenance of bone, cartilage, and connective tissues. Its properties for connective tissue formation aid in maintenance of jointed surfaces. Manganese, an antioxidant, cooperates with many different enzymes, helping to carry out different metabolic processes, including energy production and protein metabolism.[†]

Enhances metabolic efficiency

Liver provides nutrients, enzymes, hormone precursors, and a number of other factors that help support specific cellular metabolism and physiological functions. The proteins found in the liver are used not only for a rich source of nutrients, but they also provide a nutritional stimulus to corresponding human organs. Carbamide stimulates proper tissue fluid metabolism. The maintenance of proper fluid levels in the interstitial spaces of tissues surrounding a joint helps keep the joints healthy.[†]

Maintains cellular health

Protomorphogen[™] is the brand name of Standard Process' extracts derived from nucleoprotein-mineral molecules. These molecules are the singular units of the cellular blueprint assembly. The primary organizers of protein specificity, these cellular determinants are concentrated components of cell chromosomes. Veal bone Protomorphogen[™] extract serves a myriad of functions beyond providing shape and support for the body. The antigenic properties of these nucleoproteinmineral molecules promote healthy cellular division, growth, repair, and function.[†]

Please copy for your patients.

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



Introduced in 1961

Content: 40 capsules 150 capsules

Suggested Use: Two capsules per meal, or as directed.

Supplement Facts: Serving Size: 2 capsules

Servings per Container: 20 or 75 Amount

| | per Serving | %DV |
|-------------------------|-------------|------|
| Calories | 4 | |
| Total Carbohydrate | 1 g | <1%* |
| Vitamin A | 585 IU | 10% |
| Vitamin C | 1.3 mg | 2% |
| Vitamin D | 25 IU | 6% |
| Vitamin E | 1 IU | 4% |
| Vitamin B ₁₂ | 2 mcg | 35% |
| Calcium | 22.4 mg | 2% |

Manganese 35 mg 1,750% *Percent Daily Values (DV) are based on a 2,000-calorie diet.

Proprietary Blend: 660 mg

Nutritional yeast, carbamide, bovine bone, veal bone PMG[™] extract, bovine liver, defatted wheat (germ), bovine heart PMG[™] extract, magnesium citrate, oat flour, inositol, dried pea (vine) juice, Tillandsia usneoide, carrot (root), sweet potato[†], ribonucleic acid, beet (root), bovine spleen, ovine spleen, bovine adrenal Cytosol[™] extract, bovine kidney, mushroom, bovine liver fat extract, flaxseed oil extract, para-aminobenzoate, rice (bran), and soybean lecithin.

Other Ingredients: Manganese glycerophosphate, gelatin, calcium lactate, water, calcium stearate, ascorbic acid, colors, mixed tocopherols (soy), arabic gum, starch, sucrose (beets), vitamin A palmitate, cellulose, dicalcium phosphate, cyanocobalamin, and cholecalciferol.

Two capsules supply approximately: 220 mg manganese glycerophosphate, 115 mg carbamide, 65 mg veal bone PMG[™] extract, and 40 mg bovine liver.

Sold through health care professionals.



Ligaplex[®] II

What Makes Ligaplex II Unique

Product Attributes

Multiple nutrients from a variety of plant and animal sources

- > Provides support for the proper formation and maintenance of skeletal tissues
- > Bovine bone and veal bone PMG[™] extract are used to stimulate healing of connective tissue
- > Bovine and ovine tissues provide cellular support and rehabilitation to the corresponding tissues in humans
- Vitamins, minerals, and nutrients from plants and animal tissues work synergistically for maximum effect[†]

Contains Protomorphogen[™] extracts

- Standard Process uses a unique manufacturing method of deriving tissue cell determinants from animal glands and organs
- > Important antigenic properties of nucleoprotein-mineral determinants are the foundation of the product[†]

The calcium lactate in Ligaplex II is a pure-vegetable source of calcium

Not derived from a dairy source

Certified Organic Farming

A healthy ecosystem is created by using organic farming techniques, such as rotating crops, fertilizing the soil with nutrient-rich cover crops and byproducts from our processing, practicing strict weed-control standards, and continually monitoring the health of our plants

- > Assures the soil is laden with minerals and nutrients
- > Ensures plants are nutritionally complete and free from synthetic pesticides

Manufacturing and Quality-Control Processes

Upon harvesting, nutrient-rich plants are immediately washed and promptly processed

> Preserves nutritional integrity

Low-temperature, high-vacuum drying technique

> Preserves the enzymatic vitality and nutritional potential of ingredients

Not disassociated into isolated components

- > The nutrients in Ligaplex II are processed to remain intact, complete nutritional compounds
- > Degreed microbiologists and chemists in our on-site laboratories continually 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

Our founder, Dr. Royal 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 isolated nutrients. Following this philosophy, even a small amount of a whole food concentrate will offer enhanced nutritional support, compared to an isolated or fractionated vitamin. Therefore, one should examine the source of nutrients rather than looking at the quantities of individual nutrients on product labels.

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 Ligaplex® II.

- Brink D., et al. 1996. Multi-Elemental Analysis of Bovine Liver Biopsy and Whole Liver. University of Nebraska Beef Cattle Report
- Whole Ltxel. University of recursive cause request report. Cataldo C, et al 1995. Nutrition and Diet Therapy. Ht ed. Minneapolis, MN: West Publishing Company. Dowling EL, jet 41 1993. Assessment of a Human Recombinant Manganese Superoxide Dismutase in Models of Inflammation. *Free Radic Res*
- Commun 18(5): 291-298. Gerber J.M. 1993. Handbook of Preventive and Therapeutic Nutrition. Gaithersburg, MD: Aspen Publishers Inc.
- Guyton A.C., Hall J.E. 1996. Textbook of Medical Physiology. 9th ed. Philadelphia, PA: W.B. Saunders Company.
 Haas E. HealthWorld Online; Staying Healthy with Nutrition.
 Herrero-Yraola A., et al. 1998. Enzymic, cysteine-specific ADP-ribosylation in
- Therite'r Tavla A., et al. 1990. Elystemic, specific specific ADP INDExplanding in bovine liver mitochondria. Journal of Biochemistry 332(Pt 1): 189-193. Jorcke D., et al. 1997. Identification of bovine liver mitochondrial NAD + glycothydrolase as ADP-ribosyl cyclase. Journal of Biochemistry 326(pt or of the data of the specific and the specific as a specific 2): 401-405.
- Lund K., et al. Purification and properties of phosphoserine aminotransferase from bovine liver. Arch Biochem Biophys 254: 319-328.

