

Zinc Liver Chelate™

Plus a Variety of Phytonutrients Combine Forces to Help Provide Immune Support

Zinc is an essential mineral that, among many other things, promotes a healthy immune system. While our bodies do not require large amounts of zinc to maintain good health, there are a number of conditions that can naturally diminish our zinc supply. Certain foods eaten at the same time with zinc-containing foods can interfere with zinc absorption, thereby reducing zinc intake. Low zinc intake can dull the senses of taste and smell and depress the immune system.

A chelate is a chemical compound that contains a central metal ion combined with an organic molecule that has many bonds organized in ringed formations. This particular chemical structure induces a chemical reaction that firmly binds and isolates the metal ion. To ensure zinc stability and absorption in Zinc Liver Chelate, the zinc is bound to liver-tissue proteins, the chelating agent of this particular product.†

How Zinc Liver Chelate Keeps You Healthy

Strengthens the immune system

Zinc supports healthy immune function at the cellular level. The beta carotene found in carrots is converted to vitamin A in the liver. Vitamin A, which also enhances immune function, is also found in animal liver. Beet root contains folic acid, which strengthens immune function by assisting in white blood cell formation and function.†

Maintains cellular health

Zinc deficiency can interrupt the cellular schedule. A lack of zinc can prevent cells from getting the protein groups they need during each normal cell cycle. Some lines of cells living in a zinc-deficient environment may divide faster than normal. Cells lacking adequate zinc nutrition fail to go into the resting phase during cellular differentiation processes. Adequate amounts of zinc in the circulating blood cells work to stabilize cell membranes and increase intracellular efficiency. The vitamin A converted from carrot is a strong antioxidant that helps strengthen cell walls. Oat flour provides multiple nutraceutical and phytochemical constituents to support cellular health. Beets contain vitamins A, B2, and C plus the mineral iron, all essential for maintaining healthy cells.†



Introduced in 1987



Content:

90 tablets

Suggested Use: One tablet per day, or as directed.

Supplement Facts:

Serving Size: 1 tablet
Servings per Container: 90

	Amount per Serving	%DV
Calories	2	
Zinc	10 mg	70%

Proprietary Blend: 228 mg

Bovine liver, beet (root), carrot (root), and sweet potato.

Other Ingredients: Zinc liver chelate, honey, arabic gum, and calcium stearate.

Caution: For short-term restoration of zinc levels. Doses exceeding 100 mgs daily can depress immune function.

Sold through health care professionals.

Please copy for your patients.

GF This product contains less than 10 parts per million of gluten per serving size or less than 20 parts per million per the suggested use listed on each product label.

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



Zinc Liver Chelate™

What Makes Zinc Liver Chelate Unique

Product Attributes

Multiple nutrients from a variety of plant and animal sources

- › Using liver tissue as the chelating agent maintains zinc integrity naturally and ensures zinc stability and absorption
- › Bovine tissues provide nutrients and support to the corresponding tissues in humans
- › Vitamins, minerals, and nutrients from plants and animal tissues work synergistically for maximum effect†

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 Zinc Liver Chelate 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 Zinc Liver Chelate™.

Anderson L.E. 1998. *Mosby's Medical, Nursing, & Allied Health Dictionary*. 5th ed. St. Louis, MO: Mosby; 311, 950, 1746.

Appar J., Everett G.A. 1991. Low zinc intake affects maintenance of pregnancy in guinea pigs. *Journal of Nutrition* 121(2): 192-200.

Balch J.F., Balch P.A. 1997. *Prescription for Nutritional Healing*, 2nd ed. Garden City Park, NY: Avery Publishing Group; 13, 15, 18-19, 29, 540-541.

Kare M.R., Brand J.G., eds. 1986. *Interaction of the Chemical Senses With Nutrition*. Orlando, FL: Harcourt Brace Jovanovich; 111-113.

Kontula P., et al. 1998. The colonization of a simulator of the human intestinal microbial ecosystem by a probiotic strain fed on a fermented oat bran product: effects on the gastrointestinal microbiota. *Applications of Microbiology in Biotechnology* 50(2): 246-252.

Oyama T., et al. 1994. Efficiency of serum copper/zinc ratio for differential diagnosis of patients with and without lung cancer. *Journal of Biological Trace Element Research* 42(2): 115-127.

Pitchford P. 1993. *Healing with Whole Foods, Oriental Traditions and Modern Nutrition*. Revised ed. Berkeley, CA: North Atlantic Books; 34, 52, 103, 106, 122, 127, 130, 186, 210, 288, 297, 381, 429, 497-498.

Prasad A.S. 1996. Zinc: The Biology and Therapeutics of an Ion. *Annals of Internal Medicine* 125: 142-144.

Reyes J.G. 1996. Zinc transport in mammalian cells. *270(2 Pt 1): C401-C410*.

Rosowska M.J. 1995. Effect of dietary caffeine and zinc on the activity of antioxidant enzymes, zinc, and copper concentration of the heart and liver in fast-growing rats. *Journal of Biological Trace Element Research* 50(3): 229-236.

Russell P., Twer D.F. 1989. *The Nutrition and Health Encyclopedia*, 2nd ed. New York, NY: Van Nostrand Reinhold; 584-585.

Stals M.E., Young V.R. 1988. *Modern Nutrition in Health and Disease*, 7th ed. Philadelphia, PA: Lea & Febiger; 238-248.

Southon S., et al. 1986. Intestinal microflora, morphology and enzyme activity in zinc-deficient and Zn-supplemented rats. *British Journal of Nutrition* 55(3): 603.

Turnbull A.J., Thompson R.P.H. 1989. Zinc—a precious metal. *Journal: B-N-F-Nutr-Bull-Br-Nutr-Foundation* 14(1):23-35

Wilson E.D., et al. 1965. *Principles of Nutrition*, 2nd ed. New York, NY: John Wiley & Sons, Inc.; 192-193.

Yun C.H., et al. 1998. Immunomodulatory effects of oat beta-glucan administered intragastrically or parenterally on mice infected with *Eimeria vermiformis*. *Microbiology Immunology* 42(6): 457-465.

