

Drenamin®

Provides Nutrients to Combat Stress and Support Adrenal Function

The adrenal glands are involved in a number of physiological functions in the body including energy metabolism, blood sugar metabolism, regulation of blood flow and blood pressure, immune response, and regulation of sodium potassium and fluid concentrations. The adrenal glands are the stress-handling glands as they produce hormones to help the body respond to stressful events.

How Drenamin Keeps You Healthy

Supports the body during times of stress

When the body is under stress, energy metabolism increases, creating a greater need for nutrients. Drenamin contains whole food ingredients—wheat germ, nutritional yeast, oat flour, buckwheat, alfalfa, mushroom, and carrots—that provide a host of vitamins, minerals, amino acids, and other phytochemicals to supply the body with the nutrients it needs when stressed. Vitamins C and E in particular are found in the adrenal glands. Vitamin C is a cofactor involved in the synthesis of catecholamines, hormones that are secreted by the adrenal glands. Both vitamins C and E support the production of adrenal hormones for healthy adrenal function.†

Provides a whole food source of nutrients for optimal adrenal health B vitamins

Drenamin contains whole food sources of wheat germ, buckwheat, and oats which contain many minerals, B vitamins, and essential and nonessential amino acids to support healthy adrenal function. The B vitamins are especially important in combating the effects of stress on the body. Vitamin B₅ (pantothenic acid) has been shown to play a role in supporting adrenal health. Pantothenic acid is a precursor of both acetyl coenzyme A (which is involved in producing cellular energy) and the neurotransmitter acetylcholine. Deficiency of vitamin B₅ has also been linked to adrenal fatigue.

Amino acids

Many amino acids are involved in synthesizing hormones and other important chemicals in the body. Wheat germ, buckwheat, and oats—found in Drenamin—all contain amino acids. The amino acid tyrosine is especially important to the adrenal glands. The conversion of tyrosine to the catecholamines epinephrine, norepinephrine, and dopamine takes place in the adrenal medulla. Both epinephrine and norepinephrine are hormones secreted by the adrenal gland in response to stress. Dopamine is an important neurotransmitter that supports movement and balance and has also been associated with mood. The amino acids lysine and arginine have been shown to normalize stress responses, and tryptophan is a precursor of serotonin, a neurotransmitter that regulates mood, appetite, and sleep.

Minerals

The whole food ingredients in Drenamin also contain minerals like selenium and magnesium. Selenium deficiency can impair adrenal response. Magnesium is involved in regulating aldosterone and secretion, which influences fluid levels and is involved in easing the actions of angiotensin II, a hormone that causes vasoconstriction and aldosterone secretion.†

Please copy for your patients.



Introduced in 1935

Content:

90 tablets
360 tablets

Suggested Use: Three tablets per meal, or as directed.

Supplement Facts:

Serving Size: 3 tablets

Servings per Container: 30 or 120

	Amount per Serving	%DV
Calories	5	
Vitamin C	9 mg	15%
Riboflavin	1 mg	60%
Niacin	12 mg	60%
Vitamin B ₆	0.3 mg	15%

Proprietary Blend: 730 mg

Calcium lactate, defatted wheat (germ), bovine liver, bovine adrenal, porcine stomach, nutritional yeast, bovine adrenal PMG™ extract, choline bitartrate, alfalfa extract, dried buckwheat (leaf) juice, buckwheat (seed), magnesium citrate, oat flour, mushroom, bovine bone, para-aminobenzoate, allantoin, porcine brain, veal bone, carrot (root), soybean lecithin, rice (bran), and mixed tocopherols (soy).

Other Ingredients: Honey, cellulose, niacinamide, ascorbic acid, calcium stearate, riboflavin, and pyridoxine hydrochloride.

*Three tablets supply approximately:
50 mg bovine adrenal and 40 mg bovine adrenal PMG™ extract.*

Sold through health care professionals.



800-558-8740 | standardprocess.com

Drenamin[®]

How Drenamin Keeps You Healthy (continued)

Supports adrenal tissues with corresponding bovine adrenal-tissue proteins

Drenamin was formulated to help maintain the healthy functioning of the adrenal glands by supplying bovine adrenal-tissue proteins and bovine adrenal PMG™ extract. These organ-tissue proteins provide nutritional “stimulative” support to the corresponding organs in humans while supplying important vitamins and mineral complexes.†

What Makes Drenamin Unique

Product Attributes

Multiple nutrients from a variety of plant and animal sources

- › Provides adrenal support from bovine glands
- › Bovine and porcine 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†

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 Drenamin 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 Drenamin[®].

Atarashi, K., Matsuoka, H., Takagi M., and Sugimoto T., Magnesium Ion: A Possible Physiological Regulator of Aldosterone Production, *Life Sci*, 1989, 44(20): p. 1483-9.

Atarashi, K., Takagi, M., Matsuoka, H., and Sugimoto, T., Effects of Magnesium on Changes in Blood Pressure and Plasma Aldosterone Induced by Angiotensin II, *Am J Hypertens*, 1990, 3(6): p. 488-90.

Bahr, V., Mobius, K., Redmann, A., and Oelkers, W., Ascorbate and Alpha-Tocopherol Depletion Inhibit Aldosterone Stimulation by Sodium Deficiency in the Guinea Pig, *Endocr Res*, 1996, 22(4): p. 595-600.

Chanoine, J. P., Wong, A.C., and Lavoie J.C., Selenium Deficiency Impairs Corticosterone and Leptin Responses to Adrenocorticotropin in the Rat, *Biofactors*, 2004, 20(2): p. 109-18.

Kelly, G.S. Nutritional and Botanical Interventions to Assist with the Adaptation to Stress, *Alternative Medicine Review*, 1999, 4(4): p. 249-65.

Kimura, K., Ozeki, M., Juneja, L.R., and Ohira, H., L-Theanine Reduces Psychological and Physiological Stress Responses, *Biol Psychol*, 2007, 74(1): p. 39-45.

Patak, P., Willenberg, H. S., and Bornstein, S. R., Vitamin C is an Important Cofactor for Both Adrenal Cortex and Adrenal Medulla, *Endocr Res*, 2004, 30(4): p. 871-5.

Peters, E. M., Anderson, R., Nieman, D.C., Fickl, H., and Jogessar, V., Vitamin C Supplementation Attenuates the Increases in Circulating Cortisol, Adrenaline and Anti-Inflammatory Polypeptides Following Ultramarathon Running, *Int J Sports Med*, 2001, 22(7): p. 537-43.

Redmann, A., Mobius, K., Hiller, H.H., Oelkers, W., and Bahr, V., Ascorbate Depletion Prevents Aldosterone Stimulation by Sodium Deficiency in the Guinea Pig, *Eur J Endocrinol*, 1995, 133(4): p. 499-506.

Smriga, M., Ando, T., Akutsu, M., Furukawa, Y., Miwa, K., and Morinaga Y., Oral Treatment with L-Lysine and L-Arginine Reduces Anxiety and Basal Cortisol Levels in Healthy Humans, *Biomed Res*, 2007, 28(2): p. 85-90.

Tsiaklitzis, K., Kourounakis, A.P., Tani, E., Rekkas, E.A., and Kourounakis, P.N., Stress and Active Oxygen Species—Effect of Alpha-Tocopherol on Stress Response, *Arch Pharm (Weinheim)*, 2005, 338(7): p. 315-21.

