

Cellular Vitality

Designed to Synergistically Support Cellular Invigoration— Help Fuel Cells That Support You Today and in the Future

The human body is amazing. More than 100 trillion cells zip around doing their jobs so we can go about the business of daily life. These cells combine to form tissue. Tissue makes up organs. Organs combine to form systems like the cardiovascular system. We don't compartmentalize our body in these terms—we just expect it to run. But as the wear and tear of age and life build up, some systems in the body can slow down.

Most chronic challenges have roots in our lifestyle decisions, so it makes sense to start practicing health maintenance early. Whether you're in your mid-20s or 40s, staying active, maintaining an appropriate weight, managing stress, and eating whole foods can go a long way toward preserving overall health long into the future.

And for added support, Cellular Vitality contains a synergistic blend of ingredients to target the basis of wellness, cellular health.†

What does Cellular Vitality contain?

- › American ginseng (*Panax quinquefolius*)
- › B vitamin complex
 - Vitamin B₁
 - Vitamin B₂
 - Niacin
 - Vitamin B₆
 - Folate
 - Vitamin B₁₂
 - Biotin
 - Pantothenic acid
- › Berry seeds
 - Ruby grape
 - Blueberry
 - Cranberry
 - Red raspberry
 - Black raspberry
 - Pomegranate
- › Bromelain
- › Coenzyme Q₁₀
- › Mushroom powder (*Cordyceps sinensis*)
- › Ribonucleic acid (RNA)

How Cellular Vitality Keeps You Healthy

The stress associated with everyday life, not to mention aging, has a complex and challenging effect on the body. This intricate supplement helps support the body as a whole, with a focus on a comprehensive range of energy-processing pathways.

Fatigue, the body's response to stress, and specific challenges within body mechanisms (for example, cellular growth/proliferation, digestion, or the cardiovascular systems) can be signs that the body needs more help meeting everyday needs. Cellular Vitality's ingredients are designed to support healthy cellular activity, as well as functioning of the body as a whole.

RNA

Ribonucleic acid contains the molecules used to make triphosphates—the energy currency of the cell. These can be broken down and used by rapidly dividing cells (like those that line the gut or blood vessels) in order to fuel protein creation.†

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. **V** Vegetarian (Lacto-ovo)
†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 2010



Content:

90 capsules

Suggested Use: Three capsules per day, or as directed.

Supplement Facts:

Serving Size: 3 capsules

Servings per Container: 30

| | Amount per Serving | %DV |
|--------------------------|-----------------------|-----|
| Calories | 6 | |
| Vitamin B ₁ | 0.225 mg | 15% |
| Vitamin B ₂ | 0.25 mg | 15% |
| Niacin | 3.0 mg | 15% |
| Vitamin B ₆ | 0.3 mg | 15% |
| Folate | 0.03 mg | 8% |
| Vitamin B ₁₂ | 0.45 mcg | 8% |
| Biotin | 0.01 mg | 4% |
| Pantothenic Acid | 1.0 mg | 10% |
| Coenzyme Q ₁₀ | 70 mg | |

Proprietary Blend: 1,150 mg

Multifruit seed powder (ruby-grape seed, blueberry seed, cranberry seed, red-raspberry seed, black-raspberry seed, and pomegranate seed), ribonucleic acid, mushroom powder (*Cordyceps sinensis*), bromelain, and American ginseng (root).

Other Ingredients: Quinoa sprouts, cellulose, maltodextrin, and calcium stearate.

Sold through health care professionals.



800-558-8740 | standardprocess.com

Cellular Vitality

B vitamins

This vitamin complex has a spectrum of action spanning most of the systems in the body. These vitamins help the body deal with stress through fueling the process that creates energy for cells (oxidation-reduction reactions). These vitamins also participate in cell functions (like making DNA/RNA) and protect cells by taking part in antioxidant processes. This activity helps the body stay balanced. Vitamin B₁₂, Vitamin B₆, and folate all help either recycle or use homocysteine, thereby bringing the level of this compound down.[†]

Berry seeds

Foods with antioxidant effects are thought to help protect cells from being damaged by the normal wear and tear of the body. As we go about daily life, some of the chemicals we come in contact with, or even the byproducts of normal body functions, can lead to the formation of free radicals. These molecules try to steal from stable molecules, a process that can eventually lead to cell damage. The antioxidant properties of berries have been researched in almost every system of the body.[†]

Bromelain

An enzyme complex extracted from pineapple stems and juice, bromelain has a long history of use in Central and South American traditional medicine. When taken with meals Bromelain is believed to help break down protein into its component amino acids. But when taken between meals, bromelain modulates the body's natural inflammatory response by helping the body to manage platelet clumping and vascular permeability.[†]

Coenzyme Q₁₀

This enzyme is naturally found in organ meats. It plays a vital role in the processes by which mitochondria generate adenosine triphosphate (ATP)—the fuel used by cells. Research shows that coenzyme Q₁₀ helps protect the cell's ability to regulate sodium/potassium levels, as well as acting to stabilize calcium movement in muscle cells. Coenzyme Q₁₀ also helps protect cells from free-radical molecules.[†]

Cordyceps

This mushroom powder seems to help the body use oxygen, increase energy production within cells, and impact blood sugar metabolism. In traditional Chinese medicine, this mushroom was used for a host of functions, including: kidney, heart, and lung support; management of fatigue; and promotion of longevity.[†]

American ginseng

This root is considered an adaptogen, a substance that helps the body deal with the byproducts of stress. American ginseng contains bioactive compounds (ginsenosides, polysaccharides) that act to protect cells from degradation and modulate the immune system.[†]

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 *Cellular Vitality*.

Ayer HS VM, Stoyanova R, Caprio GD, Clapper ML, Gupta RC. Dietary berries and ellagic acid prevent oxidative DNA damage and modulate expression of DNA repair genes. *Int J Mol Sci* 2008;9(3):327-34.

Austgen L. The Na⁺/K⁺-ATPase (sodium pump). 2006; http://www.vivo.colostate.edu/hbooks/molecules/sodium_pump.html. Accessed March 3, 2010.

B Alberts, A Johnson, J Lewis, M Raff, K Roberts, Walter P. Molecular Biology of the Cell. 2007; 5th Ed. <http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=mbo-c4&part=K396#K466>. Accessed March 9, 2010.

Biondo FD, Robbins SJ, McCargar LJ, Harber NJ, C.J.F. A randomized controlled crossover trial of the effect of ginseng consumption on the immune response to moderate exercise in healthy sedentary men. *Appl Physiol Nutr Metab*. 2008;33(5):966-975.

Bovin D BM, Barrette S, Moghrabi A, Bellevue R. Inhibition of cancer cell proliferation and suppression of TNF-induced activation of NF-kappaB by edible berry juices. *Anticancer Res* 2007;27(2):937-948.

Borges G, A Degeeneva A, Mullen W, A.C. Identification of flavonoid and phenolic antioxidants in black currants, blueberries, raspberries, red currants, and cranberries (Part of the Berry Health Symposium 2009). *J Agric Food Chem*. Publish before Print.

Botanic Oil Innovations Inc. Berry Product Information.

Brokman II, Dardymo IV. New substances of plant origin which increase nonspecific resistance. *Ann Rev Pharmacol* 1969;9:419-430.

Carver JD. Dietary nucleotides: effects on the immune and gastrointestinal systems. *Acta Paediatr Suppl* 1999;430:83-88.

Ehrlich S. Vitamin B1. 2009; <http://www.uminn.edu/atmed/articles/vitamin-b1-000333.htm>. Accessed February 18, 2010.

George Mateljan Foundation. Thiamin-B1. *the world's healthiest foods* [2010; <http://www.whfoods.com/genpage.php?name=nutrient&dbid=100>. Accessed February 26, 2010.

Gourmet Mushrooms. 2005.

Holliday J CM, Wasser SP. Cordyceps. *Encyclopedia of Dietary Supplements*. Vol: Taylor & Francis, 2005.

Higdon J, Drake V, Bates C. Thiamin. 2007; <http://lpi.oregonstate.edu/infocenter/vitamins/thiamin/>. Accessed February 18, 2010.

Higdon J, Drake V, Jacobson E. Niacin. 2007; <http://lpi.oregonstate.edu/infocenter/vitamins/niacin/>. Accessed February 18, 2010.

Higdon J, Drake V, McCormick D. Riboflavin. 2007; <http://lpi.oregonstate.edu/infocenter/vitamins/riboflavin/>. Accessed February 18, 2010.

Higdon J, Drake V, Mock D. Biotin. 2008; <http://lpi.oregonstate.edu/infocenter/vitamins/biotin/>. Accessed February 18, 2010.

Higdon J, Drake V, Piletsky N. Pantothenic Acid. 2008; <http://lpi.oregonstate.edu/infocenter/vitamins/pa/>. Accessed February 18, 2010.

Higdon J, Drake V, Shane B. Folic Acid. 2007; <http://lpi.oregonstate.edu/infocenter/vitamins/fa/>. Accessed February 18, 2010.

Jepson RG CJ. A systematic review of the evidence for cranberries and blueberries in UTI prevention. *Mol Nutr Food Res* 2007;51(6):738-745.

Joseph JA-S-HB, Willis LM. Grape juice, berries, and walnuts affect brain aging and behavior. *J Nutr* 2009;139(9):1813S-1817S.

Kait W BU, McDonald JE, Vinquest-Lynchuk MR, Fillmore SAE, Graf BA, O'Leary JM, Milbury PE. Identification of anthocyanins in the liver, eye, and brain of blueberry-fed pigs. *J Agric Food Chem* 2008;56:705-712.

Knekt P JR, Reunanen A, Maatela J. Flavonoid intake and coronary mortality in Finland: a cohort study. *BMJ*. 1996;312:478-481.

Natural Standard Monograph. Biotin (vitamin H). 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Bromelain. 2010; www.naturalstandard.com. Accessed March 4, 2010.

Natural Standard Monograph. Coenzyme Q₁₀. 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Cordyceps (Cordyceps sinensis). 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Cranberry (Vaccinium macrocarpon). 2010; www.naturalstandard.com. Accessed March 4, 2010.

Natural Standard Monograph. Folate (folic acid). 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Ginseng (American ginseng). 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Grape Seed (Vitis vinifera, Vitis coignetiae). 2010; www.naturalstandard.com. Accessed March 4, 2010.

Natural Standard Monograph. Niacin (vitamin B₃, nicotinic acid), Nicotinamide. 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Pantothenic acid (vitamin B₅), dexpanthenol. 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Pomegranate (Punica granatum). 2010; www.naturalstandard.com. Accessed March 4, 2010.

Natural Standard Monograph. Riboflavin (vitamin B₂). 2010; www.naturalstandard.com. Accessed February 23, 2010.

Natural Standard Monograph. Thiamin, vitamin B₁. 2010; www.naturalstandard.com. Accessed February 23, 2010.

Additional references available upon request.

