

# PhytoGuard®: Your 'one-stop-shop' for phytonutrient benefits



I first became cognizant of the vast potential of concentrated nutraceuticals derived from plants known to support health in the late 1980s. Prior to that, the supplement industry proffered teas and powdered extracts that were basically ground-up plant material. These imparted certain benefits of botanical sources, but were weak and without standardization.

Two trends converged to revolutionize nutraceutical supplementation: First, scientists characterized and isolated certain plant fractions thought to be responsible for the cardinal benefits of certain foods and spices; second, researchers began documenting their benefits in carefully controlled trials—initially with experimental animals, and ultimately with humans. Innovative supplement manufacturers took the initiative to source these higher quality ingredients to offer products superior to mere teas, tinctures, and powders with verifiable amounts of well-characterized, standardized phytonutrients.



That's when I first formulated PhytoGuard®, a revolutionary supplement that I'm proud to say has stood the test of time.

Every couple of years since, I've updated its ingredients to incorporate the latest innovations in nutraceutical technology. The result is the current iteration of PhytoGuard®, our best ever.

Just as a multivitamin offers a wide spectrum of essential nutrients to safeguard against nutritional insufficiency, PhytoGuard® offers a one-stop-shop for the most well-vetted and scientifically-validated phytonutrients. I intended it as a hedge against cancer, cardiovascular disease, and neurodegeneration. These ingredients have documented anti-inflammatory, antioxidant and anti-aging properties. PhytoGuard® offers a way that patients can regularly take a single supplement to supplant the need for six or seven different bottles.

Exposure to environmental perils, such as smoking and pollution, increases oxidative stress beyond the ability of an organism's defense system to cope. The natural mechanism that protects us from free radicals weakens with age. Therefore, the elderly, smokers and those exposed to environmental pollution are more susceptible to degenerative diseases.

That's why I believe that all of us may need to use a supplement like PhytoGuard® to augment the benefits of a healthy diet rich in plant and spice polyphenols.

Here are the ingredients in a capsule of PhytoGuard®:

### **Sulforaphane**

*BroccoPhane® Broccoli Sprout Powder 100 mg  
(standardized to 4000 ppm Sulforaphane)*

Sulforaphane is one of the most exciting nutrients in the integrative medicine armamentarium, harnessing the chemopreventive benefits of cruciferous vegetables. It is no mere fad—its value is substantiated by numerous scientific studies.

Young broccoli and cauliflower sprouts are a particularly rich

source of sulforaphane, which is actually derived from a precursor compound called glucoraphinin. It is also found in Brussels sprouts, cabbage, cauliflower, bok choy, kale, collards, Chinese broccoli, broccoli rabe, kohlrabi, mustard, turnip greens, radish, arugula, and watercress.

Excitement over the cancer-preventive properties of sulforaphane was first kindled in the early 1990's with the work of Paul Talalay and associates at Johns Hopkins Medical School. His group demonstrated that sulforaphane is a potent inducer of detoxification pathways.

Meanwhile, other beneficial properties of sulforaphane have been demonstrated. Because it is a strong promoter of the body's detoxifying antioxidant glutathione, new studies are pointing to its neuro-protective effects. It is an inducer of the anti-inflammatory Nrf2 pathway, and readily crosses the blood-brain barrier. This would make it potentially applicable to such conditions as stroke, traumatic brain injury, Alzheimer's disease, and Parkinson's disease.

And a recent study has created a sensation by demonstrating that autistic subjects receiving sulforaphane had improvements in social interaction, abnormal behavior, and verbal communication.

In a recent *Intelligent Medicine* podcast, Dr. Leo Galland, author of *The Allergy Solution*, named sulforaphane as one of his favorite nutraceuticals for quenching allergies.

And finally, sulforaphane has newly been shown to promote metabolic pathways that facilitate weight loss.

## **EGCG**

*Green Tea (Camellia sinensis L.) Leaf Extract 100 mg  
(standardized to 70% EGCG)*

According to Chinese legend, an emperor discovered tea accidentally 4,000 years ago. Since then, traditional Chinese

medicine has recommended green tea for headaches, depression, digestion, immune enhancement, and to prolong life. Current research demonstrates that green tea guards against cardiovascular disease in many different ways. It lowers cholesterol and improves the ratio of LDL to HDL, reduces platelet aggregation and lowers blood pressure.

All teas (green, black and oolong) are derived from the same plant, *Camellia sinensis*. The difference lies in how the plucked leaves are prepared. The leaves of green tea are not fermented, unlike black tea and oolong tea, so the active constituents remain unaltered.

Green tea contains volatile oils, vitamins, minerals and caffeine, but the active constituents are polyphenols, particularly the catechin epigallocatechin gallate (EGCG). The polyphenols are believed to be responsible for most of green tea's roles in promoting good health.

Polyphenols in green tea have been shown to lessen the risk of several types of cancer, stimulate the production of immune system cells and have antibacterial properties even against the bacteria that cause dental plaque. EGCG also possess thermogenic properties, facilitating fat-burning.

### **Curcumin**

*Meriva® Curcumin Phytosome™ (Curcuma longa root extract/ Phosphatidylcholine complex) 100 mg*

In Ayurvedic medicine, the traditional medicine of India, turmeric has been prescribed for treatment of many conditions including poor vision, rheumatic pains, coughs and even to increase milk production for lactation. Native peoples of the Pacific sprinkled the dust on their shoulders during ceremonial dances as well as used it for numerous medical problems ranging from constipation to skin diseases. It was used for intestinal infections in Southeast Asia. Modern science has discovered the many roles of turmeric.

The active constituent of turmeric is curcumin, a potent antioxidant that protects against free radical damage. Curcumin possesses specific antiviral, anti-inflammatory, anticancer, and cholesterol-lowering effects. Studies have documented its efficacy in rheumatic conditions, in neurodegenerative disorders, and in inflammatory bowel disease. It even has been shown to benefit depression.

### **Pomegranate**

*Pomegranate (Punica granatum) Fruit Extract 100 mg  
(standardized to 40% Punicosides)*

Pomegranate is a rich source of proanthocyanidins, purplish pigments which have anti-inflammatory, vascular-protective, and immune-supportive effects. Pomegranate is among the foods shown to help slow progression of prostate cancer. Read about pomegranate extract's extensive benefits here.

### **Quercetin**

*Quercetin Dihydrate 100 mg*

Quercetin belongs to a class of water-soluble plant pigments called bioflavonoids. Quercetin acts as an antihistamine, antioxidant, and has anti-inflammatory activity. As an antioxidant, it protects LDL cholesterol from becoming damaged. Quercetin blocks an enzyme (aldose reductase) that leads to accumulation of sorbitol, which has been linked to nerve, eye and kidney damage in those with elevated blood sugar. In animal studies, quercetin has been shown to be protective against polychlorinated biphenyls (PCBs) and methylmercury.

Quercetin can be found in onions, apples and black tea. Smaller amounts are found in green vegetables and beans. Currently, quercetin is considered to be supportive for the following conditions: atherosclerosis, cataracts, diabetes, hay fever (seasonal allergies), gout, hypercholesterolemia, and peptic ulcers.

## **Lycopene**

*LycoBeads® natural tomato extract 50 mg  
containing [5%] 2.5 mg Natural Lycopene*

Lycopene, found primarily in tomatoes, is a member of the carotenoid family. Smaller amounts of lycopene can be found in watermelon, pink grapefruit and guava.

Lycopene is an antioxidant, which can donate electrons to quench and neutralize free radical oxygen molecules that are thought to be the source of aging and the cause of a number of degenerative diseases like atherosclerosis, cancer, cataracts, and arthritis.

A study conducted by Harvard researchers examined the relationship between carotenoids and the risk of prostate cancer. Of the carotenoids, only lycopene was clearly linked to protection from cancer.

Of late, lycopene's extensive heart benefits have been recognized. One of the main factors in heart health is the ability of blood vessels to relax and dilate. Researchers sought to test the effects of lycopene on arterial flexibility.

36 healthy people and 36 people with heart disease took 7 mg of lycopene per day or a placebo, with doctors requesting they maintain their regular diets. Before the study, researchers measured blood vessel dilation and found those in the heart disease group had 30 percent less flexible blood vessels compared to the healthy volunteers. After two months, subjects with heart disease who had taken lycopene were found to have 53 percent better blood vessel dilation compared to those receiving a placebo.

## **Resveratrol**

*Polygonum cuspidatum Root Extract 50 mg  
(standardized to 50% trans-resveratrol)*

Resveratrol, found primarily in red wine, is a naturally occurring antioxidant that protects the vascular endothelium. Its presence in Pinot Noir grapes is said to underlie the "French Paradox" whereby red wine consumers are safeguarded from the ravages of the rich French diet.

A series of laboratory experiments suggests that resveratrol inhibits the development and progression of cancer. It may play a role in life extension, as studies indicate it promotes sirtuin pathways, the same mechanism invoked by caloric restriction and intermittent fasting to extend longevity. Resveratrol has been shown to enhance brain circulation, making it an ideal bulwark against vascular dementia.

PhytoGuard® is available exclusively from the Hoffman Center.