

# Phytoguard

Phytoguard is a unique health enhancing supplement designed by Dr. Ronald Hoffman. Let's examine each component of phytoguard to fully appreciate the broad range of applications with which it may be employed.

## Lycopene

Lycopene, found primarily in tomatoes, is a member of the carotenoid family. 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. 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 before they damage cells. Free radical oxygen molecules are thought to be the source of aging and the cause of a number of degenerative diseases.

Scientists believe that excess oxidative stress plays an important role in the initiation and promotion of atherosclerosis, cancer, cataracts, arthritis and other degenerative diseases. Exposure to environmental perils, such as smoking and pollution, increases the oxidative stress beyond the ability of the organism's defense system to cope with it. 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.

## Green tea extract

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 is 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 in this herb.

Green tea contains volatile oils, vitamins, minerals and caffeine, but the active constituents are polyphenols, particularly the catechin called 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.

## Turmeric

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 numerous intestinal infections in Southeast Asia. Modern science has

discovered the many roles of turmeric.

The active constituent of turmeric is curcumin. Curcumin is a potent antioxidant with specific antiviral, anti-inflammatory, anticancer and cholesterol-lowering effects. It protects against free radical damage due to its antioxidant activity.

### **Broccoli sprout extract**

Cruciferous vegetables traditionally have been considered medicinal plants. Dietary indoles, such as indole-3-carbinol (I3C) and diindolylmethane (DIM), are phytochemicals that have recently been recognized as the active constituents in cruciferous plants that promote optimal hormonal and cellular health.

Broccoli sprouts, part of the cruciferous family of vegetables, are rich in sulforaphane and indole-3-carbinol. Broccoli extract naturally contains high amounts of indoles, which are known for their ability to deactivate certain types of estrogen that are linked to cancer. Not surprisingly, people who eat a fair amount of vegetables, such as broccoli, cabbage, Brussels sprouts, kale and cauliflower, tend to have less cancer than those who don't consume cruciferous vegetables. Researchers have conducted many studies that indicate a strong beneficial connection between the indoles and cancer.

### **Ginger root**

Ginger is a perennial plant that grows in India, China, Mexico and several other countries. Traditional Chinese medicine has recommended ginger for more than 2,500 years. Traditionally it was used for abdominal bloating, coughing, diarrhea and rheumatic conditions. Current uses for ginger include atherosclerosis, rheumatoid arthritis, circulation support, chemotherapy support, morning sickness, nausea, motion sickness, digestive stimulant and tonic of the gastrointestinal tract, and as an antioxidant.

### **Quercetin**

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 (5-alpha reductase) that leads to accumulation of sorbitol, which has been linked to nerve, eye and kidney damage in those with diabetes. 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), hypercholesterolemia, peptic ulcers.

### **Resveratrol**

Resveratrol, found primarily in red wine, is a naturally occurring antioxidant that decreases the "stickiness" of blood platelets and helps blood vessels remain open and flexible. A series of laboratory experiments suggest that resveratrol inhibits the development of cancer in animals as well as prevents the progression of cancer. Resveratrol is present in grapes and peanuts. Currently it is utilized to support patients with atherosclerosis and to reduce cancer risk.