

YOUTH FACTOR ENZYME BLEND

UNLOCKING THE POWER OF POLYPHENOLS

WHAT ARE POLYPHENOLS?

It is widely known that plant-based foods are good for our health. We have all heard that fruits, vegetables, legumes, and other edible plants provide us with essential vitamins, fiber and protein. But what is little known is that the biggest benefits of plant-based foods are derived from their rich content of **polyphenols**.

Polyphenols are naturally occurring compounds that are produced by plants to protect them from disease, to guard against the effects of environmental stresses and pollutants, and to help them to recover from injury. More than 8,000 different polyphenols have been discovered in plants, and each one has its own unique and distinctive protective role.

In recent years, a growing number of scientists had speculated that polyphenols might offer similar protective benefits for those who eat plants. And even though serious research only began in 1995, there are now thousands of scientific papers identifying and exploring important roles for plant polyphenols in promoting diverse aspects of human health and wellness. Some of the most exciting research has been on newly discovered polyphenols such as **resveratrol** and **pterostilbene**, each with its own highly promising anti-aging benefits.

POLYPHENOLS – THE ULTIMATE ANTIOXIDANTS

Polyphenols are the most abundant antioxidants in the human diet. In fact, it has been estimated that the average daily intake of polyphenols is 10 times higher than the intake of vitamin C and 100 times higher than the intakes of vitamin E and carotenoids. Even those who are not fruit or vegetable eaters still consume significant quantities of polyphenols from other foods and beverages, including fruit juices, tea, coffee, red wine, cereals, seeds, spices, and even chocolate.

THE FABULOUS FLAVONOIDS

There are four different classes of polyphenols, but of the 8,000 known compounds, more than half of them are from the group known as **flavonoids**. Flavonoids are what give the bright and brilliant colors to all sorts of fruits, vegetables, flowers, and the non-green parts of many plants. They make up the largest share, by far, of dietary polyphenols, so they are of the greatest importance to human health.

Flavonoids are broken into six major sub-classifications, namely:

Flavonols: In addition to providing color to the skins of fruits and vegetables, flavonols help to protect the plant from UV damage that would cause them to wither and die in the sun. Research has shown that flavonols can support optimal blood flow and promote healthy blood cholesterol levels.

Flavones: Found in yellow and green fruits and vegetables, flavones help to keep blood vessels relaxed and open.

Flavanones: Found most notably in citrus fruits, flavanones work to increase the efficacy of vitamin C. Research suggests that flavanones may reduce the risk of heart disease and may help to support the body's normal healthy inflammatory response.

Flavanols: These are the primary flavonoids in green tea and cocoa. There are more than 2,000 scientific studies on green tea alone, with a wide spectrum of health and wellness benefits.

Anthocyanins: Anthocyanins provide red, blue and purple colors to grapes, berries and plants. Research has shown benefits for the eyes, brain, and cardiovascular system. Anthocyanins also support “beauty from within” by fighting pro-aging body enzymes that would destroy collagen and other vital skin proteins.

Isoflavones: These are the bioactive compounds that give soy its well-studied benefits for heart health, hormonal balance and bone health.

A PROBLEM OF ABSORPTION

Flavonoids are undeniably healthful. However, when you consume flavonoid-containing foods, you are most likely not reaping the benefits. The sorry fact is that most flavonoids are poorly absorbed from the digestive tract because, unfortunately, they are in a form that may be perfect for plants, but not for people.

In plants, flavonoids are found as **glycosides**, meaning they are tightly bound to molecules of sugar. This keeps the flavonoid stable until the plant is ready to use it. At that point, the plant secretes special enzymes that hydrolyze (break) the sugar bond, and the active flavonoid is released – in a form called the **aglycone** – that can be used immediately by the plant.

The problem is that we are not plants. We humans produce an enormous array of enzymes – over 75,000 in total – yet we do not produce the highly-specialized **beta-1,4-glucanase** and **beta-1,4-xylanase** plant enzymes that are required to break the glycoside bonds. Some bacterial flora found in the human gut do produce these enzymes, but not everyone carries these bacteria. Consequently, many people who ingest flavonoid-rich healthy foods may not be receiving the benefits.

YOUTH FACTOR ENZYME BLEND – POLYPHENOL POWER, UNLOCKED!

Now, you can unlock the polyphenol power of the flavonoids in your diet. Nerium International has obtained exclusive rights to a proprietary patent-pending blend of plant enzymes that releases flavonoids from their glycoside linkages, converting them to their active aglycone form that is better absorbed and more bioavailable. Developed by America’s leading enzyme research and development organization, Youth Factor Enzyme Blend will immediately start to help you to maximize the nutrient value of the healthy foods that you eat.

THE PROOF IS IN THE CLINICAL SCIENCE

To test the efficacy of Youth Factor Enzyme Blend, a team of research scientists conducted a clinical trial in collaboration with Iowa State University. They chose to study the effect of the enzyme blend on a soy protein drink, because soy flavonoids (isoflavone glycosides) are especially poorly absorbed by the body unless they are first liberated from their accompanying sugar molecules.

The trial was a double-blind study where subjects were administered a soy protein drink either with or without the Youth Factor Enzyme Blend. Plasma samples were analyzed after 0, 3 and 24 hours. The results: *After just 3 hours, Youth Factor Enzyme Blend doubled the absorption of soy isoflavones.*

These findings served to confirm the initial laboratory experiments in which an impressive 88% of the isoflavone glycoside genistin was hydrolyzed to its active aglycone genistein in just 30 minutes.