

Grape Seed Extract

by Margy Squires

Viva la France! Renowned for its accomplished chefs, crusty bread, rich cheeses and infamous wines, France is considered the culinary center of the world. The French are also legendary for their good heart health, despite their consumption of decadently rich foods. It's no surprise that researchers looked for an explanation to this conflicting "French Paradox". What they found was a surprising habit of red wine accompanying most French meals. The wine led them to the grape and the grape to the scientist who discovered its amazing properties, France's own Jacques Masquelier.

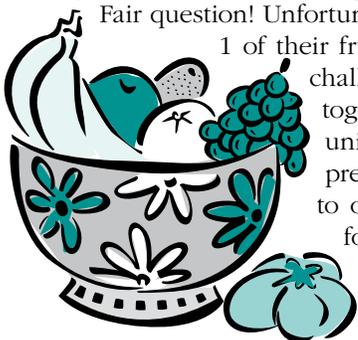
Dr. Masquelier's work extracting compounds from plants started with peanuts in 1948 before moving on to grapes. He found that when he fed laboratory rats the new substance, it was absorbed rather quickly, particularly influencing blood vessels and doubling their strength in a matter of hours. Research was laborious and painstakingly slow. It took Masquelier more than two decades before he completed his work and eventually patented two processes of extraction, one from pine bark, the second from grape seeds. Masquelier himself learned that grape seed extract was the more powerful of the two. Although he called the active compounds "pycnogenols", the name was later changed to more accurately describe the collective properties of procyanidolic oligomers or PCOs, for short. These PCOs can be found in green tea, fruits and vegetables but look to grape seeds as the richest source.

Thanks to Masquelier, we can reap the same healthy benefits as the French. Grape seed extract (GSE) is available as a supplement with a standardized PCO content. GSE works most of its wonder as an antioxidant, protecting cells, tissues and organs from free radicals or oxidative damage. Oxidation is linked to premature aging and age-related disorders such as arthritis, cancer and heart disease. The simplest illustration is to observe a cut apple, exposed to the air. Oxygen breaks down the connective tissues in the apple, turning it brown and causing it to slowly decay. The same process occurs in a much more complicated way in our own bodies. Oxygen, while essential to life, is also our most common free radical. Compared to other antioxidants, GSE is 50 times more potent than vitamin C and 20 times more potent than vitamin E. What's more, GSE stays in the blood longer than either antioxidant (up to 72 hours), giving you sustained antioxidant power against free radicals!

How can grape seed extract benefit you? The following Q&A format will make it easy for you to find the information you need quickly so you can start GSE working for you!

Why do I need GSE if PCOs are found in fruits and veggies?

Fair question! Unfortunately, statistics reveal that Americans on the average only get 1.5 of their vegetable portion and 1 of their fruit. And unless you're eating organic, you'll need antioxidants just to detoxify the chemically challenged produce you do buy! Seriously, GSE contains a trio of PCOs that work quite effectively together and yet have distinct characteristics of their own (defined by the number of their chemical units). Simply put, collectively they fight against viruses, cancers and inflammation, stabilize blood pressure and strengthen blood vessels, to name a few! Like our friend, the apple, your exposure to oxygen is a two-edged sword with decay going on the outside where you can see it—in the forms of wrinkles and sun spots—and on the inside where you cannot.



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Grapeseed Extract

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Can GSE help prevent skin damage?

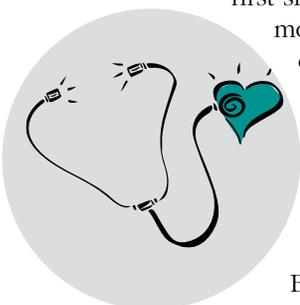
Grape seed extract is good to aging skin. Just as bones are the framework of your skeleton, collagen is the framework of your connective tissue. GSE increases intracellular vitamin C levels necessary to build and repair collagen, and inhibits the enzyme that breaks collagen down. Many topical face creams have GSE in them but an oral dose in supplement form can raise the level of GSE (and C) in your body in hours, working from the inside out. GSE may also slow down skin damage from sun and pollution exposure.

Does GSE help cancer?

A 2006 published study funded by the National Cancer Institute was performed on mice given colorectal tumors. When treated with mega doses of GSE via a feeding tube, the tumors shrank 44% compared to controls but more importantly, an increase in the protein that helps cancer cells self-destruct increased as well. Lead investigators, whose prior work showed GSE beneficial against prostate and skin cancers, caution that the work is preliminary and further studies are planned to better define dosage levels. In a follow-up study by the same authors, human colorectal tissue was tested with similar results. Colon cancer is the second most common malignancy diagnosed in the U.S. and second for cancer related deaths. Yet another investigative study on women with breast cancer testing GSE nears completion and publication. Many previous studies done on cancer and GSE were performed via laboratory on cancerous tissue. In one, GSE was tested on human lung and breast cancer cells and GSE was effective in promoting cell death while normal cell growth was maintained. In another, tissue cells were exposed to the oxidative damage of tobacco and then treated with vitamins C, E and GSE. GSE was 2-5 times more effective than vitamins C or E alone; but the combined trio were even more effective in preventing cell damage and death. *Medical caution: If you have cancer, do not discontinue or interrupt any treatment for cancer or take GSE without consulting your treating physician.*

What about blood pressure, heart disease and strokes?

These three issues are closely related and GSE helps them in a similar fashion. Blockages in blood vessels can cause narrowing, leading to elevated blood pressure, often the first sign of a circulatory disorder. Again, most studies were on animals and on laboratory tissue but a recent human study confirmed both findings. GSE reduces 1) the level of damage to blood vessel linings and 2) oxidized LDL, the sticky form of cholesterol that forms plaque and clogs arteries. Both of these factors increase the



risk of hypertension, atherosclerotic disease and strokes. What's more, maintaining a strong circulatory system is important to overall health as nutrients and oxygen travel via the blood, and likewise waste products and toxins need to be carried off for disposal.

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Is GSE helpful for varicose veins?

The primary use of PCOs is treating vein, capillary and other blood vessel disorders. The blood vessels in our legs particularly are susceptible to varicose or spider veins either through damaged vessels or faulty valves. Tiny one-way valves allow blood to flow upward to return to the heart and lungs. When not functioning properly, blood can flow upwards and leak back from the valve into the vein, causing unsightly bulging, pain, swelling and requiring surgery. Spider veins are blue or purplish in color and are on the leg skin surface. While they may not cause symptoms, they are of cosmetic concern to women. Two different studies, the first on 71 subjects and the second with 364 subjects found that GSE taken at 100 mg three times a day significantly improved major symptoms, including heaviness, swelling, and leg discomfort.

How does GSE help eyesight?

Like the other circulatory studies, good results were found for aging eyes involving blood vessel integrity or venous insufficiency. Diabetic retinopathy, macular degeneration and other disorders showed improved visual and retinal function. Night glare and adaptability to light and dark even improved in normal subjects on 200 mg of GSE a day!



Is GSE better than pcynogenol (pine bark)?

When you compare PCO content of both, grape seed extract has 92-95% compared to pine bark's 80-85% PCOs. But the answer is more than grapeskin deep. Only GSE contains the more powerful PCO gallic esters. Plus, most of the research to date has been done on GSE and even Masquelier

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preferred GSE over pine bark. Michael Murray, N.D., in his book *The Healing Power of Herbs*, states that Masquelier's work was extensive from 1951-71 and again from 1972-78; "conducted with the goal of gaining the approval as a medicinal agent by the French Equivalent of the FDA. Detailed analytical, toxicity, pharmacological and clinical studies were performed on the PCOs derived from grape seeds." The final gold seal comes from France itself since GSE is the only one approved for medicinal use.

What's the best way to take GSE? Is it safe?

Health experts such as naturopathic Michael Murray, Lester Packer Ph.D, and Dallas Clouatre, Ph.D. note that 50 mg a day may be considered a maintenance dose of GSE. However, to provide what's called a "loading" dose to saturate tissues, 150 mg to 300 mg is suggested. Dr. Murray mentions 1 mg per pound of body weight or 150 mg for a 150 pound person. Consider your antioxidant needs, which may differ from someone else's. GSE has been used in Europe for decades and is considered safe and without toxicity.

References are available upon request.

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