Grape Seed Extract

Although the most widely recognized antioxidants are Vitamins A, C and E, the bioflavonoids (vital components of the cells) also play a key role, blocking the detrimental actions of free radicals on body proteins. Bioflavonoids are naturally-occurring plant substances which, as well as performing other important functions, give fruits and vegetables their distinctive colours. In its natural state, vitamin C is almost always accompanied by bioflavonoids, which assist in its absorption, and help it perform its many healthy activities within the body.

Discovered by the explorer Jacques Cartier in the winter of 1534-1535 from the Canadian Indians, a tea made from pine bark was used to reverse the effects of scurvy on Cartier's crew. Four centuries later, Jacques Masquelier, PhD., a researcher at the University of Bordeaux in France, isolated from the pine bark a new class of antioxidants called ogligomeric proanthocyanidins (OPCs).

Dr. Masquelier looked for a less expensive, more readily available source of OPCs, and found it in red grape seeds. Most of the research on OPCs has been done with extracts of grape seeds, which are plentiful in the wine-producing region of France. In addition, the grape seeds have more potent concentrations of OPCs than pine bark.

Over the last 26 years it has been shown that OPCs are likely the most powerful antioxidants known. They are 50 times more powerful than vitamin E, and 20 times more powerful than vitamin C at preventing free radical formation or free radical scavenging. When taken together with vitamin C, OPCs enhance its effectiveness.

As an effective antioxidant, OPCs help our body resist blood vessel and skin damage, mental deterioration, inflammation and other damages caused by harmful free radicals. However, their function is more than protection. They help repair by improving and stabilizing the skin protein collagen and improving the condition of arteries and capillaries. OPCs have four biochemical properties which are beneficial to our body:

1. free radical scavenging
2. collagen binding
3. inhibition of inflammatory enzymes
4. inhibition of histamine formation

Benefits:

Many studies and decades of clinical experiences demonstrate the benefits of OPCs as follows:

- improves skin smoothness and elasticity
- inhibits collagenase and elastinase so to preserve collagen and elastin proteins which is responsible for the well-being of our connective tissues (e.g. skin and joints).
- strengthens capillaries, arteries and veins
- improves circulation and enhances cell vitality
- reduces capillary fragility and improves resistance to bruising and strokes
- prevents heart disease

- alleviates high blood pressure
- prevents and reduces atherosclerosis
- reduces risk of phlebitis
- reduces varicose veins
- reduces edema and swelling of the legs
- helps restless-leg syndrome
- reduces diabetic retinopathy
- improves visual acuity
- improves sluggish memory and senility (able to cross the blood-brain barrier)
- reduces the effects of stress
- improves joint flexibility
- fights inflammation in arthritis and sports injuries (tissue inflammation)
- suppresses allergy symptoms through its inhibiting effect on the enzyme responsible for releasing histamine into the tissue
- protects against ulcer through the inhibition of histamine production in the mucous lining of the stomach
- improves visual field, including enhancement of night vision
- prevents formation of age-related and diabetic cataracts

One of the most powerful bioflavonoids that exists in Grape Seed Extract but not in Pine Bark Extract is a substance called leucoanthocyanin. Free radical damage encompasses a broad range of actions including damage to the fatty compound of the body, disruption of the cell's ability to absorb necessary nutrients, fusing of body proteins and DNA, and damage of the cell's Iysosomes - the enzymes which allow the cell to perform its vital functions. The proanthocyanidin and leucoanthocyanin which usually occur in fruit skin, the envelopes of grain, and seeds have the ability to quench the free radical damages.

However, most of the fruit skins, seeds and envelopes of grain when eaten normally pass through the body intact. Now, grape seed extract provides a high source of OPCs in absorbable form. One of the benefits of obtaining OPCs through grape seed extract is its esterification with garlic acid - a natural plant substance. Esterification is a naturally occurring process involving the combination of an alcohol with an acid, to increase its bioavailability.

Dosage:

In clinical trials, negative side-effects have been non-existent, even after a consistently high dosage. For optimal protection, grape seed extract, like other water-soluble nutrients, should be taken daily. It is recommended that people start with 100-150 mg of grape seed extract daily for one to several weeks, then switch to a maintenance level of 50 mg per day.

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OPC in Practice, Schwitters, B., 1995, Alfa Omega Editrice, Rome, Italy
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