Grape Seed Supreme™ employs a combination of grape seed and grape skin compounds to provide multiple benefits related to cardiovascular and brain function while being protective of various body proteins (collagen, lipoproteins) and inhibiting damaging enzymes.

Two of the extracts contained in Grape Seed Supreme™ (BioVin® and MegaNatural®-BP) have been validated by published research performed on the raw materials.¹⁻³ This is important because the composition and benefits of various grape seed/skin extracts on the market depends greatly on the extraction method used to derive the compounds, as well as on their molecular weight. BioVin® and MegaNatural®-BP were studied for absorption, antioxidant activity, cardiovascular markers (LDL oxidation and blood pressure maintenance effects) and the bioactive substances they contain.¹⁻³

The various benefits observed in trials using wine, grapes and grape seeds are likely to be reproduced by using grape seed/skin extracts in supplemental form if a wide array of the phenolic compounds are present.

The BioVin® component is a water soluble extract of grape with a wide array of polyphenols such as trans-resveratrol, quercetin, catechin, epicatechin, and more.

### Research shows that grape seed/skin extracts may benefit:

- **Connective Tissue**
  - wound healing
  - skin, blood vessels, joints
- **Brain Protection Against**
  - stroke, neurotoxins, aging
- **Cardiovascular Disease**
  - reduce LDL oxidation and plaque formation
  - reduce platelet aggregation
  - support vessel elasticity
  - reduce inflammation
- **Hormonal Health**
  - aromatase inhibition
  - estrogen competition
- **Cancer**
  - estrogen modulator
  - protect DNA from mutagens
  - reduce proliferation
- **Diabetes**
  - reduce AGE induced stress
- May have overall longevity effects

### Cancer Protection
Grape seed extracts inhibit aromatase enzyme, which converts intracellular testosterone into estrogen. They were also found to reduce excessive cell proliferation.

Due to these mechanisms resveratrol may reduce the risk of breast/uterine and prostate cancer similar to the prescription aromatase inhibitors or SERMs (Selective Estrogen Receptor Modulators).⁴⁻⁶ (Alcohol alone increases aromatase enzyme activity!) In addition, resveratrol was shown to reduce breast cancer initiation by blocking the DNA binding of mutagens such as those from burned meats (heterocyclic amines)⁷ as well as cancer cell proliferation (through down regulation of NF-kappaB).⁴

### Cardiovascular Health
The BioVin® wine extract was shown to reduce the oxidation of the protein portion of the LDL by 13%.² The MegaNatural®-BP given at 300mg/day for six weeks also reduce LDL oxidation.⁵ MegaNatural®-BP is considered able to maintain normal blood pressure already in the normal range. One human study using a dose of 150mg/day for six weeks showed reduced blood pressure (SSB/DBP) by 12/8 mmHg.⁵

Wine phenolics such as resveratrol and quercetin have been shown to inhibit platelet aggregation⁸ and suppress the secretion of APOB100, thus likely reducing the number of LDL particles causing a less atherogenic profile.

### Diabetes
Resveratrol inhibits advanced glycation end products (AGEs) -induced proliferation in vascular smooth muscle cells.¹¹
Brain Health\textsuperscript{12-18}

Grape extracts in general were shown to have promise for reducing the progression and pathology of Alzheimer’s\textsuperscript{15,16,17} and brain aging in general.\textsuperscript{14} They are thought to work through three mechanisms:\textsuperscript{18}

1.) their antioxidant effect
2.) increasing intracellular glutathione
3.) reducing cellular calcium flux

Collagen Protection

Grape seed extract was shown to reduce the breakdown of collagen by inhibiting a number of enzymes, such as collagenase, elastase, and hyaluronidase. This is beneficial for skin protection, wound healing, vessel elasticity and joint damage prevention.\textsuperscript{19}

Anti-Inflammatory Action\textsuperscript{19-25}

Oligomeric proanthocyanidins have been shown to exert anti-inflammatory action through various mechanisms: inhibiting NF-kappaB, TNF-alpha, various cytokines, and phospholipase A2.

Longevity Effect

Lifespan extension was achieved in some studies of small organisms by inhibiting the SIR2 enzyme which, in turn, evidence the genetic expression of a longer lifespan. This is the same metabolic switch that caloric restriction seems to operate through. The equivalent gene in humans is SIRT1 and it is believed to have similar effects as to SIR2 gene. Grape seed compounds have been shown to inhibit SIRT1 enzyme in vitro.\textsuperscript{26}

References


BioVin® is a registered trademark of Cyvex Nutrition.

MegaNatural®-BP and its logo are registered trademarks of Constellation Brands Inc.

To contact Designs for Health, please call us at (800) 847-8302, or visit us on the web at www.designsforhealth.com.