

# Resveratrol Supreme



*A powerful combination of trans-resveratrol, quercetin and sunflower lecithin*

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Exciting research continues to emerge concerning the powerful polyphenol resveratrol, which is found in peanuts, berries, the skin of red grapes, red wine, and in the Japanese knotweed plant also known as Polygonum. Resveratrol is produced by certain plants to act as a natural pesticide. In the case of grapes, it concentrates in the skin and protects the plant from mold and bacterial infection. The harsher the climate in which grapes grow, for example, the more resveratrol is found in wine produced from those grapes.

Research shows that resveratrol provides very potent antioxidant protection, estrogen protection, cardio-protection, cancer protection, viral protection and neuron protection. But probably the most exciting news on resveratrol is that researchers at Harvard Medical School are hopeful that it may actually be capable of increasing human lifespan dramatically! They discovered that resveratrol acts as a sirtuin activator, meaning it activates the SirT1 gene, which, when turned on, slows the aging process. It is believed that the trans-resveratrol form is responsible for this anti-aging effect. The polygonum source used in Resveratrol Supreme is standardized to 50% resveratrol, all in the trans form.

## **Resveratrol has the same anti-aging effect as cutting calories**

A study by the Harvard Medical School and the National Institute of Aging shows that a high dose of resveratrol lowers the rate of diabetes, liver problems and other fat-related ill effects in obese mice by mimicking the well known life-extending effect produced by calorie restriction. Mice fed a high-fat diet had a 31 percent decrease in fat-related deaths for obese mice on the supplement, compared to untreated obese mice.

Treated mice also lived much longer than expected. The treated obese mice were just as agile on exercise equipment as lean mice. Also, "the organs of the fat mice that got the resveratrol looked normal when they shouldn't have," said study lead author Dr. David Sinclair of Harvard Medical School. Resveratrol is also being researched by this group for the treatment of diabetes.

## **What is effective dosing?**

One negative aspect to the otherwise positive resveratrol research is that it would be impossible to consume the amount of resveratrol proven effective from normal food sources. The amounts used in one successful mouse study were approximately 22.4 mg/kg body weight per day. Scaling this amount to human body weights could imply an equivalent human dose of 1.5 to 2.0 grams/day. However, if one compensates for the fact that humans have slower metabolic rates than mice, an equivalent human dose may be closer to 200 mg/day. With this in mind, Resveratrol Supreme was designed as the ultimate high potency, high quality 200 mg trans-resveratrol formulation.

## **Resveratrol and quercetin are cardioprotective**

According to a group of Hungarian researchers, up to 20% of serious vascular events in high-risk vascular patients are attributable to a failure of aspirin to suppress platelet aggregation. These researchers discovered that resveratrol effectively inhibited collagen- and epinephrine-induced aggregation of platelets in these aspirin-resistant patients, which may contribute to its cardioprotective effects in high-risk cardiac patients.

When hamsters were fed an atherogenic diet for 12 weeks and then given resveratrol, quercetin and catechin (all found in red wine), the aortic fatty streak area was significantly reduced in the groups receiving catechin (84%) or quercetin (80%) or resveratrol (76%) in comparison with the controls. The researchers concluded: "These findings demonstrate that catechin, quercetin, and resveratrol at nutritional doses prevent the development of atherosclerosis through several indirect mechanisms." Research on quercetin dihydrate reveals that it lowers lipids by reducing hepatic lipogenesis while also lowering cholesterol absorption. In high-cholesterol fed rats, quercetin dihydrate supplements lowered plasma and hepatic thiobarbituric acid reactive substances (TBARS) and increased the hepatic superoxide dismutase (SOD) and glutathione peroxidase activities.

## **Maintaining product stability**

Designs for Health goes to great lengths to protect all raw materials from potentially damaging heat, light and oxygen by storing them in a climate-controlled environment, and in sealed, opaque containers. Encapsulating and bottling takes place immediately after blending. It has been suggested by some marketers that resveratrol is inherently unstable and prone to convert from the trans to cis form, even though the literature consistently shows that polyphenols, including resveratrol, are extremely stable.

These same marketers go on to suggest that only production as a liquid-cap or gelcap can maintain stability. Since Designs for Health is always 'Science First' focused, the many production possibilities of this product were considered while Resveratrol Supreme was under development. The resulting encapsulated combination of resveratrol from polygonum, quercetin dihydrate, and lecithin proved to be the most effective, economical, and stable formulation. In addition, before and after production, each lot is tested for trans-resveratrol content.

### How can we prove resveratrol is stable?

Researchers have proven resveratrol's stability quite conclusively. A study called *Resveratrol and its glycon piceid are stable polyphenols* states, "Plant extracts containing phytopolyphenols, including resveratrol, are extensively used as nutraceutical supplements. Recent reports allege their lack of stability at ambient conditions. We have studied the stability of resveratrol and its glycon piceid in a mixture with a whole grape extract for 2 years (long-term stability) under Good Manufacturing Practice pharmaceutical protocols (at 60% humidity and 25 degrees C).

The compounds were followed for 4 years under conditions of 'accelerated stability,' at 75% humidity and 40 degrees C, all in the presence of ambient air. Chromatographic analysis did not detect any instability, thus disproving the claims to the opposite." The authors concluded, "No storage precautions are necessary for these nutritional supplements."

### Resveratrol and quercetin are neuroprotective

When dopaminergic neurons of the brain were exposed to multiple neurotoxins, resveratrol and quercetin (both sirtuin-activating polyphenols) prevented the decrease of dopaminergic neurons, acting as neuroprotectors. Resveratrol prevented depletion of glutathione and protected against free radicals. Both resveratrol and quercetin have anti-inflammatory action, adding to their ability to protect the heart and nervous system. Researchers have also shown that resveratrol protects brain cells against amyloid beta-induced toxicity.

### Resveratrol and quercetin work synergistically

Resveratrol and quercetin are being researched for how they act on the cancer process, including metastasis. Research by Susanne Mertens-Talcott on human leukemia cells reveals that when resveratrol and quercetin are given together they more strongly induce caspase 3 activity, which means they are able to induce an apoptosis effect on the cancer cells.

Resveratrol acts on the process of carcinogenesis by affecting all three phases: tumor initiation, promotion and progression, and suppresses the final steps of carcinogenesis (i.e., angiogenesis and metastasis). Quercetin inhibits a wide range of protein kinases including epidermal growth factor receptor (EGFR) tyrosine kinase and suppresses the secretion of matrix metalloproteinases.

Supplement Facts	
Serving Size 1 capsule	
Amount Per Serving	% Daily Value
Trans Resveratrol	200 mg *
[from 400 mg <i>Polygonum cuspidatum</i> (root)]	
Quercetin	200 mg *
*Daily Value not established.	

**Other Ingredients:** Cellulose (capsule), sunflower lecithin, microcrystalline cellulose, vegetable stearate, silicon dioxide.



### How to Take:

- As a dietary supplement, take one capsule per day, or as directed by a health care practitioner.

### References

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