

For individuals interested in overall health and well being, maintaining good heart health has long been a leading concern. Along with proper diet and exercise, USDA researchers have established that combatting oxygen free radicals is also important to health. Moderate consumption of red wine has been acknowledged for its health benefits, with a considerable amount of research being dedicated to one of its constituents, resveratrol. A recent significant study performed at Harvard University showed the very promising potential benefits of resveratrol, especially where cardiovascular health was concerned. To offer the advantages that may be provided by red wine, without the effects of alcohol, Re:Plenish blends the high resveratrol content of muscadine grapes with other grapes to create a delicious 2 ounce serving with an Oxygen Radical Absorbance Capacity (ORAC) exceeding USDA recommendations.

## Free Radical Damage and Aging

The USDA Agricultural Research Service posits that “science has long held that damage by oxygen free radicals is behind the maladies that come with aging, including cardiovascular disease and cancer. There’s firm evidence that a high intake of fruits and vegetables reduces risk of cancer and that a low intake increases risk.”

## ORAC Foods

ORAC is short for Oxygen Radical Absorbance Capacity and measures the ability of foods, blood plasma, and just about any substance to subdue oxygen free radicals in a test tube. Studies at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University in Boston suggest that consuming fruits and vegetables with a high ORAC value may help slow the aging process in both body and brain. According to one of the Center’s studies, “By the year 2050, nearly one-third of the U.S. population is expected to be over 65. If further research supports these early findings, millions of aging people may be able to guard against diseases or dementia simply by adding high ORAC foods to their diets. This could save much suffering, as well as reduce the staggering cost of treating and caring for the elderly.”<sup>1</sup>

## High Fat Western Diet

Westerners – Americans in particular – tend to eat a higher fat diet than their counterparts in the East, and new research from University of California-Davis suggests that the effect of a high fat meal on blood vessel walls can vary among individuals depending on factors such as their waist size and triglyceride levels. “The new study

shows that eating a common fast food meal can affect inflammatory responses in the blood vessels,” said Anthony Passerini, assistant professor of biomedical engineering at UC Davis.<sup>2</sup>

## Risks of Long-Term Alcohol Use and/or Overuse

Polyphenols, found in red wine, may help protect the lining of blood vessels in your heart, according to the Mayo Clinic.<sup>3</sup> While the health effects of red wine are considered inarguable, the fact that red wine can also be calorically prohibitive and potentially addictive is relatively certain. One step away from alcohol dependence is another level of problem drinking that the National Institute on Alcohol Abuse and Alcoholism calls alcohol abuse. It is characterized by, “failure to fulfill major role obligations at work, school or home, interpersonal social and legal problems and/or drinking in hazardous situations.” BBC News reports that alcohol triggers the release of dopamine – a chemical which produces feelings of satisfaction. It also increases the production of the brain’s own painkiller – endorphin – which scientists think could be the means by which the brain becomes trained to crave.



As an excellent way to help rejuvenate cells using the power of polyphenolics and resveratrol, the benefits of Re:Plenish are centered on the high ORAC value of the muscadine grape. ORAC, or Oxygen Radical Absorbance Capacity, units represent a value measurement of the ability to combat free radicals, with about 3,000 to 5,000 units recommended per day. Re:Plenish contains 3,764 ORAC units in just 2 ounces. The beneficial complex nutrients and massive dose of polyphenols in each serving of Re:Plenish are more readily absorbed when held in the mouth, providing most of the benefits of red wine without the effects of alcohol or extra calories.

## About Resveratrol

Resveratrol is a plant extract derived from the skin of red grapes, cranberries and blueberries, and can be found in high concentrations in the primary ingredient in Re:Plenish, muscadine grapes. It is known to have potent properties that activate the sirtuin gene said to be responsible for prolonging life and delaying the aging process.<sup>4</sup> Resveratrol is also found in red wine and, according to a 2006 article in the New York Times, is “conjectured to be a partial explanation for the French paradox, the puzzling fact that people in France tend to enjoy a high fat diet yet suffer less heart disease than Americans.”<sup>5</sup>

## Resveratrol and Anti-Aging

In 2004, Dr. David Sinclair of Harvard Medical School, discovered a compound - resveratrol - that activates an anti-aging gene in the body. Following Dr. Sinclair’s breakthrough discovery, there have been several studies to emerge over the next few years linking resveratrol to anti-aging with positive results. Experiments in animal models show resveratrol to effectively neutralize the free radical molecules that attack and damage healthy cells, weaken the immune system and dramatically speed up the aging process. By eliminating free radicals, cells are able to regenerate and heal faster, which consequently slows down the rate of aging.<sup>6</sup>

## Combatting the Effects of High Fat Diets

According to a 2006 New York Times article, researchers at the Harvard Medical School and the National Institute on Aging conducted diet related trials using rats. In one group, mice were given a diet in which 60% of the calories came from fat. The diet started when the mice, all males, were 1 year old which equates to middle-age for a mouse. As the researchers expected, the mice soon developed signs of impending diabetes, with grossly enlarged livers, dying much sooner than comparative mice fed a standard diet.

A second group of “middle-aged” mice were fed the identical high fat diet, except with a large daily dose of resveratrol. The resveratrol did not stop them from putting on weight and growing as tubby as the other fat-eating mice, but it did avert the high levels of glucose and insulin in the bloodstream, and kept the mice’s livers at normal

size. Even more strikingly, the lifetimes of the second group of mice were sharply extended. Those fed resveratrol along with the high fat diet died many months later than the initial group of mice on high fat alone, and at the same rate as mice on a standard healthy diet, effectively allowing the second group to enjoy all the pleasures of gluttony without paying the expected price.<sup>7</sup>

## Health Properties

- *Immunity*

A recent study established a clear link of how resveratrol affects the immune system in humans. The study, published in the Journal of Clinical Endocrinology and Metabolism, showed that resveratrol decreases the inflammatory response of the body.

According to an article in NewsOnHealthCare.com, “blood samples from human subjects who were given 40 mg of resveratrol supplements daily for six weeks revealed the effectiveness of resveratrol in preventing the proliferation of free radicals in the body. The study further established that resveratrol inhibits the inflammatory protein tumor necrosis factor, or TNF, and other compounds that contribute to blood vessel inflammation. The researchers concluded that these findings are consistent with resveratrol’s ability to slow down the aging process.”<sup>8</sup>

- *Cardiovascular*

In June 2011, Science Daily noted that “various clinical trials indicate that this polyphenol [resveratrol] – an antibiotic substance produced by plants as a defense against microorganisms – increases blood flow. In many cases, it also extends the lives of obese animals.” Heather Hausenblas, a University of Florida exercise psychologist, points out that scientists have for many years noticed that a link between resveratrol and human health exists. The French people, for example, enjoy low levels of cardiovascular disease, even though their diets are rich in saturated fats and oils. A University of Florida review of research, says Hausenblas, shows that the resveratrol has considerable potential to improve health and prevent chronic disease in humans.<sup>9</sup>

- *Circulation*

As reported by Livestrong.com, a study published in the 2010 American Journal of Physiology Endocrinology and Metabolism found a connection between resveratrol – which helps with anti-inflammatory and cardiovascular support properties – and nitric oxide, which regulates blood flow. The study looked at cultures of endothelial cells – cells that line the arteries – and found that when resveratrol was introduced, the activation of nitric oxide doubled within 15 minutes and the effect lasted for two hours or more. The same effect was observed when resveratrol was injected into rats. The researchers observed increased capillary blood flow to muscles along with a similar recruitment of nitric oxide within 30 minutes, and the effect lasted for at least two hours. The researchers concluded that resveratrol increases circulation via a pathway that is dependent upon nitric oxide.<sup>10</sup>

## Unique Features

Re:Plenish is a unique product providing a proprietary blend of red grape juices and featuring the powerful muscadine grape as a great source of resveratrol. This blend includes Syrah and Cabernet grape juice, and a grape pomace powder for added benefits.

- Provides the recommended 3,000 – 5,000 daily ORAC units with 3,764 per serving of Re:Plenish.
- Supports healthy circulation and immunity, and provides the nutrient support for healthier-looking skin.
- Provides total phenol level of 3564 mg/L, which is 4x greater than muscadine wine and 6x greater than cabernet wine.
- Provides specific compounds to support the body's fight against free radicals.
- Contains no lactose, gluten, MSG, salt, artificial colors, added sugars or flavors.

## Who Should Use

You should take Re:Plenish if

- You don't consume at least 5 servings of high ORAC foods daily.
- You want extra support for healthy circulation, immunity and younger-looking skin.
- You want to support cardiovascular function.
- You want to fight the aging effects of a toxic environment and poor diet.

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## Frequently Asked Questions

- *What is a free radical?*

A free radical is an extremely active molecule that will cause rapid oxidation of tissues, especially fats. This results in excess rancidity, tissue damage and premature aging if not controlled.

- *What does ORAC stand for, and what does it mean for my health?*  
ORAC is short for Oxygen Radical Absorbance Capacity and deals with the ability to fight free radicals. Ideally, one would get between 3,000 - 5,000 ORAC points a day, though the average person gets somewhere around 1,200.
- *Does red wine have a high ORAC score? Can't I just get my resveratrol from that?*

Red wine does have a high ORAC score, generally speaking, depending on the kind of wine and the grapes used in making it. Re:Plenish is a great alternative for those who wish to supplement their ORAC values without ingesting extra calories or alcohol.

- *What foods are sources of high ORAC points?*

Muscadine grapes, a main key ingredient in Re:Plenish, are extraordinarily high in ORAC points. Other foods include peanuts, kale, spinach, blueberries and cranberries.

## Complementary Products

**FreshAir Surround or Everest** - university tested, environmentally active air purification that works out in the indoor environment to provide cleaner, healthier air to breathe as it helps control and eliminate biological contaminants on exposed surfaces.

**LivingWater®** - offers great-tasting pH-optimized water with buffering alkalinity and antioxidant properties with the convenience of tap water, all at a fraction of the cost of bottled water. When used with naturally occurring extracts and whole-food nutritional products, LivingWater may improve effectiveness by increasing absorption.

**LaundryPure** - supports a "green" lifestyle by helping reduce waste and cut down on energy consumption, eliminating the need to wash clothing in hot water or use detergents. LaundryPure also helps keep laundry chemicals out of clothing, away from sensitive skin, and from going down the drain.

**Re:Fuel** - offers a naturally occurring, whole-food nutritional foundation to build on by covering the body's basic needs of vitamins, minerals and enzymes. Re:Fuel is the starting point for a complete supplementation program.

**Re:Sist** - contains a proprietary blend of herbal extracts, ImmuXT™, Elderberry fruit extract, astragalus root extract, Echinacea extract, Reishi mushroom, Aloe barbadensis and Larch tree arabinogalactans. This blend supports the immune system and includes antioxidants to prevent damage from free radicals.

## Research

Researchers have found that low doses of resveratrol mimic the effects of what is known as caloric restriction, or diets with 20-30 percent fewer calories than a typical diet. In numerous studies, this has been shown to extend lifespan and blunt the effects of aging.

Says senior author Richard Weindruch, a University of Wisconsin-Madison professor of medicine and a researcher at the William S. Middleton Memorial Veterans Hospital, "This brings down the dose of resveratrol toward the consumption reality mode. At the same time, it plugs into the biology of calorie restriction."

Previous research has shown that resveratrol in high doses extends lifespan in invertebrates and prevents early mortality in mice given a high fat diet. The new study, conducted by researchers from academia and industry, extends those findings, showing that

resveratrol in low doses and beginning in middle age can elicit many of the same benefits as a reduced calorie diet.

Another new study on resveratrol compared the genetic crosstalk of animals on a restricted diet with those fed small doses of resveratrol – and the similarities "were remarkable," explains lead author Jamie Barger of Madison, WI- based LifeGen Technologies.

The new resveratrol study is also important because it suggests that caloric restriction and resveratrol may govern the same master genetic pathways related to aging. Says Tomas Prolla, a University of Wisconsin-Madison professor of genetics, "There must be a few master biochemical pathways activated in response to caloric restriction, in which turn activate many other pathways. And resveratrol seems to activate some of these master pathways as well."

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## Key Scientific Studies

Barger JL, Kayo T, Vann JM, Arias EB, Wang J, et al. (2008) A Low Dose of Dietary Resveratrol Partially Mimics Caloric Restriction and Retards Aging Parameters in Mice. PLoS ONE 3(6): e2264. doi:10.1371/journal.pone.0002264

Higdon, Jane; Drake, Victoria J.; Steward, William P. (May 2008). "Resveratrol". Micronutrient Information Center. Linus Pauling Institute. BMJ 2011 ;342:d671

## Ingredients

- Muscadine Grape Juice (*Vitis rotundifolia*)
- Syrah Grape Juice (*Vitis vinifera*)
- Cabernet Grape Juice (*Vitis vinifera*)
- Grape Pomace Powder (*Vitis vinifera*)

## Directions For Use

- Take 2 oz daily
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## Footnotes

1. <http://www.ars.usda.gov/is/AR/archive/feb99/aging0299.htm>

2. University of California - Davis. "Link between obesity, high-fat meals and heart disease reinforced by new study." ScienceDaily, 18 Feb. 2011. Web. 6 Jul. 2011.

3. <http://www.mayoclinic.com/health/red-wine/HB00089>

4. <http://www.newsonhealthcare.com/resveratrol-antidote-to-aging/>

5. <http://www.nytimes.com/2006/11/01/science/02winecnd.html>

6. <http://www.newsonhealthcare.com/resveratrol-antidote-to-aging/>

7. <http://www.nytimes.com/2006/11/01/science/02winecnd.html?em&ex=1162530000&en=f21ab1f020ea35b7&ei=5087%0A>

8. <http://www.newsonhealthcare.com/resveratrol-antidote-to-aging/>

9. <http://www.sciencedaily.com/releases/2011/06/110621114155.htm>

10. <http://www.livestrong.com/article/292548-vitamins-for-poor-circulation/>