

Make Room

Resveratrol is moving in!

by Channing Dallstream

Resveratrol is moving in to the antioxidant neighborhood.

Vitamins A, C and E, along with Alpha Lipoic Acid (ALA) form the original antioxidant block. Then came grape seed extract with its 'French Paradox' and better monetary value than its predecessor, pine bark extract (Pycnogenol®). Now resveratrol is moving in with whispers of not only being the "fountain of youth" but also "the master antioxidant" (hey, wasn't that what they said about vitamin C?). National talk show



hosts and TV health experts rave about its potential benefits, reported to include cholesterol lowering, anti-inflammatory and anti-oxidant properties, as well as slowing Alzheimer's disease, the effects of aging and more. But with anything new, we need to separate fact from rumor with this potentially powerful supplement.



Aging reduces our body's ability to break down free-radicals and oxidants we are exposed to on a daily basis. Antioxidant supplements help the body sweep away the debris when diet isn't enough. Resveratrol researchers have reported it to be a "potent activator" of important biological pathway regulators (sirtuins). Trans-resveratrol, the more usable kind of resveratrol, prompts the body to speed along cell renewal more efficiently through methods including apoptosis, the body's cell "die off" and removal function, which is the difference between cleaning with a vacuum cleaner versus a broom. Plus the sirtuin enzymatic effect "mimics the beneficial effects of caloric restriction, retards the aging process and increases longevity in a number of organisms. It also seems to be effective in delaying the onset of a variety of age-related diseases in mammals (e.g. rodents)."¹ So far, what's not to like?

Resveratrol has been found to be a very strong antioxidant. Its sources are mainly the Japanese shrub knotweed and the skins of certain grape varieties. Like other antioxidants, resveratrol is believed to protect against certain cancers and cardiovascular diseases. A recent report from the National Institutes of Health (NIH) confirms results from 2006 findings that resveratrol improves the overall health and lifespan of overweight, older mice suggesting that resveratrol has the same effect on lifespan as would a reduced-calorie diet.² Since the majority of research has been done "in vitro" (in a Petri dish) and "in vivo" (on living organisms, mostly mice), some want "the new kid" on the neighborhood watch list.

Of course, eating a 'rainbow diet' consisting of a wide variety of deeply-colored fresh, certified-organic fruits and vegetables is a great way of increasing antioxidants. A few table grape varieties have a high concentration of the all-important polyphenols, plant-based antioxidants, and are a good source of vitamin C. However, you'd have to eat 12 cups of red grapes or drink 26 five ounce glasses of red wine to get the same benefits that resveratrol as a supplement offers.³ A low daily dose of resveratrol is considered to be 100 mg, packing an antioxidant punch without the calories, sugar or alcohol! *Health Points* advisor, Dr. Mike Smith, suggests starting with a daily dose of 50 mg.



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Make Room, Resveratrol

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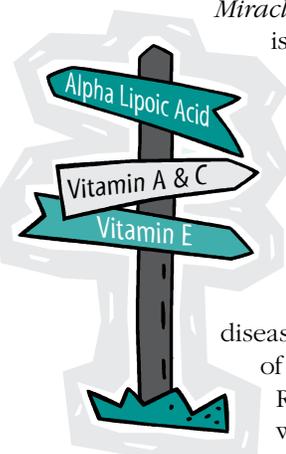
Immune & Other Benefits

Quite a few recent studies focus on resveratrol's positive effect on the immune system. A study by The Institute of Experimental Medicine in Italy "indicate(s) that resveratrol modulates several human immune cell functions" and suggests a relationship between chemicals our immune systems produce while fighting an infection (cytokines) and T-cells, which are important to building immunity.⁴ In her article for *Health Points*, Margy Squires reviews how the immune system works. "Some components are stationary and defend where they are. Other sites provide 'homes' for leukocytes (white blood cells) on reserve."⁵ These reserved white blood cells are responsible for fighting off infection from bacteria and viruses. Results of a 2007 study showed that resveratrol complex encouraged the white blood cells to clean up foreign particles, cell waste material and bacteria. The study concluded that glucan (cellular 'food') and resveratrol work well together to stimulate immune reactions and supports further study of resveratrol's effect on the immune system.⁶

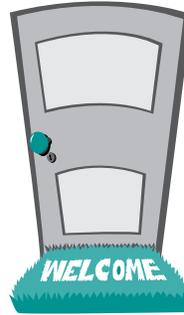
Other research suggests that resveratrol is a "promising nature's weapon for cancer prevention and treatment" with "its ability to trigger and favor the apoptotic cascade in malignant cells".⁷ Its anti-aging properties are cited in the *Journal of Cosmetic Dermatology* which report a "resveratrol based skin care formulation, with 17 times greater antioxidant activity than idebenone" (which claims to have antioxidant properties similar to CoQ10).⁸ A study from Spain concludes "resveratrol reduces the damage in experimentally induced colitis, alleviates the oxidative events and stimulates" the cellular 'die-off'.⁹ Austrian scientists found "promising data" with resveratrol's effect on preventing neurodegenerative diseases such as Alzheimer's, Huntington's and Parkinson's.¹⁰ Global resveratrol research continues to find new benefits from its use.

Does this mean that you should evict your other antioxidant supplements and take resveratrol exclusively? As it turns out antioxidants make good neighbors. Lipoic acid, vitamins E and C, coenzyme Q10 and glutathione form the antioxidant network as described in Lester Packer's book, *The Antioxidant*

Miracle. "The important thing to remember is that each of the network antioxidants is greater than the sum of its parts, and that when combined, they create a juggernaut against the lethal forces of oxidation."¹¹ In a recent study resveratrol was shown to induce glutathione production.¹² "Low glutathione levels have been linked to premature death and disease. It is essential to keep your levels of glutathione high," Packer wrote. Resveratrol seems very neighborly with the other antioxidants.



Should you decide to add resveratrol to your antioxidant supplements, consider that the suggested serving information differs by each manufacturer and is not currently based on human clinical tests. Dr. David Sinclair, a leading resveratrol researcher from Harvard Medical School, suggests 5 mg per kilogram of body weight — about 350 mg per day for the average adult.¹³ Most consider 50 mg a conservative daily dose. "Resveratrol has produced significant effects in animal models, now including mice, where it mimics some, but not all, consequences of caloric restriction. Its effects in humans remain to be studied," said NIH Director Richard Hodes, M.D.¹⁴ Cancer preventing. Immune system strengthening. Anti-aging. Cholesterol-lowering. If research continues down the current path, resveratrol may just be a welcome addition to your supplement neighborhood, too.



Cautions: Resveratrol is not known to be toxic or cause adverse effects in humans, but there have been only a few controlled clinical trials to date. Those who are on blood thinning medications are cautioned against using resveratrol, as well as women with estrogen-sensitive conditions, including some cancers, are advised to consult with their doctor before taking resveratrol. Children, women who are pregnant, nursing or trying to conceive should not use resveratrol particularly due to the potential anti-growth factor properties.

References available by request. Email editor@e-tyh.com.

Channing Dallstream is an avid biker and organic gardener when Arizona's temperatures cooperate. This is her second article for Health Points.

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