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Longevity and Resveratrol

Resveratrol, a naturally occurring substance found in grapes, wine, grape juice, raisins, peanuts, blueberries, mulberries, and cranberries, or calorie restriction – both appear to have an effect on the genetic pathways to aging in a similar manner. Scientists have known for a long time that restricting food intake in animals will increase their longevity by as much as 50%. Researchers have found that low doses of resveratrol mimic the effects of a calorie restricted diet having 20 – 30 % fewer calories than a typical diet.



"Caloric restriction is highly effective in extending life in many species. If you provide species with less food, the regulated cellular stress response of this healthy habit actually makes them live longer," says study author Christiaan Leeuwenburgh, chief of the division of biology of aging at University of Florida's Institute on Aging. "In this study, the effects of low doses of resveratrol (on genes) were comparable to caloric restriction, the hallmark for life extension." Previous research has shown that high doses of resveratrol extend life in invertebrates and prevent early death in mice given a high-fat diet. The new study extends those findings, showing that resveratrol in low doses, beginning in middle age, can elicit many of the same benefits as a reduced-calorie diet. "Resveratrol is active in much lower doses than previously thought," said Tomas Prolla, a UW professor of genetics and a senior author of the new report.

In a groundbreaking study in 2006, investigators studying resveratrol in mammals, found that dietary supplementation with resveratrol protected obese mice on a high-calorie diet, improving their health and extending their life span. The study, conducted by the National Institute on Aging and a group co-led by pioneering researcher Dr. David Sinclair, compared three groups of middle-

aged mice on three diets: a standard diet and a high-calorie diet with and without resveratrol. The mice in the untreated high-calorie group showed signs of obesity, developing enlarged livers, muscle inflammation, early signs of diabetes and heart disease, and dying much sooner than those on the standard diet. However, the resveratrol-supplemented mice developed none of these complications despite being obese. The mice given the high-fat diet and resveratrol lived as long as the mice fed the standard diet and up to 31 percent longer than the untreated obese group.



Behind the resveratrol test is a considerable degree of scientific theory, some of it well established and some yet to be proved. Dr. Sinclair's initial interest in resveratrol had nothing to do with red wine. It derived from work by Leonard Guarente of the Massachusetts Institute of Technology, who in 1955 found a gene that controlled the longevity of yeast, a single-celled fungus. Dr. Guarente and Dr. Sinclair, who had come from Australia to work as a post-doctoral student in Dr. Guarente's lab, discovered the mechanism, by which the gene makes yeast cells live longer. The gene is known as sir-2 in yeast, sir standing for silent information regulator, and its equivalent in mice is called SIRT-1. Dr. Guarente then found that the gene's protein needs a common metabolite to activate it and he developed the theory that the gene, by sensing the level of metabolic activity, mediates a phenomenon of great interest to researchers in aging, the greater life span caused by caloric restriction.

Researchers have known since 1935 that mice fed a calorie restricted diet — one with all necessary vitamins and nutrients but 40 percent fewer calories — live up to 50 percent longer than mice on ordinary diets. This low-calorie-provoked increase in longevity occurs in many organisms and seems to be an ancient survival strategy. When food is plentiful, eat, drink and be merry while breeding prolifically. When famine strikes, switch resources to body maintenance and live longer so as to ride out the famine. Unfortunately we are biologically programmed for this cycle which doesn't come up very often but we still tend to live as if famine is around every corner.

Researchers had long supposed that the increase in longevity was a passive phenomenon: during famine or on a low-calorie diet, organisms would have lower metabolism and produce less of the violent chemicals that oxidize tissues. But Dr. Guarente and Dr. Sinclair believed that an active program that triggered specific protective steps against the diseases common in old age attained longer life. They surmised that it was because these diseases were averted in calorie restriction that

animals lived longer.

Most people find it impossible to keep to a diet with 40 percent fewer calories than usual. So if caloric restriction really does make people as well as mice live longer — which is plausible but not yet proved — it could be helpful to have a supplement that activated the SIRT-1 gene's protein, tricking it into thinking that days of famine lay ahead.



In 2003 Dr. Sinclair devised a way to test a large number of chemicals for their ability to mimic caloric restriction in people by activating SIRT-1. The champion was resveratrol, already well known for its possible health benefits.

The experiment reported tests one aspect of caloric restriction, the reduction in metabolic disease. Calorically restricted mice also suffer less cancer and heart disease, and there is some evidence that neurodegenerative diseases are also held at bay.

This is not to suggest that there is a magic silver bullet for good health. **The obese are starving to death by the choices they make, by choosing to ingest stuff with no nutritional value. If it isn't food and you are eating it, it's a toxin to deal with.** Certainly everybody knows that the best way to live a long healthy life is to make healthy choices and to be disciplined. It's quite easy to avoid the bad stuff and get hooked on the good. The French seem to have a good balance, even using heavy cream. *Perhaps it IS the red wine containing resveratrol.*



Be sure to check out the NSP products featuring Resveratrol including: Cardio Assurance, Super ORAC, Super Trio, Nattozimes Pluse and Cholester-Reg!

Yours in Good Health!

Sincerely,

Dr. Jack and Chris Ritchason
Back to Herbs Team

References:

<http://seniorjournal.com/NEWS/Nutrition-Vitamins/2008/8-06-04-Resveratrol.htm>
<http://www.vrp.com/articles.aspx?ProdID=2564>
http://www.naturalnews.com/024274_resveratrol_health_longevity.html
<http://www.supercentenarian.com/archive/resveratrol-longevity.html>

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