

Guard Your Heart with Nutrition

October 29, 2010 by Alissa Marrapodi, Production Editor

The heart-health aisle is a bit verbose. It's got a lot to say: cholesterol, blood pressure, CVD. Fortunately, there are several companies developing products to address the heart of the matter.

Hawthorn berry may not be top of mind in this arena, but it's a powerful extract. "Cardiaforce Tonic is hawthorn berry and lemon balm extracted in red wine," said Eileen Sheets, managing director, Bioforce USA. "The combination of the antioxidative effects, plus relaxing, antispasmodic effect along with the benefits of the hawthorn berry is very helpful to heart health in our stressful environment." In a 2003 study published in *PhytoMedicine Journal*, 143 patients with cardiac failure NYHA class II were recruited and treated with three times 30 drops of Bioforce USA's Cratagesian (marketed as Cardiaforce in the United States) (n=69) or placebo (n=74) for eight weeks.¹ The results suggested, "the recruited NYHA II patients may expect an improvement in their heart failure condition under long-term therapy with the standardized extract of fresh *Crataegus* berries."

Another company in favor of hawthorn's cardio benefits is Gaia Herbs. "Hawthorn and ginkgo are enormously important in the plant kingdom and provide a foundation for several of Gaia's herbal supplements that support heart health," said Keri Marshall M.S., N.D., medical director, Gaia Herbs Inc. "Both hawthorn and ginkgo have been well-studied in clinical trials to support a healthy heart and improve the flow of blood, in addition to their important naturally occurring antioxidant components."

Many herbs, plant-derived ingredients and fruit extracts can work synergistically. Cardio Well Classic from Get Well Natural combines morinda, a concentrated extract of *Morinda citrifolia* (Noni fruit) used to enhance the body's natural defenses; Prunella, an herb that may provide support the heart's natural abilities to

function normally; salvia, a plant used in Traditional Chinese Medicine (TCM) to improve micro-circulation, increase blood flow to the coronary artery, improve myocardial contraction and adjust the heart rate; notoginseng, a perennial plant that may support improved healthy blood flow to the coronary arteries; eucomia, a deciduous tree that has been used to support healthy blood pressure and the normal absorption of cholesterol; and lycium fruit, which is part of a deciduous shrub that may help promote long life and support healthy blood pressure levels. "The single ingredients themselves cannot work alone to achieve the desired results that a specific combination of herbs can provide," **Dave Leong, manager, Get Well Natural LLC**, noted.

Perhaps one of the most popular ingredients for heart health is resveratrol, a polyphenol found in red wine. The momentum behind this red-wine-based ingredient is incessant, and the research continues to mount, offering a strong foundation for it as a heart-health ingredient. The French Paradox—the French have diets high in saturated fats, yet have a low risk of coronary heart disease, possibly suggesting their red wine intake has something to do with their healthy hearts—may be verifiable via a recent study on trans-resveratrol. A total of 19 overweight/obese subjects with borderline hypertension consumed either 30, 90 or 270 mg of resveratrol (as resVida™, from DSM) and a placebo at weekly intervals in a double blind, randomized crossover comparison.² Researchers concluded: "Acute resveratrol consumption increased plasma resveratrol concentrations and flow-mediated dilation (FMD) (a biomarker for cardio health) in a dose-related manner. This effect may contribute to the purported cardiovascular health benefits of grapes and red wine."

Similarly, Jarrow Formulas supplies PressureOptimizer®, a natural supporter of blood pressure with Polyphenolics'

grape-seed extract MegaNatural®-BP, as well as AmealPeptide® lactotripeptides, SesaPlex™ sesame seed lignans and Glycostat® Wild Bitter Melon Extract.

The benefits of resveratrol are not only circulating in the natural health world but also in mainstream media. In an article on MensHealth.com, "18 Best Supplements for Men," resveratrol was given a nod: "You can't stop the clock, but you can slow it down. This chemical, found in the skin of grapes, seems to interact directly with genes that regulate aging, says David Katz, M.D. Resveratrol has been shown to promote DNA repair in animals, enhance blood flow to people's brains, and halt the growth of prostate-cancer and colon-cancer cells." It gave a shout out to Biotivia's TransMax 500 mg Trans-Resveratrol, as it was chosen as "Our Pick" for a resveratrol supplement. Transmax, a pure trans-resveratrol, has been shown to protect the heart muscle, reduce plaque in the arteries, make blood vessels more elastic, slightly thin the blood to promote better blood flow and increase endurance in animal models, according to the company. "We are passionate about resveratrol because it appears to be one of the most comprehensive supplements to come along in decades," said Philip Akers, COO global operations of Biotivia. "It is not only cardio protective, but is also neuroprotective, promotes healthy blood vessels, has anti-tumor properties, promotes weight loss, is a powerful antioxidant and increase energy while improving sleep."

In 2009, Cyvex Nutrition and ResVez teamed up to create the WineTime Bar featuring Cyvex's BioVin® Advanced red wine extract, which contains 5-percent red wine trans-resveratrol and 30-percent to 35-percent red wine polyphenols, including anthocyanins and other flavonoids; DSM's ResVida® resveratrol; dark chocolate; dates; almonds; and seven superfruits for a heart-healthy bar.

In the same polyphenol family are citrus polyphenols such as Sytrinol®, derived from natural citrus and palm fruit extracts with polymethoxylated flavones (PMFs) as one of the main active ingredients, from Pharmachem. Tangeretin and nobiletin are two of the most common bioflavonoids in citrus fruits. In a 2007 study, 270 mg/d of citrus flavonoids plus 30 mg/d of tocotrienols for four and 12 weeks in hypercholesterolemic men and women aged 19 to 65 years of age significantly improved cardiovascular parameters compared to placebo in all groups. Significant reductions were shown in total cholesterol (20 percent to 30 percent), LDL (19 percent to 27 percent), apolipoprotein B (21 percent) and triglycerides (24 percent to 34 percent).³

Something that often pairs nicely with wine is food seasoned with garlic. Besides garlic's odiferous reputation, it offers tremendous health benefits, and one of those benefits is heart health. Companies such as Wagunaga understand its potential to lower cholesterol and blood pressure. Products in the Kyolic Aged Garlic Supplements line are fortified with other ingredients such as lecithin, hawthorn, nattokinase, folic acid, L-arginine, CoQ10, fish oil and plant sterols to address numerous aspects of heart health—from heart disease to blood pressure.

"Kyolic clinical research has shown aged garlic extract can reduce multiple risk factors," said Jay Levy, director of sales, Wakunaga. "This has allowed us to provide products that target one specific heart-health condition (e.g., cholesterol, blood pressure, etc.), while at the same time provide formulas for overall heart health." In a 2010 12-week, double blind, parallel, randomized, placebo-controlled trial involving 50 patients, Kyolic aged garlic extract was superior to a placebo in lowering systolic blood pressure, similar to current first-line medications in patients with treated, but uncontrolled hypertension.⁴

Omega-3 fatty acids are not a shy ingredient. They spread their benefits across many sectors of health, and there is no lacking of scientific backing for these essential compounds. Nordic Naturals created an entire line of supplements based off omega-3s and their giving nature, pairing them with other popular heart ingredients,

such as red yeast rice and vitamin D, allowing the products to address many conditions. Natrol believes in the "power of three" as well, as it offers two different omega supplements—Omega-3 Fish Oil 1,000 mg and Extreme Omega® with a stronger concentration of omega-3s—both for heart health. "Science has discovered the importance of supplementation in reducing the risk of heart disease, which is underscored by the approved health claims that are allowed for omega-3 fats and plant sterols," said Amy Fitzpatrick M.S., RD, corporate dietitian for Natrol.

The good thing about omega-3s, as well as many other supplements, is they spill over into other categories of health. "Fortunately, many of Barlean's products not only target heart health, so you get a double bang for the same buck," said Jonny Bowden, Ph.D., CNS, Barlean's scientific advisory board member. "Omega-3's have been shown to lower blood pressure, triglycerides and inflammation, all of which are markers for cardiovascular risk; but, they also improve mood and support brain health, not to mention reduce pain and inflammation in joints."

Minerals play an important role in overall health and body's daily functions, but a few highlight the heart health category, such as magnesium. Problem is most Americans are magnesium deficient. "Between our mineral-depleted diet and the depletion of minerals from our soils, and the fact that most Americans do not get the recommended daily amount for magnesium, more than 75 percent of Americans are magnesium deficient," said Carolyn Dean, M.D., N.D., medical director of Nutritional Magnesium Association. "Clinical studies have shown chronic magnesium depletion has direct consequences for both the heart and the blood vessels, including irregular heart rhythms and tachycardia, too rapid heartbeats; abnormal electrical activity in the heart; arteriosclerosis; constriction of the arteries and spasms in blood vessels; high blood pressure; and more."

Companies, such as Peter Gillham's, are passionate about educating and supplying consumers with products that provide the essential mineral. "It is estimated 75 percent of the population has low magnesium levels and yet, this is foundational nutrition," said Ken Whitman, president, Peter

Gillham. "Our view is get the nutritional fundamentals in. That's wellness in practice." Its products, such as Natural Calm, Natural Calm Plus Calcium and Osteo Calm, are a balance of calcium and magnesium that work synergistically for overall good health, including the heart.

"Having any sort of heart-rhythm disorder should cause you to question whether magnesium levels in your body are adequate, since low magnesium levels trigger abnormal heart rhythms," said cardiologist William Davis, M.D., member of the Nutritional Magnesium Association. "In fact, in the hospital, we give intravenous magnesium to quiet down abnormal rhythms."

Fiber is well-known for its hearty benefits, as in 1998 FDA approved a health claim for fiber, allowing for qualified health claims such as, "3 g to 12 g soluble fiber from psyllium seed husk when included as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease," to be placed on labels.

"Psyllium is the basis of many of our products that are geared toward healthy digestion and elimination," said Sunil Kohli, COO, Health Plus Inc. "Psyllium also has an attractive benefit for heart health. Heart Cleanse is formulated with taurine, L-carnitine, hawthorn extract, red grape skin extract, guggulipid extract, CoQ10 and astaxanthin. Heart Cleanse contains specific herbs and nutrients shown in studies to help the heart maintain its functional and structural integrity."

L-carnitine has a hearty reputation for its ability to increase heart muscle viability and support a healthy heartbeat. It's also helpful in maintaining healthy cholesterol and triglyceride levels.⁵ A 2010 Iranian study evaluate the effect of L-carnitine on 29 patients with a history of mild heart failure and diastolic dysfunction. Subjects were randomized in blinded fashion to receive 1,500 mg/d of L-carnitine for three months in comparison to a no treatment group (31 patients). In patients with a history of diastolic heart failure, important indices of diastolic function and symptoms appeared to improve with L-carnitine treatment.

CoQ10 is gaining popularity and awareness, and its ability to pump up heart health is undeniable. Jarrow Formulas sponsored clinical research

that validated its formula Q-absorb™. In 2006, researchers found oral CoQ10 improves functional capacity, endothelial function and LV contractility in chronic heart failure without any side effects.⁶ The researchers noted: "The combination of CoQ10 and exercise training resulted in higher plasma CoQ10 levels and more pronounced effects on all the abovementioned parameters. However, significant synergistic effects of CoQ10 with exercise training was observed only for peak systolic wall thickening score index suggesting exercise training amplifies the already described effect of CoQ10 on contractility of dysfunctional myocardium."

"In 2009, Jarrow Formulas' QH-absorb® was tested at the University of Ancona, Italy, and found to increase total CoQ10 levels from 0.70 mcg/mL to 6.14 mcg/mL and to improve the mean reduced Co-Q10 levels in the plasma from .62 mcg/ml to 5.75 mcg/mL," according to Clouatrite. "This was an increase of 827 percent over baseline in humans."

A Little Retail Advice

One of the best marketing techniques is trust. If you purchase products from trustworthy companies that not only know the ins and outs of their products, but the ingredients as well, it will build trust with customers because they will

be satisfied with their purchase. "Since there are so many products, choosing specific manufacturers you really trust and sticking with their products will cut down the amount of products you are dealing with," Sheets suggested. "Take advantage of the manufacturer's knowledge about their products to become educated on the specific selling points of each product."

The next step as a retailer is education. Educate your employees and arm them with the proper information to help point customers down the right path. "Often, a customer will come in seeking information about a specific condition," Levy said. "A well-educated retailer can point the customer toward research that applies to their needs so that they can better make a decision on which supplement is right for them."

Know the basics, is what Marshall said: "Because heart disease is such a broad health category in general, ranging from high blood pressure and cholesterol, to more extreme cases like congestive heart failure, heart attacks and strokes, it is important for retailers to understand the basics of what makes a heart healthy: improve blood flow and provide antioxidant protection."

And where does this education come from? Manufacturers are a great resource, and should be able to

provide you with great info. But do some reading of your own, as well. "Always read credible journals and sites, such as PubMed," Kohli said. "Get to know the credible suppliers and obtain the science supporting the ingredients. Sub-segment this department into the various targeted needs, e.g., cholesterol, energy, blood pressure, etc. Make these distinctions clear. Without distinctions, this section will be too overwhelming and rather chaotic. For those with limited space, work with the manufacturers and distributors to select the top products."

So why heart health? Why do you need signage, end caps, oversized arrows and everything short of the kitchen sink drawing attention to heart health? "Because," as Bowden said, "if the heart isn't working, then it's game over."

For a list of references, e-mail NPMreferences@vpico.com.