

disease. The research was based on the use of chokeberry fruit extract (*aronia melanocarpa*) of not less than 15% anthocyanins content (*Journal of Atherosclerosis*, 2007). Aronia fruit anthocyanins positively affected the body by strengthening blood vessels, regulating cholesterol, regulating blood pressure, improving memory, concentration and the ability to learn. Vision was also significantly improved, particularly night vision. A formula containing chokeberry extract, grape seed extract and pine bark extract supports all the functions involved with the heart and cardiovascular system.

Aronia Heart Formula contains:

Chokeberry (*Aronia melanocarpa*) Extract 5:1, Chokeberry (*Aronia melanocarpa*) Extract standardized to contain greater than 15% anthocyanidins 300 mgs, Grape Seed (*Vitis vinifera*) Extract standardized to contain 95% polyphenols; French Maritime Pine Bark (*Pinus pinaster*) Extract standardized to contain 85% polyphenols 100 mgs. Contains double the amount of OPC's and 50% more polyphenols than other pine bark; extracted through a unique water method, no solvents or chemicals used. Tannin free.



Berry Healthy Eyes

Millions of people are experiencing eye strain, eye fatigue and the progression of nearsightedness. It is a sign of the times due to the rapid rise in the use of computers, cell phones and PDA's. Never before have our eyes had to be so focused on a specific area for such a long period of time. Due to this highly concentrated eye strain, over time the muscles are gradually retrained into true nearsightedness. In a placebo controlled double-blind crossover study, participants worked at a computer for two hours. The study showed the ability of blackcurrant PCO's and anthocyanins to **improve visual acuity**. Those taking the placebo experienced false nearsightedness while those taking the blackcurrant supplement maintained their normal eyesight. The significance of the study was excellent and strongly demonstrated the protective effects of blackcurrant

extracts. Based on this study, one researchers' comment was that further studies may show that blackcurrant extracts may also prevent retinal disease such as cataracts and age related macular degeneration. In addition, participants supplemented with blackcurrant extracts did not experience eye fatigue nor did they experience the stiffness of the back and neck ordinarily associated with working at the computer. These benefits are related to the improvement in circulation due to the intake of PCO's and anthocyanins. For several decades, anthocyanins have been used successfully to treat eye diseases. **Overall studies show that a combination of berry extracts has produced 73-97% improvement of the eyesight in 8,000 patients with damaged blood vessels. This is a very significant result and a huge benefit to maintaining the health of the eyes. In Japan, researchers studying the benefits of blackcurrant on overall eye function discovered that blackcurrant extracts taken orally has the cosmetic effect of removing otherwise undesirable dark circles from under the eyes.**

Blackcurrant Healthy Eyes Formula contains:

Proprietary blackcurrant complex 450 mgs; contains Blackcurrant (*Ribes nigrum*) Extract 5:1, Blackcurrant (*Ribes nigrum*) Extract standardized to contain greater than 25% anthocyanins, containing cyanidin, delphinidin, coumaric acid and feruloylquinic acid, Grape Seed (*Vitis vinifera*) Extract standardized at 95% polyphenols 50 mgs



Cherry Fruit Extract

The cherry's juicy flavors have dazzled our taste buds for thousands of years. The cherry was noted in Roman writings dating as far back as 73 B.C. The beauty and wonder of the cherry is more than skin deep. The power of the cherry is more than a legend. A look inside this fruit reveals there is more than meets the eye. Cherries have been investigated for their ability to promote cardiovascular health and healthy glucose metabolism. Researchers



have also examined the ability of cherries to inhibit the COX 2 enzyme. Cherry fruit extract provides a simple yet effective way to deliver the wonderful health promoting benefits of the cherry especially with its substantial amount of anthocyanins. Cherries have been studied for their ability to inhibit the enzyme cyclooxygenase. This enzyme is produced in the body in at least two different forms termed COX-1 and COX-2. Research has reported that cherry supplementation induced COX-1 inhibition at levels comparable to common over-the-counter pain relievers. Cherry fruit extract is a healthy choice for joint inflammation. Disease associated with inflammation is often a common culprit of pain. Arthritis pain for example is a result of the harmful effects of inflammation. Pain can often interfere with performance of typical daily activities. **A daily dose of cherries, however, could help the body respond in a healthier manner to inflammatory conditions associated with arthritis. Research has also reported the benefits of cherries in association with the treatment of gout.** The development of gout is frequently tied to high concentrations of uric acid. As the crystals accumulate, they can eventually cause inflammation and joint pain. The flavonoid compounds in cherries have been known to lower serum uric acid levels.

Cherry Fruit Extract Formula contains: Sweet Cherry (Freeze Dried) Extract standardized to contain >0.7% anthocyanins, 1500 mgs TM

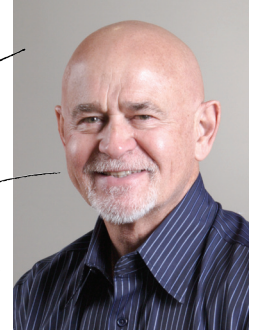
Berry Powerful Medicine

The Better Prevention for Heart Disease, Cancer and Most Major Diseases

Scientists around the world are rediscovering the healing power of fruits and vegetables. They may be the best medicines nature has to offer. In fact, their very colors (pigments) offer much of their therapeutic value. Of all the berries that have been researched, those with the most outstanding spectrum of nutrients include blackcurrants, elderberries, chokeberries, wild blueberries, sweet and tart cherries and grapes (pulp, seed and skin). Berries contain a huge storehouse of nature's most healing compounds which includes vitamins, minerals, polyphenols, anthocyanidins, and pro-anthocyanidins. These very compounds are what make them so beneficial and provide a potent antioxidant effect creating protection for the entire cellular function of the body. Cells die off continuously and new cells are restored at the same consistency. When cells die off faster than new cells are formed, it is the beginning of disease and old age. The antioxidants found in berries, fruits and vegetables offer healthy protection against the destruction of the cells and the ensuing free radical damage. The next step is the inflammatory process of cellular function and 80% of all disease is initiated by inflam-

mation. Some research has indicated that antioxidants, vitamins A, C and E, selenium and manganese, do not prevent disease and are found to be of little value. My personal belief is that while we need vitamins and minerals in our diet, they cannot act alone and when found in nature as they are in berries, they are combined with thousands of synergistic factors that create a more potent factory of nutrients. On a basis of quantity and quality of health benefits, I would much rather take a potent berry supplement or complex before a multi-vitamin and mineral supplement. **Why?** Cardiovascular disease (CVD) and cancer are ranked as the top two leading causes of death in the United States and in most industrialized countries. There is sufficient scientific evidence that supports that both diseases have been linked primarily to diet and lifestyle choices. From the same scientific studies, reports have consistently shown that a high dietary intake of berries, fruits and vegetables is strongly associated with a reduced risk of developing such chronic diseases. We have spent billions of dollars every decade looking for a cancer cure but scientists have estimated that 1/3 of all cancer deaths in the United States could be prevented through appropriate dietary modifications and lifestyle choices. Take for example the Mediterranean

To your good health,
Terry... Naturally



diet which is low in saturated fat with a high intake of monounsaturated fat primarily from olive oil; high consumption of fruits and vegetables; moderate consumption of alcohol and a low consumption of red meat. The so called "prudent pattern" consists of higher intakes of fruits, vegetables, legumes, whole grains and fish. This is in contrast to the "western pattern" which consists of red meat, processed meats, refined grains, high intake of refined sugar, white flour and salt. People following the "prudent pattern" had a significantly lower risk of CVD. The current scientific evidence suggests that a change in dietary behavior such as increasing ones consumption of berry extracts, fruits, vegetables and related lifestyle changes is a practical strategy for significantly reducing the incidence of CVD and cancer. A multi vitamin and mineral supplement containing 30 or 40 nutrients may play a role in a healthy diet. However, thousands of individual plant nutrients have been identified in fruits, berry extracts and vegetables with a large percentage of plant nutrients still unknown and need to be identified before we fully understand the power of phytonutrients in whole foods. Convincing scientific evidence suggests that the benefits of plant nutrients found in whole fruits and berry extracts may be even greater than is currently understood because the oxidative stress induced by free radicals is the beginning of a wide range of chronic



Blackberries

When in doubt, always consult your physician or health care practitioner. This column is to provide you with information to maintain your health.

Subscribe to a free weekly health newsletter at www.TerryTalksNutrition.com

www.TerryTalksNutrition.com



Red Grapes

diseases. Because phytochemicals differ widely in potency, composition and ratio in fruits and vegetables, the synergistic mechanisms to one another offers the best solution as to why they have a beneficial effect greater than the individual parts. Free radicals are highly destructive, unbalanced molecules that are known to cause approximately 60 different diseases. The anthocyanidins and pro-anthocyanidins in berries have anti-radical activity that is 50 times greater than vitamin E and 20 times greater than vitamin C. The formation of large amounts of free radicals may lead to aging and most of our degenerative diseases. Numerous studies have shown that high consumption of fruits and vegetables is associated with a lower risk of chronic diseases such as cancer, cardiovascular diseases, cataracts and hypertension (high blood pressure). A report commissioned by the World Cancer Research Fund and the American Institute for Cancer Research stated that about 20% or more of all cancer cases are preventable with a diet high in various fruits and vegetables. The report recommended a daily intake of 400 to 800 grams per day of fruits and vegetables (1-1½ pounds). Phytochemical extracts from fruits and vegetables have been shown to have potent anti-

oxidant activity and the combination of these plant chemicals from fruits and vegetables is proposed to be responsible for the potent antioxidant and anticancer activities of these foods. Antioxidants found naturally in fruits and vegetables are much more powerful than isolated individual vitamins and minerals. For example, 100 grams, approximately 3 ounces of apples is equivalent to 1,500 mgs of vitamin C. This is far greater than the total antioxidant activity of 0.057 mgs of vitamin C, the amount of vitamin C in 1 gram of apples with peel. In other words, vitamin C in apples contributes less than 0.4% of its total antioxidant activity. Therefore, it is

believed that the antioxidant activity comes from other phytochemicals found in fruits and vegetables, not vitamin C. The natural synergistic combination of plant chemicals found in fruits and vegetables is responsible for the potent antioxidant activity. Apple extracts also contain bioactive compounds that inhibit tumor cell growth in vitro. The plant chemicals in apples with peel inhibit colon cancer cell proliferation by 43%. However, this was reduced to 29% when apple without peel was tested. Recently scientists reported that whole apple extracts prevented mammary cancer in animal models in a dose-dependent manner. Different varieties of fruits and vegetables have different phytochemical profiles. It is therefore recommended that consumers should obtain their vitamins and minerals and phytochemicals from a wide variety of fruits and vegetables for optimal health benefits. Health benefits from the consumption of berry extracts extend beyond lowering the risk of developing cancers and cardiovascular disease: benefits also include preventative effects for other chronic diseases such as cataracts, age relat-

ed macular degeneration, central neurodegenerative diseases and diabetes. The benefit of a diet rich in berry and fruit extracts is attributed to the complex mixture of phytochemicals present in these foods. This explains why no single antioxidant can replace the combination of natural phytochemicals in fruits and vegetables. Therefore, the evidence suggests that antioxidants and the health benefits are best acquired through whole food extracts.

Berry Power

Blackberries, blueberries, grapes, cherries and blackcurrants. Real berry power. Berries may be the best medicines nature has to offer. Everyday scientists are discovering that the most deeply colored berry and berry like fruits deliver the highest natural inherent healing potential. These include blackcurrants, elderberries, choke berries and other fruits from around the world. There are thousands of bioactive nutrients in these fruits and berry extracts. Berries are primarily known as powerful antioxidants. Because of this property they have demonstrated an extremely wide range of health benefits. I highly recommend that you include fresh fruits and vegetables and highly concentrated, standardized berry extracts into your diet to ensure against premature aging, enhance immunity, protect the heart, defend against diabetes and support healthy brain and eye function.



Blueberries

The Berry Antioxidant formula described on this page is what I would use to obtain the greatest antioxidant benefit. Blackcurrants, grape seed extracts and pine bark extracts are very powerful antioxidants. Blackcurrants have a much greater appreciation in Europe and are commonly found in jam and beverages. Used medicinally since medieval times, the fruit leaves and seed oil have been administered for lung problems, urinary tract disorders, sore throat, flu, cancer, allergies, rheumatism, arthritis and also scurvy. Many of these folk remedies, while not proven scientifically, are still recommended for a good reason. Blackcurrants have an extraordinarily high antioxidant activity compared to other foods. Phytochemicals found in blackcurrants work synergistically to destroy harmful free radicals that some researchers believe are involved in the development of all age related diseases. Long called "king of the berries" because of their high nutritional value, blackcurrants contain a greater concentration of vitamins and minerals than any other fruit and an antioxidant activity three times greater than blueberries. Official data from the U.S. Department of Agriculture suggests that in comparison with other fruits, blackcurrants contain up to 14 times as much vitamin C, up to 9 times as much calcium, up to 8 times as much iron, up to 3 times as much potassium, up to 5 times as much magnesium and up to twice as much zinc. Blackcurrants also contain more vitamin A, folic acid and boron than most other fruits. Grapes provide a synergistic health benefit to this formula. Modern grape science reports many healthy benefits. Grapes are loaded with potent phytonutrients including quercetin, resveratrol, anthocyanins and catechins. All four are considered powerful antioxidants. Grape seeds are also known to contain powerful antioxidants. Their antioxidant capacity comes from proanthocyanidins, one of nature's most powerful antioxidant. Research has shown that proanthocyanidins are major free radical scavengers, promotes healthy response to inflammation, supports healthy maintenance of cellular function, promotes healthy response to histamine and allergies, supports maintenance of healthy blood flow and promotes

healthy collagen levels. Extensive research suggests that grape seeds may be beneficial in many areas of health. Grape seeds have been reported to have the ability to bond with collagen consequently promoting healthy skin, tendons, cartilage, bone and connective tissue. One gram of grape seed extract provides 14,000 ORAC units of antioxidant capacity, significantly higher than the average ORAC equivalent of five servings of fruits and vegetables. Overall the formula promotes cardiovascular health, supports healthy brain function, helps maintain healthy cellular function, supports healthy immune response, promotes healthy aging, helps maintain healthy inflammatory response and supports healthy lipid levels.

Blackcurrant Antioxidant Formula contains:

Blackcurrant (*Ribes nigrum*) Extract 5:1; Blackcurrant (*Ribes nigrum*) Extract standardized to contain greater than 25% anthocyanins, 300 mgs, Grape Seed (*Vitis vinifera*) Extract standardized to contain 95% polyphenols, 100% bioavailability; high levels of procyanidins (dimers, trimers and tetramers), free of tannins, 200 mgs; French Maritime Pine Bark (*Pinus pinaster*) Extract standardized to contain 96% polyphenols, primarily dimers, trimers and tetramers, free of tannins, 40 mgs



Black Chokeberries

You may never have heard of black chokeberries since for many years they have been banned as a crop in the United States. They are often referred to as aronia and their deep color ensures that their peak performance as a superlative health food will cause them to become a super star. It is ironic since the chokeberry is native to the United States but all of the world's commercial production and scientific investigation is ongoing in Poland. Aronia is characterized by its exceptionally high concentration of biologically active compounds. Their PCO and anthocyanin content has been measured at 17 and 20% respectively, levels rarely found in any other fruit. In fact,



Chokeberries

they contain a PCO not found in any other berry. Studies conducted at the Polish Institutes and Medical Universities show the chokeberry to be one of the most powerful antioxidants among all known fruits. Chokeberry contains PCO's, anthocyanins and also catechins, the same healthful compounds as found in green tea. This combination is particularly beneficial for the heart and cardiovascular system. Research conducted at the Clinic of Cardiology of the Medical University of Warsaw demonstrated the blood pressure lowering effect of the berry. It is hypothesized that the use of this extract as a daily supplement could have an immense effect on the prevention of heart attacks and stroke. Heart attacks and strokes account for the majority of effects from cardiovascular disease.

Based on research by Dr. M. Naruszewicz, Professor of Pomerania Medical Academy and Dr. M. Dluzniewski, Professor of Warsaw Medical Academy, confirmed that preparations containing aronia reduced both systolic and diastolic values of hypertension (high blood pressure). Conclusion has been drawn that these clinical results are due to the unique influence of anthocyanins on blood vessels manifesting itself by increase of flexibility of the endothelium. Results of their studies prove that anthocyanins found in aronia (black chokeberries) are valuable supplements in the treatment of hypertension and in primary and secondary prophylaxis against ischemic heart