



Disclaimer: The information in this book is provided for informational purposes and is not meant to be a substitute for medical or other advice provided by your doctor or medical professional. This report is not intended to be used as a source or this information in this report is intended to be used for diagnosing or treating a problem or disease. The information and/or statements made in this report is the option of the author and the products mentioned in this report have not been evaluated by any statutory or professional body and are not intended to diagnose, treat, cure, or prevent any disease. If you believe or suspect you may have a health condition, problem or other, please consult your professional healthcare provider immediately. The disclosure of the information in this report is protected under the 1st Amendment of the United States. You have full reprint rights of this book. You do not have permission to change, delete or add information to this book.

Blueberries for a Healthier and More Active Lifestyle

Contents

Introduction: The Blueberry

The Wild Blueberry is Nature's #1 Antioxidant Fruit!

Wild Blueberries Rank Low on the Glycemic Index

Improve vision and Decrease Eye Strain

Blueberries are Good Brain Food

Blueberries and Heart Health

Introduction: The Blueberry!

It has long been a common belief that certain foods provide natural health benefits and these foods offer much more than just dietary value. In addition, new research is revealing that certain foods have natural health benefits, natural healing and disease fighting properties. This is proven since many medicines of today start with the basically the same ingredients found in nature.

This special report will introduce you the antioxidant-rich properties of a little blue fruit called the blueberry. Ongoing research from medical universities show that blueberry can benefit the human body by:

- Improving eye strain and vision
- Improving brain and memory function
- Fighting urinary tract infections
- Providing the body with high levels of ORAC units

Blueberry, like many other foods are a natural source of antioxidants. In addition to the naturally occurring antioxidants, blueberry also have a number of naturally occurring antioxidants including Anthocyanins. But, before we go any further, I will define both: antioxidants and Anthocyanins.

Blueberries for a Healthier and More Active Lifestyle

What is an Antioxidant?

An antioxidant is defined as “any of various substances (as beta-carotene, vitamin C, and alpha-tocopherol) that inhibit oxidation or reactions promoted by oxygen and peroxides and that include many held to protect the living body from the deleterious effects of free radicals.”

Free radicals are unstable molecules that have lost an oxygen molecule. These unstable molecules steal oxygen molecules from healthy cells. One example of the affects of free radicals on healthy cells is the browning of a freshly cut apple or potato. If you have ever cut an apple or a potato and let it set on the counter for 20 minutes you have witnessed the affects of free radicals. The browning of the exposed fruit is what is called “cellular rust.” Antioxidants help they body to fight free radicals and help to slow the aging process.

What are Anthocyanins?

Anthocyanins are responsible for giving nature its vibrant colors. Anthocyanins are present in every fruit and vegetable that has color. You can see the overwhelming presence of this pigment when you visit an orchard or the fresh produce section of your local grocery store. Anthocyanins are present in blueberries, blueberries, strawberries, apples, and red raspberries to name a few. In addition, Anthocyanins are the phytochemicals responsible for changing the colors of the leaves from green to fiery red, orange, purple, yellow and more.

Anthocyanins have long been the study of botanists due to their phytoprotective capabilities. To date, over 300 distinct types of Anthocyanins have been identified. Based upon research, Anthocyanins belong to one class of flavonoids. Flavonoids include a number of different classes including flavones, flavonones, flavon-3-ols and flavonols to name a few. Different classes of flavonoids have different oxidations states. Thus, from an oxidative standpoint, different fruits and vegetables offers different oxidative degrees.

Below is the nutrition information for several different types of blueberry products:

Blueberries for a Healthier and More Active Lifestyle

A daily serving (1/4 cup – 100g) of fresh blueberries provides the following:

- 84 Calories
- 1.10 g protein
- 21.45 g Carbohydrates
- .49g Fat

A daily serving (1 oz. – 100g) of frozen blueberry

- 28 Calories
- .65 g protein
- 18.86 g Carbohydrates
- .99 g Fat

The Wild Blueberry is Nature's #1 Antioxidant Fruit!

In 2004, the Journal of Agricultural and Food Chemistry showed research results conducted by the USDA on this little blue fruit. The research results revealed the antioxidant capacity of the wild had the highest antioxidant capacity, per serving, of more than 20 other fruits used in the research. The researchers used ORAC – Oxygen Radical Absorbance Capacity to compare all of the fruits used in the research. The researchers found that a one-cup serving of wild blueberries racked up more total antioxidant capacity than a serving of cranberries, raspberries, plums and cultivated blueberries.

Wild Blueberries Rank Low on the Glycemic Index

The Wild Blueberry scored a 53 on the Glycemic Index (GI) making it a low GI food. Research indicates the low GI foods causes smaller rises in blood glucose levels when compared to high GI foods. Consuming low GI foods are important consideration for those with diabetes.

The Glycemic Index Explained

Blueberries for a Healthier and More Active Lifestyle

The Glycemic Index is a popular ranking of carbohydrates foods according to their effects on blood glucose levels. The index compare individuals foods to white bread or glucose and ranked on a total 100-point scale with white bread being the marker for the index. According to the index, a GI ranking of 70 or more is high, 56 to 69 is medium and 55 or less is low. Some high end food examples include corn flakes and crackers, while low-end GI foods include fruits, non-starchy vegetables and beans.

The GI scale is important because is allows everyone, especially people with diabetes to plan healthy meals and wise food consumption decisions. In addition, the GI index may also effect weight loss ability and as appetite control gauge.

What Makes the Blueberry an Effective Eye Soother?

Some research indicates this little blue fruit has high amounts of a naturally occurring compound called anthocyanins. In fact, anthocyanins is what gives the fruit its blue hue. Anthocyanins have an amazing effect in the human body such as strengthening capillaries and peripheral circulation. This would mean it helps to assist the blood flow in and around the eyes. Thus, this improved blood flow may be responsible for the numerous claims of naturally improved vision and the reduction of eye related irritations.

Interestingly, World War II British Air Force pilots who ate blueberry jam on their bread were found to be more accurate in their bombing missions than other pilots. European studies conducted on the bilberry, the European cousin of the blueberry, offers documented evidence between bilberries and improved eyesight. Japanese research touts the ability for blueberries help fight eye fatigue.

Blueberries are Good Brain Food

Several studies conducted on blueberries point to interesting results. A study from the USDA in 1999, showed a diet rich in blueberry extract helped to fight some loss of coordination and balance and showed improved short-term memory in aged rats (1)

Blueberries for a Healthier and More Active Lifestyle

A free radical is an unstable oxygen molecule that has lost one or more of its electrons. These unbalanced molecules are extremely reactive with other molecules. To offset this imbalance, free radicals attempt to steal needed electrons from other molecules.

Free radicals have a negative effect on other cells, since they can burst cell membranes and causes cells to malfunction. One of the best ways to think of the affects of free radicals on the body is it causes “cellular rust”. For example, it is free radicals that cause a freshly cut apple or potato to turn brown. Since the brain only accounts for about 2% of the total body weight it represents approximately 20% of oxygen consumption, thus fighting free radicals in the body and brain is vital.

Blueberries are a major source of flavonoids that have diverse biochemical and antioxidant benefits. Research has shown that these flavonoids have the ability to cross the barrier between the brain and blood flow. Short-term and long-term memory is controlled by tiny brain cells called neurons. Researchers believe the unique flavonoids in blueberries may help memory and learning by enhancing the connection between these tiny neurons. By enhancing and improving communication the neurons may regenerate themselves. In addition, food scientists have been able to identify the specific are of the brain responsible for memory-control and learning. This specific area of the brain is the hippocampus. Thus, increased flavonoid consumption can have a positive affect on the memory.

The USDA Human Nutrition and Research Center fed mice blueberry extractions (ie blueberry powder) the equivalent of the person eating one cup of blueberries in an attempt to test motor skills tests. The researchers found that the mice fed to blueberry powder had better motor learning and memory then the non-blueberry fed test groups. After the researchers examined the brains of the control mice, the researchers found a marked decrease in the oxidative stress of two regions of the brain when compared to the control group of mice.

According to the research results, the compound responsible for the neuron production appears to be Anthocyanins. This ubiquitous compound is found all across nature may be the key component to many natural health benefits of the blueberry. In addition, the researcher also have on-going studies on humans and blueberry powder. Preliminary results from this studies show

Blueberries for a Healthier and More Active Lifestyle

that human test subjects that eat one cup of blueberries per day perform 5-6% better on motor skills test than the control group used in the research

Blueberries and Heart Health

Blueberries may help to reduce the build-up of LDL, the so called “bad” cholesterol. This contributes to stroke and cardiovascular disease. In addition, the University of Maine investigated the functional affects of structural molecules of the aorta of test rats.

After a 13-week study, a group of test rats received a standard diet that was supplemented with eight percent of wild blueberry powder. The scientists involved in the research focused on the glycosaminoglycans (GAGs). These are carbohydrate molecules in the blood vessel walls of the aorta. The results of the study indicated that diets enhanced with wild blueberries had the ability to significantly alter the structure and composition of the aorta walls of the test subjects and the blueberry-fed group could be the protective factor from the research.

Blueberry Supplements and Blueberry Products

The blueberry offers a number of ways to enjoy the natural health benefits including dried blueberry, blueberry juice concentrate, blueberry capsules and more. Below are some of the ways and sources to incorporate blueberry into your daily diet.

- **Fresh Blueberry:** When in season, you can get fresh blueberries straight from the farm market or the produce section of your local store. Unfortunately, fresh blueberry are only in season for a few short weeks during the summer months. Thus, find fresh blueberries may be very difficult.
- **Frozen Blueberry:** Enjoy a few thawed blueberries in your pancakes or muffins. To get your hands on frozen blueberries visit the refrigeration section of your local grocery store.
- **Dried Blueberry:** A handful of dried blueberries make a great healthy snack or an addition to your morning cereal. They also make a good alternative to the candy in the candy jar next to your computer. Dried blueberries make a great choice since they are available year round. One

Blueberries for a Healthier and More Active Lifestyle

source for dried blueberries is Traverse Bay Farms www.traversebayfarms.com The company will ship dried blueberry directly to your home or office.

- **Blueberry Juice Concentrate:** Blueberry juice concentrate is a concentrated way to get the natural health benefits of this ruby red fruit. One source for blueberry juice concentrate is Traverse Bay Farms www.traversebayfarms.com
- **Blueberry Extract (Super Fruit Supplements):** Blueberry supplements are the most convenient and easiest way to get the natural health benefits of the blueberry. These super fruit dietary supplements start with the whole blueberry. The entire blueberry is used to produce the blueberry capsules, including the skin and the flesh of the fruit. A good source for blueberry capsules is from Fruit Advantage www.fruitadvantage.com

Sources for Blueberry Products:

Blueberry Juice Concentrate: Traverse Bay Farms www.traversebayfarms.com

Blueberry Capsules (blueberry powder): Fruit Advantage www.fruitadvantage.com

Dried Blueberries: Traverse Bay Farms www.traversebayfarms.com

Sources for Additional Antioxidant and Anthocyanins Information:

American Heart Association – www.americanheart.org

American Medical Association – www.ama-assn.org

Center for Disease Control – www.cdc.gov

Food with Benefits – www.foodwithbenefits.com

Fruits and Vegetables Matter – www.fruitsandveggiesmatter.gov

Orchard of Health – www.orchardofhealth.com

5 Day Program - www.5aday.gov