

Studies on Tart Cherry

Cancer-Fighter Perillyl Alcohol Found in Tart Cherries

Research at the University of Iowa is showing the amazing properties of cherries. According to Raymond Holm, M.D. at the University of Iowa, tart cherries contain perillyl alcohol (POH), a natural compound that is extremely powerful in reducing the incidence of all types of cancer. Perillyl alcohol "shuts down the growth of cancer cells by depriving them of the proteins they need to grow," explains Dr. Hohl. "It works on every kind of cancer we've tested it against."

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Independent Lab Verifies Cancer Fighting Agents in Tart Cherries

Researchers at Brunswick Laboratories (Wareham, Mass.) verified the natural antioxidants present in Montmorency tart cherries, the leading U.S. tart cherry variety, will be available for use in products soon. Lead researcher Dr. Boxin Ou also confirmed the presence of substantial quantities of melatonin. He also identified two important flavonoids -- isoqueritrin and queritrin -- and documented the presence of ellagic acid in cherries.

Ellagic acid is a natural occurring plant phenolic that is known as a potent anti-carcinogenic/anti-mutagenic compound. Clinical tests conducted at the Hollings Cancer Institute at the Medical University of Southern Carolina (MUSC) shows that ellagic acid may be the most potent way to prevent cancer.

The flavonoids -- isqueritrin and queritrin -- act as antioxidants as do the anthocyanins. They work to eliminate by-products of oxidative stress and thereby slow the aging process.

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High Quantity of Melatonin Identified in Tart Cherries

The University of Texas Health Science Center recently began to quantify the availability and activity of the Melatonin in cherry products. Melatonin is a potent antioxidant for which there is extensive evidence showing it to be significant in improving the body's circadian rhythms and natural sleep patterns. Melatonin is rapidly absorbed by the body, and it is predicted that eating just a handful of cherries will increase melatonin levels in the blood, thereby improving the body's natural sleep patterns.

Scientists have discovered high levels (13.5 ng/g) of the antioxidant melatonin in Montmorency tart cherries.

In addition to its antioxidative properties, melatonin, has been shown to possess anti-inflammatory properties.

From the Cherry Marketing Institute

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Michigan State University First to Identify Anthocyanins in Tart Cherries

"Twenty cherries provide 25 mg of anthocyanins which help shut down the enzymes that cause tissue inflammation in the first place, so cherries can prevent and treat many kinds of pain", states Dr. Nair, Michigan State University Researcher. Anthocyanins are plant pigments responsible for the bright red color of cherries. These pigments are known to have antioxidant activity and antioxidants are believed to play a role in reducing the risk of various human degenerative diseases. Tart cherries contain anthocyanins and flavonoids which inhibit the enzymes and prevent inflammation in the body. These compounds have similar activity as aspirin, naproxen, and ibuprofen. The anthocyanins may also protect artery walls from the damage that leads to plaque buildup and heart disease. Recent studies show that anthocyanins do a better job of protecting arteries than vitamins C and E.

There are 17 antioxidants in tart cherries. Two of these, anthocyanins 1 and 2, can inhibit the cyclooxygenase (COX) enzymes which are associated with the pain of arthritis and gout. In comparison of 10 small fruits, cherries had the highest level of anthocyanins 1 and 2. Anthocyanins 1 and 2 are NOT present in blueberries or cranberries.

From the Cherry Marketing Institute

Melatonin

What's new on MELATONIN?

As we grow older we produce less and less melatonin. Also, if there is some sort of trauma in our lives at any time we do not produce as much Melatonin. This could have a great deal to do with why people are not sleeping well. Perhaps it is more than stress. It is because they are not producing enough Melatonin to tell them that it is time to sleep. Tart Cherry Juice Concentrate is loaded with Melatonin.

Dr. Russell Reiter, University of Texas Health Science Center, is said to be the Dean of Melatonin Research and he gives cherries high marks. We were surprised at how much Melatonin was in cherries, specifically the Montmorency variety, says Reiter. And Tart Cherry Juice Concentrate, which involves greatly reducing the water content, has ten times the Melatonin of the raw fruit. Tart Cherries contain an extremely significant quantity of melatonin, enough to produce positive results in the body.

Montmorency cherries, which account for the majority of tart cherries produced in the United States, contain up to 13.5 nanograms (ng) of melatonin per gram of cherries, more than is normally found in the blood. Melatonin is by far the most potent of the antioxidants, much more so than vitamins C, E and A. The reason: melatonin is soluble both in fat and water and can therefore enter some cells that vitamins cannot. For example, vitamin E is soluble in the lipid part of the cell only and vitamin Compounds (called limonenes) are used as food additives and are found in the blood. Melatonin is by far the potent of the antioxidants, much more so than vitamins C, E, and A. The reason: melatonin is soluble both in fat and water and can therefore enter some cells that vitamins cannot. For example, vitamin E is soluble in the lipid part of the cell only and vitamin C in the aqueous part. Melatonin is soluble in both. For this reason, Dr. Reiter says, eating cherries with high melatonin concentrations will increase the antioxidant capacity in the body.

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Antioxidants

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He also documented the presence of ellagic acid in cherries. Ellagic acid is a naturally-occurring plant phenolic that is known as a potent anti-carcinogenic/antimutagenic compound. Clinical tests conducted at the Hollings Cancer Institute at the Medical University of South Carolina show that ellagic acid may be the most potent way to prevent cancer. It also may inhibit the growth of cancer cells and arrest the growth of cancer in subjects with a genetic predisposition for the disease.

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Tart Cherry Anthocyanins Inhibit Tumor Development

New studies at Michigan State University (MSU), which were recently published in Cancer Letters, suggest the tart cherries may reduce the risk of colon cancer because of the anthocyanins and cyanidin contained in the cherry. Dr. Mauraleedharan Nair and Dr. Leslie Bourguin along with several graduate students worked on experiments that are part of ongoing research on the components of tart cherries.