

Cornell researcher finds that eating apples may help fight breast cancer



According to six recent studies conducted by Cornell researcher Rui Hai Liu, eating an apple a day may keep breast cancer at bay.

In one study, Liu found that fresh apple extracts significantly inhibited the number of malignant tumors in rats with mammary cancer. He also found that the prevalence of a type of adenocarcinoma – a highly malignant tumor and the main cause of death in breast cancer patients – was reduced 24 percent just by consuming one apple a day.

According to the American Cancer Society, breast cancer is the second most common cancer among women and accounts for more than 1 in 4 cancers diagnosed in US women.

During the 24-week study, rats were fed low, medium or high doses of fresh apple extracts, or the equivalent of one, three or six apples a day in humans. As a control mechanism, one group of rats was left untreated. The apple diet reduced the number, size and growth rate of tumors, although the effect on tumors was more significant for those given a higher dose of apple extracts.

The study demonstrated the important role of phytochemicals, a group of non-nutrient plant compounds. Two phytochemicals - phenolics and flavonoids – are common in apples and other fruits and vegetables. In fact, 33 percent of the phenolics consumed annually by Americans come from apples.

Phytochemicals have antioxidant properties and help neutralize unstable molecules, known as free radicals, which can cause permanent damage to the body's cells. Over time, free radical damage can lead to the onset of chronic diseases, including many forms of cancer.

In another study, Liu found apple phytochemicals to inhibit an important inflammation pathway in human breast cancer cells.

To reap the benefits of these anti-cancer compounds, be sure to eat the entire apple - skin and all. The skin contains a significant amount of the fruit's antioxidants and other nutrients.

Sources:

1. Chronicle Online. 2009. "In flurry of studies, researcher details role of apples in inhibiting breast cancer." S. Lang. <http://www.news.cornell.edu/stories/Feb09/apples.breastcancer.sl.html>
2. American Cancer Society. 2009. "Breast cancer: key statistics." http://www.cancer.org/docroot/CRI/content/CRI_2_4_1X_What_are_the_key_statistics_for_breast_cancer_5.asp?nav=crl

Researchers discover why sticking to low-glycemic foods makes you feel full

Great news for fruit lovers! A recent study by researchers at King's College in London revealed that low-glycemic foods, such as fruit, not only release sugar slowly into the body, but also may help you feel fuller, longer.

This was the first study to demonstrate the relationship between low-glycemic foods and satiety, or the feeling of fullness. The Glycemic Index (GI) is a well-known measurement that ranks foods that contain carbohydrates by their effect on the body's blood sugar levels (also known as glucose levels). Foods rank 'low' if they score under 55 and are deemed 'high' with a score over 70.

How Stemilt Fruits Rank on the Glycemic Index

Fruit	Score	Rank
Apples	38	Low
Apricots	47	Low
Blueberries	40	Low
Cherries	22	Low
Nectarines	42	Low
Peaches	42	Low
Pears	38	Low

* Score is based on each fruit's standard serving size

Led by Dr. Reza Norouzy and colleagues, the study looked at the effects one low-glycemic meal had on hormone levels in the stomach. Twelve participants ate the same dinner (with medium-glycemic foods) and either a low-glycemic or high-glycemic breakfast.

Following the breakfast, researchers took five blood samples at different time intervals, measured insulin and levels of the hormone GLP-1, which has been shown to cause the feeling of fullness.

Norouzy and colleagues found that volunteers who ate a low GI breakfast had 20 percent higher GLP-1 levels and 38 percent lower insulin levels than those that ate a high GI breakfast.

The spike in GLP-1 levels supports the researcher's theory that eating low-glycemic foods increases stomach hormone production and suppresses the appetite.

Eating foods low on the glycemic index may also help reduce cholesterol levels, lose / maintain weight, improve diabetes control and reduce the risk of heart disease.

Source: Science Daily. 2009. "Scientists discover why a low GI meal makes you feel full." <http://www.sciencedaily.com/releases/2009/03/090317201139.htm>

Nutrition Roundup from Stemilt Growers

The 'super' health benefits of sweet cherries

While their great taste may be deceiving, cherries are one of nature's best superfoods. In fact, cherries are one of the top 20 foods with the highest concentration of antioxidants. Read on to learn about the many potential health benefits of sweet cherries that have been suggested by recent research.

Anti-Inflammatory Benefits: Great news for arthritis sufferers! A recent study suggests that a bowl of cherries may help alleviate pain and inflammation associated with arthritis. The UC-Davis study found that eating cherries decreased blood plasma levels while simultaneously increasing the amount of uric acid removed through urine - two signs of a healthy immune system fighting inflammation.

Powerful Cancer Fighter: Fiber, vitamin C, carotenoids and anthocyanins - cherries are packed with antioxidants, or cancer-preventing compounds. The antioxidant properties found in cherries neutralize free radicals and may help to protect cells from the carcinogens that cause different types of cancer.

The Natural Sleep Aid: Cherries are one of the few foods with significant amounts of melatonin - a hormone produced by the pineal gland in the brain that plays a key



role in regulating the body's internal clock. If you are traveling across-time zones, caring for a newborn or simply sleep deprived, consider eating a handful of cherries for melatonin. It's a natural way that may help you regulate sleep.

Memory Booster: The melatonin found in cherries may also help maintain optimum brain functioning and deter the onset of age-related chronic diseases like Alzheimer's. Research also suggests that anthocyanins—the pigment that gives cherries their red color—can protect neural cells and promote brain health.

Heart Helper: Cardiovascular disease, or heart disease, is the single leading cause of death in America. One of the many health benefits of cherries is that they contain powerful antioxidants called anthocyanins, which may protect the heart and surrounding tissue, inhibit plaque formation and reduce inflammation.

Simple tips to keep your produce fresh

There is nothing worse than having to toss out an untouched bag of once-fresh fruits and vegetables. But according to a study by the University of Arizona, this is a common practice for families in the United States. They estimate that the average U.S. household throws out nearly a quarter of the fruits and vegetables it purchases each year. That's equivalent to about \$500 dollars a year for a family of four!

The recent economic downturn has people everywhere being a bit more frugal. The good news is that your budget for fresh fruits and vegetables can stay the same - simply by following these storage tips that keep perishables fresher, longer:

1. Store fruits and vegetables in separate areas of the refrigerator. To become ripe, some fruits (like apples or pears) naturally release ethylene gas, which is great for the fruit, but may cause vegetables to go bad faster. Additionally, some vegetables give off odors that can be absorbed by fruits and impact their quality.
2. If you don't plan to use a particular fruit right away, consider freezing it. Sweet cherries and berries may not have a long shelf life, but these fruits can last up to a year when frozen properly.
3. The crisper drawer does wonders in keeping fruits and vegetables fresh! Keep them in plastic produce bags for best results.
4. Keep water off fruits and vegetables until you are ready to use / eat them.
5. Know which fruits need to be refrigerated and which do not. All Stemilt fruit should be refrigerated to maintain freshness and quality. Pears are the exception; these fruits may need to ripen on the counter before being refrigerated.

Source: UA News. 2004. "Study: Nation wastes nearly half its food." J. Harrison. <http://uanews.org/node/10448>

Cherry Muffins

Start your day off right with delicious cherry muffins. These colorful, easy-to-make muffins are rich in antioxidants and will surely be a hit at any brunch event this summer. For more healthy fruit recipes, visit www.stemilt.com.



INGREDIENTS

1 lemon
½ cup sugar
1 cup nonfat buttermilk
1/3 vegetable oil
1 large egg
1 teaspoon vanilla
2 cups flour
2 teaspoons baking powder
1 teaspoon baking soda
¼ teaspoon salt
1 ½ cups fresh sweet cherries,
pitted and chopped

PROCEDURE

Preheat oven to 400 degrees. Line a muffin tin with paper liners. Use a vegetable peeler to remove the zest from the lemon in long strips. Combine the zest and sugar in a food processor, pulse until the zest is very finely chopped into the sugar.

Add buttermilk, oil, egg and vanilla and pulse until well blended. Combine flour, baking powder, baking soda and salt in a large bowl. Add the buttermilk mixture and fold until almost blended. Gently fold in the cherries. Divide the batter among the muffin cups. Bake until golden brown; about 20-25 minutes.