

## KIWI



### Health Benefits

Kiwifruit can offer a great deal more than an exotic tropical flair in your fruit salad. These emerald delights contain numerous phytonutrients as well as well known vitamins and minerals that promote your health.

### Kiwi's Phytonutrients Protect DNA

In the world of phytonutrient research, kiwifruit has fascinated researchers for its ability to protect DNA in the nucleus of human cells from oxygen-related damage. Researchers are not yet certain which compounds in kiwi give it this protective antioxidant capacity, but they are sure that this healing property is not limited to those nutrients most commonly associated with kiwi fruit, including its vitamin C or beta-carotene content. Since kiwi contains a variety of flavonoids and carotenoids that have demonstrated

antioxidant activity, these phytonutrients in kiwi may be responsible for this DNA protection.

The protective properties of kiwi have been demonstrated in a study with 6- and 7-year-old children in northern and central Italy. The more kiwi or citrus fruit these children consumed, the less likely they were to have respiratory-related health problems including wheezing, shortness of breath, or night coughing. These same antioxidant protective properties may have been involved in providing protection for these children.

### Premier Antioxidant Protection

Kiwifruit emerged from our food ranking system as an excellent source of vitamin C. This nutrient is the primary water-soluble antioxidant in the body, neutralizing free radicals that can cause damage to cells and lead to problems such as inflammation and cancer. In fact, adequate intake of vitamin C has been shown to be helpful in reducing the severity of conditions like osteoarthritis, rheumatoid arthritis, and asthma, and for preventing conditions such as colon cancer, atherosclerosis, and diabetic heart disease. And since vitamin C is necessary for the healthy function of the immune system, it may be useful for preventing recurrent ear infections in people who suffer from them. Owing to the multitude of vitamin C's health benefits, it is not surprising that research has shown that consumption of vegetables and fruits high in this nutrient is associated with a reduced risk of death from all causes including heart disease, stroke and cancer.

Kiwifruit is also a good source of two of the most important fat-soluble antioxidants, vitamin E and vitamin A. Vitamin A is provided in the form of beta-carotene. This combination of both fat- and water-soluble antioxidants makes kiwi able to provide free radical protection on all fronts.

### Fiber for Blood Sugar Control Plus Cardiovascular and Colon Health

Our food ranking system also qualified kiwifruit as a very good source of dietary fiber. The fiber in kiwifruit has also been shown to be useful for a number of conditions. Researchers have found that diets that contain plenty of fiber can reduce high cholesterol levels, which may reduce the risk of heart disease and heart attack. Fiber is also good for binding and removing toxins from the colon, which is helpful for preventing colon cancer. In addition, fiber-rich foods, like kiwifruit, are good for keeping the blood sugar levels of diabetic patients under control. Kiwifruit also passed our food ranking test as a good source of the minerals potassium, magnesium, copper and phosphorous.

Eating vitamin C-rich fruit such as kiwi may confer a significant protective effect against respiratory symptoms associated with asthma such as wheezing.

A study published in the April 2004 issue of *Thorax* that followed 18,737 children aged 6-7 years living in Central and Northern Italy found that those eating the most citrus and kiwi fruit (5-7 servings per week) had 44% less incidence of wheezing compared to children eating the least (less than once a week). Shortness of breath was reduced by 32%, severe wheeze by 41%, night time cough by 27%, chronic cough by 25%, and runny nose by 28%. Children who had asthma when the study began appeared to benefit the most, and protective effects were evident even among children who ate fruit only once or twice a week. (May 6, 2004)

## **Protection against Macular Degeneration**

Your mother may have told you carrots would keep your eyes bright as a child, but as an adult, it looks like fruit is even more important for keeping your sight. Data reported in a study published in the June 2004 issue of the Archives of Ophthalmology indicates that eating 3 or more servings of fruit per day may lower your risk of age-related macular degeneration (ARMD), the primary cause of vision loss in older adults, by 36%, compared to persons who consume less than 1.5 servings of fruit daily.

In this study, which involved 77,562 women and 40,866 men, researchers evaluated the effect of study participants' consumption of fruits; vegetables; the antioxidant vitamins A, C, and E; and carotenoids on the development of early ARMD or neovascular ARM, a more severe form of the illness associated with vision loss. Food intake information was collected periodically for up to 18 years for women and 12 years for men. While, surprisingly, intakes of vegetables, antioxidant vitamins and carotenoids were not strongly related to incidence of either form of ARM, fruit intake was definitely protective against the severe form of this vision-destroying disease. Three servings of fruit may sound like a lot to eat each day, but kiwi fruit can help you reach this goal. Slice kiwi over your morning cereal, lunch time yogurt or green salads. For a more elegant meal, decorate any fish dish or fruit salad with kiwi slices. (July 10, 2004)

## **A Blood Thinning Alternative to Aspirin**

Enjoying just a couple of kiwi fruit each day can significantly lower your risk for blood clots and reduce the amount of fats (triglycerides) in your blood, making kiwi a delicious blood-thinning alternative to aspirin for protecting cardiovascular health. Aspirin (and other NSAIDs or non-steroidal anti-inflammatory drugs, such as Tylenol and Ibuprofen) can cause inflammation, ulcers and bleeding in the intestinal tract so severe that each year around 100,000 people are hospitalized and between 10,000 and 20,000 die from NSAID-related complications.

Unlike NSAIDs, the effects of regular kiwi consumption are all beneficial. Kiwi fruit is an excellent source of vitamin C, and polyphenols, and a good source of vitamin E, magnesium, potassium, and copper, all of which may function individually or in concert to protect the blood vessels and heart. In this study, human volunteers who ate 2 to 3 kiwi fruit per day for 28 days reduced their platelet aggregation response (potential for blood clot formation) by 18% compared to controls eating no kiwi. In addition, kiwi eaters' triglycerides (blood fats) dropped by 15% compared to controls. (October 21, 2004)

## **Description**

The kiwifruit is a little fruit holding great surprises. Inside of this small, oval-shaped fruit featuring brown fuzzy skin resides a brilliant, semi-translucent emerald green flesh speckled with a few concentrically arranged white veins and small black seeds. Its flesh is almost creamy in consistency with an invigorating taste reminiscent of a mixture of strawberries and bananas, yet with its own unique sweet flavor.

## **History**

The kiwifruit is a fruit with a very interesting history and whose recent rise in popularity reflects a combination of an appreciation for its taste, nutritional value, unique appearance and, surprisingly, its changing name.

Native to China, kiwifruits were originally known as Yang Tao. They were brought to New Zealand from China by missionaries in the early 20th century with the first commercial plantings occurring several decades later. In 1960, they were renamed Chinese Gooseberries.

In 1961, Chinese Gooseberries made their first appearance at a restaurant in the United States and were subsequently "discovered" by an American produce distributor who felt that the U.S. market would be very receptive to this uniquely exotic fruit. She initiated the import of these fruits into the United States in 1962, but to meet what was felt to be burgeoning demand, changed its name from Chinese Gooseberry to kiwifruit, in honor of the native bird of New Zealand, the kiwi, whose brown fuzzy coat resembled the skin of this unique fruit. Currently, Italy, New Zealand, Chile, France, Japan and the United States are among the leading commercial producers of kiwifruit.