



B E R R Y F A C T S

Strawberry

- California strawberries are grown all year by more than 500 growers on 34,556 acres.
- Size and color are based on variety and are not indications of flavor.
- Flavor is influenced by growing conditions such as weather and ripeness at the time of harvest .
- Strawberries do not ripen after being picked and should be kept refrigerated to preserve quality. However, serve at room temperature for best flavor experience.
- Nearly 1.6 billion pounds of strawberries were harvested in 2006 for fresh (75%) and processed (25%) use.
- Strawberry Lore and Legend:
 - In Medieval France, strawberries were regarded as a powerful aphrodisiac. Newlyweds traditionally were served a soup of thinned sour cream, strawberries, herbs and powdered sugar. Throughout Europe, stonemasons carved strawberry designs on altars and around the tops of pillars in churches and cathedrals, symbolizing perfection and righteousness. Strawberries were also served at important state occasions and festivals to ensure peace and prosperity.

Health Benefits

- Less than 50 calories (7grams of sugar).
- An excellent source of Vitamin C, providing 140% of the Daily Value for vitamin C.
- Antioxidant content is 3.584 mm/serving, making them one of the richest sources of antioxidants
- Nearly 3 grams of fiber, making it a good source of fiber. Soluble fiber helps lower blood cholesterol.
- Source for folate, which helps prevent birth defects and may promote heart health.
- Source for potassium, which helps to regulate blood pressure.



Nutrition Information

1 cup (147 gram)
serving)

Calories	47 cal
Protein	.98 g
Fat	.44g
CHO	11.29
Fiber	2.9g
Vitamin C	86.4mg
Folate	35 g
Potassium	225 mg

(USDA National Nutrient Database for Standard Reference, Release 19 (2006))

For further information visit
www.calstrawberry.org
or phone 831-724-1301



Antioxidants: Of over 1,000 common foods and beverages consumed in the US, strawberries ranked third after blackberries and walnuts on antioxidant capacity per serving. Data suggests the high antioxidant activity of strawberries may help reduce levels of oxidized LDL cholesterol, the most atherogenic cholesterol particle. Flavonoids in strawberries may also provide cardio protection by inhibiting platelet aggregation and thromboxane synthesis.

Halvorsen BL, Carlsen MH et al. Content of redox-active compounds (ie. antioxidants) in foods consumed in the United States. Am J Clin Nutr 2006;84:95-135.

Seeram et al. UCLA Center for Human Nutrition, University of California, Los Angeles

Heart Health: There are so many heart-healthy nutrients in California strawberries that the California Strawberry Commission has now become certified to use the American Heart Association's influential "heart-check" mark.

Blood Pressure: Substantial evidence suggests strawberries will help reduce blood pressure. In previous studies, researchers found strawberries had potent vasodilator properties, through, at least in part, endothelial nitric oxide synthase activation. Previously analyzed NHANES and CSFII data found a positive correlation between strawberry consumption and lower blood pressure.

Burton-Freeman et al. University of California at Davis, Department of Nutrition, Davis, CA

Cognitive Health: Several studies suggest the production of excess reactive oxygen species (ROS) is associated with a loss of neuronal functioning, and may be associated with declines in memory and cognitive function that occur with aging. Diets rich in antioxidants and anti-inflammatory compounds are thought to help reduce the deleterious effects of brain aging from ROS.

Researchers are further studying the mechanisms by which strawberry anthocyanins, the flavonoid pigments, are neuro-protective. Anthocyanins may help protect the neuronal cells from ROS, inhibiting inflammation and impacting neuronal cell signaling that are linked to declines in cognitive function. Researchers are assessing the mechanisms involved in the motor and cognitive benefits found with strawberries to gain more insight into exactly how strawberry bioactives influence the brain.

Joseph JA. The USDA Human Nutrition Research Center on Aging at Tufts University, Boston, MA.

Cancer: Strawberries are rich in many bioactive phytonutrients that are thought to help down-regulate cancer-related triggers including inflammation, cell proliferation and genetic damage. Results from preliminary research revealed freeze-dried strawberries inhibited tumor development by inhibiting the metabolism of nitrosamines to DNA-damaging species and by reducing the growth rate of pre-malignant cells

Carlton, P.S., Kresty, L.A., Siglin, J.C., Morse, M.A., Lu, J., Morgan, C., and Stoner, G.D. Inhibition of N-nitrosomethylbenzylamine-induced tumorigenesis in the rat esophagus by dietary freeze-dried strawberries. Carcinogenesis 2001;22: 441 – 446.

Chen Tong et al. The Ohio State University Comprehensive Cancer Center, Columbus, OH and Peking Union Medical College Hospital, Beijing, China.

For more information visit www.calstrawberry.com