

Blueberry Research Highlights

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Antioxidant

Blueberries scored better than 40 other fruits and vegetables tested in ORAC (oxygen radical absorbance capacity) activity, indicating they are very good antioxidants.

Wang et al., 1996. Total antioxidant capacity of fruits. J Agric Food Chem 44(3):701.705.

Cancer Protective

- Detoxification
- Deactivation
- Anti-initiation
- Anti-progression

Induce enzymes that protect against cancer and inhibit enzymes that lead to rapid tumor growth.

Bomser et al, 1996. In vitro anticancer activity of fruit extracts from Vaccinium species.

Planta Med 62(3):212.216. Smith et al., 2000. Bioactive properties of wild bluebeny fruits. J Food Sci 65(2):352.356.

Cardiovascular Protective

- Anti-lipoperoxidant
- Anti-platelet
- Anti-ischemic

1) Improve blood flow by reducing stickiness of blood platelets.

Kalt et al, 1999. Antioxidant, anti-adhesin and anti-platelet activity of Vaccinium species. (Abstr.) Annual Meeting of the Canadian Institute of Food Science and Technology. Kelowna, British Columbia.

2) Increase flexibility and relaxation of arteries, which may result in better blood flow and less plaque formation.

Andriambeloston et al., 1996. Natural dietary polyphenolic compounds cause endothelium-dependent vasorelaxation ili rat thoracic aorta. J Nutr 128(12):2324-2333.

Other

- Anti-inflammatory
- Anti-diabetic
- Anti-adherence

Brain Function

1) Reduce age-related mental decline. Improved balance, coordination and short-term memory in elderly rats. Study showed a reversal of dysfunction rather than just prevention of function loss.

Joseph et al., 1999. Reversals of age-related declines in neuronal signal transduction, cognitive, and motor behavioral deficits with blueberry, spinach, or strawberry dietary supplementation. J Neurosci 19(18):8114-8121.

2) Reduce age-related declines in cognitive function, common in Alzheimer disease.

Youdim et al., 2000. Short-term dietary supplementation of blueberry polyphenolics: Beneficial effects on aging brain performance and peripheral tissue function. Nutri Neurosci 3:383-397.

3) Protection against ischemic stroke. Reduced damage to brain after blockage removed.

Sweeney et al. J. Nutritional Neuroscience (in press)

Eyesight

Improve night vision, adaptation to light and relieve eyestrain.

Alfieri and Sole, 1966. Influence des anthocyanosides administres par voie oro-perlinguale sur l'adapto- electroretinogramme en lumiere rouge chez l'Homme. Comptes Rendus des Seances de la Societe de Biologie et de Ses Filiales 160(8):1590-1593.

Diabetes

May inhibit aldose reductase enzyme and reduce complications of neuropathy, retinopathy, heart disease.

Camire, M.E. -some clinical interventions underway

Bacterial Anti-adhesion Activity

Urinary Tract Health

Prevent bacteria that cause urinary tract infections from sticking to the bladder walls. This prevents the bacteria from multiplying and causing infection.

Howell et al., 1998. Inhibition of the adherence of P-fimbriated Escherichia coli to uroepithelial-cell surfaces by proanthocyanidin extracts from cranberries. New Engl J Med 339(15):1085-1086.

Antimicrobial

Reduce acute diarrhea.

Tyler, 1994. Herbs of Choice, Haworth Press, Binghamton, NY; pp 51-54.

May protect against infection and promote more rapid healing of topical wounds.

Cristoni and Magistretti, 1987. Antiulcer and healing activity of Vaccinium myrtillus anthocyanosides. Farmaco, 42(2):29-43.