Health benefits of anthocyanins

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Colorful anthocyanins are the predominant members of bio-flavonoids found in plants. These are typically ingested as a complex mixture of flavonoid components. Historically anthocyanins have been used in diverse health problems as remedial measure. However, only in the last two decades some specific, measurable pharmacological properties of isolated anthocyanin pigments have been conclusively verified by in vivo, in vitro or clinical research trials. Anthocyanins have been reported as having the capacity to lower blood pressure, improve visual acuity, reduce cancer cell proliferation, inhibit tumor formation, prevent diabetes, lower the risk of CVD modulate cognitive and motor function. These are also reported to have anti-inflammatory and anti-bacterial activity. Health promoting effects of anthocyanins are primarily attributable to their antioxidant properties but research suggests involvement of other mechanisms of action may also responsible. Moreover, health promoting effect of anthocyanins may be the result of synergistic interactions between these and other flavonoid components. There is paucity of information on the absorption, bio-distribution and metabolism of anthocyanins and interacting flavonoid components. It is not clear if the in vitro health protective roles of anthocyanins will be displayed in vivo. Mechanism of action of anthocyanins also needs to be established. All these remain as so called “Anthocyanin enigma” and need to be addressed in the light of systematic research following in vitro anthocyanin production systems which reliably and predictably synthesized anthocyanins in a controlled environment providing a unique and useful model for in-depth research on anthocyanins to establish its specific role in disease prevention.

Biography

Suchanda Guha is a Research Scholar at All India Institute of Hygiene and Public Health, India. Her field of specialization is Food, Nutrition and Health. debnathchaudhuri@rediffmail.com

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