

“The Latest Finds on Tea & Health”

Researchers have unlocked more of tea's secrets, but is the full story yet to be revealed? Mr. Conrad Astill of Unilever's shared some of the latest findings at the last Tea & Coffee World Cup Symposium in Rome.

Conrad Astill is an expert, “larger-than-life” scientist with a keen sense of humor and a solid scientific pedigree. He joined the food and beverage industry as a research chemist in 1978 and joined Unilever in 1990. A graduate of University of Salford, UK, he is entitled to the letters BA, MSc, MRSC and CChem after his name.

Astill opened his presentation by mentioning how the legend of the world's first tea drinker, originated. The refreshing qualities of tea, have been noted for over 4,000 years. As a subjective opinion among tea drinkers, the reviving qualities of tea are well known around the world as millions daily experience them.

What is it in tea that gives it its “kick”? Is there any proof that tea is actually beneficial to health? What can we discover about the molecular and chemical processes involved in the digestion and utilization of tea by human bodies?

Ongoing research into the qualities and possible benefits of tea are of tremendous importance to the industry as it struggle to promote tea over other beverage choices and to establish the authenticity of the various health claims embraced in tea. One thing is for sure though: regardless of how you drink your tea, green, black, with milk, lemon or even from a can, it is certainly better for you than a fizzy soft drink.

Many specific claims have been made for tea's health benefits over the years. Some of the more common ones are; Tea is a good source of amino acids. Among several amino acids found in tea, theanine (5-N-ethylglutamine) is unique. It accounts for over 50% of the free amino acids in tea leaf and 1-2% of the total dry weight in both green and black teas. Japanese researches have discovered that this compound has a relaxing effect on humans, based on increased alpha-wave activity. Furthermore theanine in tea assists our natural immune responses to viral and fungal infections.

Tea also may be a good source of minerals. Fluoride from the soil is accumulated naturally in the tea plant, and fluoride has been shown to have a role in helping bones and teeth grow and to prevent diseases such as dental cavities. However, too much fluoride has been associated with enhanced rates of bone cancer and skeletal and dental fluorosis. But never fear....., even if you drink four to five cups of tea made with fluoridated water everyday, you will still be ingesting amounts of fluoride well below the level of concern.

Tea does count towards your fluid intake because it is a diuretic. Tea is a fine drink in an environment where dehydration is of concern. As Astill points out, this information is based on the supposition that you will lose more fluid than you take in, whereas diuresis occurs only after a caffeine dose of over 250mg. A cup of tea contains somewhere around 50mg, therefore drinking a cup of black tea “can make a significant contribution to the target intake of 35ml of fluid/kg of bodyweight,” according to Astill.

Tea may be good for the heart. Studies have shown that endothelial function has been shown to improve convincingly by moderate tea consumption and that tea can help lower cholesterol.

Tea also inhibits iron absorption. Tea flavonoids are known to partially inhibit absorption of iron from plant foods, but not from animal sources. However, the amount of iron leached from the system is not enough to constitute an iron deficiency threat even in a vegetarian, and if tea is not consumed until an hour after eating, the inhibitory effect is greatly reduced.

Tea is rich in antioxidants. Antioxidants are compounds that help clean harmful compounds from the blood. Tea contains several different types of antioxidants in the polyphenol family, including catechins, flavonoids, tannins and theaflavins. Flavonoids comprise an important sub-group of the polyphenols and green tea leaves contain high levels of flavonoid compounds, among them catechins (flavinols). A related flavonoid, flavonis, is found in both green and black tea leaves. These are similar antioxidants that are found in fruit and vegetables, but one or two cups of tea provides a similar “radical scavenging environment” as five portions of fruit or vegetables.

Green tea is often regarded as being more beneficial in this regard, but this is likely because more research has been conducted on green tea. In fact, both green and black tea score highly in antioxidants.



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