

The Relationship Between Tea Consumption and Cancer

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Dear Editor,

Tea is the most commonly consumed beverage in the world after water. Black tea accounts for about 75% of the world's tea consumption, while green tea is the most popular tea in Japan and China (1). Tea contains many of bioactive compounds, including amino acids, caffeine, lignins, proteins, xanthines and flavonoids (2). Tea consumption reduces the risk of heart disease and stroke (3, 4). Tea compounds by many mechanisms such as reducing free radical and DNA damage, inhibiting uncontrolled cell growth, and boosting the immune system help stave off the development of cancer cells and provide chemo-protection for our body (5). Although many of the potential beneficial effects of tea have been attributed to the strong antioxidant activity of tea polyphenols, the precise mechanism by which tea might help prevent cancer has not been established (6).

The results of one study showed that green tea was effective in the initial stages of colon carcinogenesis (7). Another study showed that drinking iced black tea and citrus peel was associated 42% reduction in the risk of skin cancer (8). Tea compounds can influence genetic alteration to reduce the growth and survival of human lung cancer cells (9). The protective effect of tea consumption on ovarian (10), breast (11) and prostate cancer (12) has been shown in some studies. In contrast, the results of another study showed that drinking tea at a temperature of 70 -79°C and above is related to highly elevated risk of esophageal cancer (13). Conclusions from the results of these studies should be cautious because some variables such as differences in tea preparation and consumption, the types of tea studied (green or black), the ways of tea production, genetic diversity, the concomitant use of tobacco and alcohol, and lifestyle factors such as physical activity may affect the risk of developing cancer. There-

fore more evidence is needed before definitive conclusions can be drawn.

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