

Can Diet Reduces Oral Cancer Risk?

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Diet and health are closely linked as health can be severely threatened by malnutrition. The deficiency effect that will be faced by most people is with a higher risk of getting a cancer disease. Therefore, numerous diet components may be important in preventing such disease as the bioactive diet components can interfere with the genes and their expression in altering phenotypes. On the other hand, dietary responses that influenced by genes' regulations may affect absorption, metabolism, transport of the bioactive diet components.

In minimizing the risk of cancer, dietary components such as fibre, antioxidants, macronutrients and micronutrients are seemed to be the most significant in cells growth inhibition [1]. The intake of fruits, vegetables, and cereals, which are the main source of antioxidants and fibres, should be sufficiently consumed in the daily diet as it appears to be the strongest protective factor against cancerous growth [2]. Antioxidants can inhibit or decrease the development of components that may trigger cancer induced by frying or broiling protein and heterocyclic amine-generating foods [3]. Important carcinogens like tobacco-specific nitrosamine and polycyclic aromatic hydrocarbons undergo specific activation and detoxification processes that are controlled by antioxidants such as quercetin in onions and genistein in soybeans [4]. In addition, beverage tea can also serve as an antioxidant and inhibit the carcinogenic effects of cigarettes, tobacco, oesophagus, or lungs. The antioxidants protect cells from being harmed by free radicals by neutralizing it [5]. Free radicals are chemically reactive due to their incomplete electron shells and exposure to various environmental factors such as cigarette smoke may lead to free radical formation. The most common source of free radicals in human beings is oxygen. Damage to DNA will occur when radicalized oxygen molecules try to steal the electrons from other molecules. Therefore, antioxidants will neutralize the electrical charge and the free radical is stopped from taking electrons from other molecules [6]. Thus, the formation of cancer cells can be delayed or inhibited. Collectively referred these evidence that proved some dietary effects in reducing the oral cancer risk.

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