



The Importance of Catechins

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Description

Catechins are a type of phenolic compound found in berries, tea, and legumes, all of which are foods that contain antioxidants due to this polyphenol. Catechin is a flavan-3-ol, part of the chemical family of flavonoids, a naturally occurring phenol, an antioxidant, and a second metabolite in certain plants. Tea catechin (a naturally occurring polyphenol in tea leaves) undergoes various metabolic changes when taken orally, while a large percentage of it is excreted on the faces. Previous epidemiological studies have suggested that tea may have a protective effect on various human cancers, including both colon and rectal cancer. In addition, the antimicrobial properties of catechins for tea leave play a different role within the digestive tract.

In the human gut, catechins inhibit the activity of the amylase enzyme, and a certain amount of catechin enters the main artery of the portal. When catechins are known to have antibodies, they have no effect on lactic acid bacteria. Catechins were found to inhibit DNA methylation by suppressing DNMTs (DNA methyltransferases), as well as increasing SAH levels (intermediate levels in the methionine cycle), leading to significant inhibition of tumorigenesis (tumour formation).

It is the secondary plant metabolite. The main sources of catechins in Europe and the United States are tea and pomegranate fruit. Among foods Catechins are diverse, they also from green tea, peaches and vinegar. Catechins are found in barley grains where it is a great phenolic compound that causes colour discoloration of the dough. The taste associated with monomeric (+)-catechin or (-)-epicatechin is described as slightly astringent, but not bitter. Catechin oxygenase, the main enzyme responsible for catechin degradation, is present in fungi and bacteria. From tea leaves Important ingredients, includes catechins

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have representative physiological activities and intensive anti-oxidant. They are members of a group of polyphenol compounds found in many medicinal plants.

Sources of Catechin

The main sources of catechin are *Camellia sinensis* (*C. sinensis*) and *C. Catechin* is present in many food products, plants, fruits (such as apples, blueberries, gooseberries, grape seeds, kiwi, and strawberries), green tea, red wine, beer, cacao alcohol, chocolate, cocoa, etc. Red tea and wine are some of the most popular beverages in the world.

Benefits

Many benefits of catechins include reducing skin damage or preventing. Catechins are important ingredients from tea leaves and have intensive anti-oxidant and representative physiological activities. Catechisms provide a few health benefits by releasing free radicals and reducing the degradation of the outer matrix caused by Ultra Violet (UV) radiation and pollution. Catechins also directly affect the skin by opening up collagen binding and inhibiting the production of matrix metalloproteinase enzymes. Due to the hydroxyl in the gallate group, EGCG and ECG are free scavengers compared to many other common anti-oxidants, such as ascorbic acid, tocopherol, and trolox.

In natural antioxidants catechins are also included because they help to prevent cell damage and provide other benefits. Catechins help to reduce the formation of free radicals in the body, molecules from damage and it also protects cells. These free radicals play a vital role in many types of diseases and aging.

Side effects

These side effects can range from mild to severe and include headache, tremors, trouble sleeping, vomiting, diarrhoea, irritability, irregular heartbeat, heartburn, dizziness, ringing in the ears convulsions, and confusion.