

Ellagic Acid in Red Raspberries Said to Prevent Cancer

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The most promising benefit that red raspberries hold for consumers is their substantial quantity of ellagic acid. Ellagic acid is a phenolic compound known for its potent anticarcinogenic and anti-mutagenic properties. Clinical tests conducted at the Hollings Cancer Institute at the Medical University of South Carolina and dozens of other prestigious research centers show that this naturally occurring plant phenol may be the most effective way to prevent cancer, to inhibit the growth of cancer cells, and to arrest the growth of cancer in people with a genetic predisposition for the disease. A brief review of the medical literature indicates the following:

- * Cervical cancer cells--human papilloma virus exposed to ellagic acid experience normal cell death (Nixon, 1999).
- * Ellagic acid is a potent inhibitor of skin cancer activity (Del Tito, 1983).
- * Ellagic acid inhibits activation by binding to deoxyribonucleic acid (DNA) and by reducing the formation of certain carcinogens (Barch, 1996).
- * Ellagic acid can inhibit chemically induced cancer in the lung, liver, skin, and esophagus (Stoner, 1995).

The Meeker red raspberry is the best source of ellagic acid, followed by Chilliwack and Willamette varieties. The Meeker variety is specific to the Pacific Northwest--grown primarily for commercial use in Washington State. The Chilliwack and Willamette raspberries contain lesser variations of ellagic acid; both varieties are grown in the Pacific Northwest.

How does ellagic acid work?

Ellagic acid acts as a scavenger to "bind" cancer-causing chemicals, making them inactive. It inhibits the ability of other chemicals to cause mutations in bacteria. In addition, it prevents binding of carcinogens to DNA and reduces the incidence of cancer in cultured human cells exposed to carcinogens.

Red Raspberries in Food

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Red raspberries are seeing increased use by consumers and manufacturers because of their high concentrations of ellagic acid. As consumers increase their intake of nutritional beverages and cereal-based bars, red raspberries are being used to add sweetness, color, flavor, and beneficial acids.

Red raspberries have made their way into a wide variety of functional foods because of the nutritional, functional, and technical advantages they provide to manufacturers. Red raspberries are sold fresh, in frozen blocks, in frozen purees, and in various levels of concentrations of juices and purees. The many forms in which red raspberries can be used offer manufacturers a great deal of flexibility in formulating new products. Given today's leading market trends for health, nutrition, convenience, and natural ingredients, red raspberries match market demands on several levels.

Nutrition

Raspberries provide the most dietary fiber with the fewest calories: only 7.69 calories per gram of dietary fiber. Increased intake of dietary fiber is thought to reduce the risk of colon cancer and heart disease.