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Color Your Plate Red

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Tomatoes protect against prostate cancer and heart disease.

Heating enhances lycopene absorption.

Color Your Plate Red

BY WINSTON J. CRAIG

The tomato is one of the most commonly grown garden vegetables. It is rich in fiber, low in calories and sodium, and contain no fat. It is a valuable component of many recipes used around the world.

Tomatoes originated with the Aztecs in Mexico. The first domesticated tomato was a little yellow fruit called *xitomatl*, meaning the plump thing with a navel. They were prepared with peppers, corn and salt, probably forming the first salsa. Today, there are thousands of cultivars. Popular fruit types include the “beefsteak” and the “cherry” tomatoes. Selection depends upon whether it will be used in tomato sauce, paste, juice or soup, or just eaten fresh.

While tomatoes are 95 percent water, they contain an ample supply of vitamin C, B6, iron, potassium, and a variety of carotenoids and flavonoids that possess antioxidant activity. The major carotenoid in tomatoes is lycopene, an intense red pigment thought to be the powerhouse behind the health-promoting properties of the tomato.

The lycopene from cooked and processed tomatoes is more readily available than from fresh tomatoes, since heat liberates the lycopene. Cooking tomatoes with oil is also an advantage since lycopene and other carotenoids are fat soluble, and their availability is substantially enhanced by the use of some oil.

The carotenoids and flavonoids in tomatoes work synergistically to provide health protective efforts. A tomato extract was recently shown to have five times the ability to inhibit LDL cholesterol oxidation compared with pure lycopene. So, taking lycopene supplements is not the answer to good health.

In a cohort study of 40,000 women it was observed that

higher consumption of tomato-based products was associated with cardiovascular protection. In the large multicenter EURAMIC study involving ten European countries, scientists found that carotenoids, and especially lycopene, protected people against a heart attack.

Lycopene is known to decrease LDL oxidation, an important step in cardiovascular disease. Clinical trials reveal that tomato products also significantly inhibit platelet clumping. The compounds responsible for this property are heat stable and are concentrated in the yellow fluid around the seeds. Some studies have shown that a high tomato diet can reduce LDL cholesterol levels and reduce blood pressure levels in individuals with hypertension.

There is a growing body of research suggesting that inflammation may be a significant factor in the development of heart disease and cancer. A high tomato diet lowers the level of C-reactive protein and other recognized biomarkers of inflammation. Data from around the world provides substantial evidence that eating tomato products and other foods containing lycopene (watermelon, pink grapefruit, papaya) protects against prostate cancer. Data from the Physicians’ Health Study suggests that eating lycopene from tomato products may reduce the occurrence and progression of prostate cancer. Research also suggests tomato products may protect against colorectal cancer and possibly pancreatic cancer.

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