

## **PART V NUTRITION AND RESEARCH**

### **Basic Tomato Nutrition**

A medium tomato has only 25 calories, is high in vitamin C, a good source of vitamin A, low in sodium and fat, and cholesterol-free. Low fat diets rich in fruits and vegetables may reduce the risk of some types of cancer, a disease associated with many factors. Furthermore, vitamin A promotes good vision and helps to build and maintain healthy teeth and skin. Vitamin C plays an important role in maintaining body tissues and healing wounds and is also an antioxidant. Antioxidants help neutralize free radicals which are unstable molecules linked to the development of a number of diseases including cancer, cardiovascular disease and other age-related conditions such as Alzheimer's disease. In addition, Florida tomatoes contain lycopene, an antioxidant that gives tomatoes their rich, red color.

### **Tomatoes and Weight-Loss Diets**

Fresh tomatoes add great color, flavor, variety and interest to menus making it easy to fit well into any restrictive or weight-loss diet. At only 5 grams of carbohydrate for one medium sized tomato, fresh tomatoes have a place in the South Beach Diet, Atkins Diet and other low-carbohydrate diets. Whereas some processed tomato products contain added sugars, such as the corn syrup often added to jarred marinara sauce, fresh tomatoes are a healthier ingredient choice, especially for diabetics. Tomatoes are also a healthier choice for those following a low fat or low cholesterol diet.

### **Tomatoes, Lycopene and Health**

Lycopene entered the spotlight in 1995 with published studies from Harvard University identifying a positive association between intake of tomatoes and tomato-based foods and diminished risk of prostate cancer in a group of 48,000 health professionals followed over a six-year period. In a similar observational study in Italy, where tomatoes are a mainstay of the diet, it was found that tomatoes had been consumed in significantly lower quantities by a group of subjects suffering from colorectal and other digestive tract cancers than by the healthy control group.

Many more studies have been done examining the roles of tomatoes and lycopene in reducing the threat of other types of cancer (prostate, lungs, stomach) and chronic diseases affecting the lungs, heart and eyes. Early studies often focused on lycopene, a prominent antioxidant abundant in tomatoes. Lycopene may not be the whole story, though, according to Dr. Edward Giovannucci who concluded that "...the intake of tomatoes and tomato products lowers the risk of prostate cancer, especially the more aggressive forms. This benefit may be related to lycopene, but potentially beneficial substances instead of, or combined with lycopene cannot be excluded." Another study supports the idea that tomatoes contain compounds that work independently of—or in concert with—lycopene. Researchers found that rats fed a powder made from whole tomatoes had significantly less prostate tumor growth than those given a lycopene supplement.

### **Unlocking Lycopene**

While researchers continue to explore lycopene's role in a healthy diet, there is general agreement that benefits are amplified by the interaction of a supporting cast of antioxidants and nutrients found in whole tomatoes. In addition to the importance of consuming lycopene through food, the effects can be enhanced further by heating tomatoes to make lycopene more available to the body. Consuming fresh tomatoes with fat lipids also improve the body's ability to absorb the nutrients. Examples include roasting tomatoes with oil, or including some fat in a salad, with avocados, cheese or dressing.