

# Where do I find lycopene?



Lycopene is not produced in the body, so you can only obtain its benefits by eating foods rich in lycopene. Tomato products, such as spaghetti sauce, tomato juice, ketchup and pizza sauce are, by far, the major sources of lycopene in the typical American diet. In fact, these foods provide over 80 percent of the lycopene consumed in the U.S. Other fruits and vegetables such as watermelon and pink grapefruit also provide lycopene but in smaller amounts.

Lycopene is better absorbed by the body when it is consumed in processed tomato products, rather than fresh tomatoes. The reason for this remains unclear. In one study lycopene was absorbed 2.5 times better from tomato paste than from fresh tomatoes. However, cooking fresh tomatoes with a little oil greatly increases lycopene absorption.

| <b>FOOD SOURCES OF LYCOPENE</b>         |                               |
|---|-------------------------------|
| <b>Food Item</b>                        | <b>Lycopene in milligrams</b> |
| <b>Tomato Soup, 1 cup</b>               | <b>24.8 mg</b>                |
| <b>Tomato or Spaghetti Sauce, ½ cup</b> | <b>19.4 mg</b>                |
| <b>Canned Tomatoes, ½ cup</b>           | <b>11.8 mg</b>                |
| <b>Watermelon, 1 cup</b>                | <b>7.8 mg</b>                 |
| <b>Ketchup, 2 tablespoons</b>           | <b>5.1 mg</b>                 |
| <b>Fresh Tomato, 1 medium</b>           | <b>3.7 mg</b>                 |
| <b>Pink or Red Grapefruit, ½ cup</b>    | <b>1.8 mg</b>                 |

**Source: USDA/NCC Carotenoid Database for U.S. Foods -- 1998 & Tomato Research Council**

## **Convenient ways to increase your consumption of lycopene:**

Now that you know about the potential health benefits from eating foods rich in lycopene, try some of the following tips to add it to your diet:

- For a quick and simple dinner choice, open a jar of tomato-based sauce and pour over your favorite pasta. Top with steamed vegetables or grated cheese.
- When making your own spaghetti sauce, include some tomato paste and a small amount of olive oil.
- Enjoy tomato or vegetable juice as a refreshing and healthful snack.
- When choosing soups...think tomato!
- Wake up your taste buds with fresh pink grapefruit along with your favorite breakfast.



Lycopene, a naturally occurring chemical found mostly in tomatoes, but also in watermelons, pink grapefruits, guava, and papaya, has long been touted as one of the most "prostate healthy" compounds available. Why?

Among other things, lycopene acts as a powerful antioxidant and helps protect the body against cancer. During normal cellular processes, extra oxygen atoms, or free radicals, are often produced and are used by the body to destroy foreign invaders like bacteria.

However, if these free radicals are allowed to roam unchecked, they can cause cellular DNA to break down, mutating the cells and transforming normal cells into cancerous cells. Antioxidants such as lycopene mop up free radicals and thereby might contribute to the protection against cancer.

Research over the years has demonstrated that the benefits offered by lycopene are best realized when derived from tomato-based sources, both because of the way it interacts with other nutrients in the fruit, and because of the way it is absorbed by the body when ingested from food-based sources. The combination of these factors might therefore make tomato-based foods more potent than lycopene supplementation in the fight against prostate cancer cell growth.

In fact, studies have shown that not only are tomatoes better than lycopene alone, but that processed and cooked tomatoes are even better. After studying the dietary habits of the men enrolled in one long-term study, researchers found that those who consumed at least two servings of tomato sauce a week over the course of the 12-year study demonstrated a 28% lower risk of developing organ-confined prostate cancer, a 35% lower risk of developing locally advanced disease, and a 36% lower risk of developing metastatic disease. At the same time, however, there was no association between prostate cancer risk and the amount of fruits and vegetables overall—including tomatoes—that the study participants consumed.