

# Lycopene

## Overview

- Lycopene belongs to a class of compounds called the **carotenoids**, which are yellow, orange, and red pigments made by plants.
- The function of carotenoids in plants is to absorb light in photosynthesis, protecting the plant against photosensitization.
- The 5 principle carotenoids found in human plasma from ingesting plants, are:  $\alpha$  and  $\beta$ -carotene,  $\beta$ -cryptoxanthin, lutein, and lycopene.
- American lycopene intake averages at about **3.1-3.7 mg/d**. In contrast, British intake averages 1.1 mg/d and that for Finns is even lower at 0.7 mg/d.

Lycopene is what gives tomatoes, pink grapefruit, watermelon, and guava their red color. Tomato and tomato products are the *single best source* of lycopene.

## Where is Lycopene found?

Some examples of tomato products high in lycopene are: tomato paste, tomato puree, tomato soup, tomato juice, and marinara sauce. Lycopene can also be found in watermelon, pink grapefruit, baked beans and sweet red pepper.

**80% of the lycopene in the US diet comes from tomatoes and tomato products like tomato sauce, tomato paste, and ketchup.**



## Proposed Health Effects

Lycopene may impact:

- **Prostate Cancer**
- **Digestive Tract Cancers**
- **Bladder, Cervical, Breast, and Lung Cancers**
- **Cardiovascular Disease**
- **Also, functional capacity in the elderly and in immune function.**

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