

Editorial Note Open Access

Lycopene: Benefit of taking Lycopene

Haleagrahara S. Nagaraja*

James Cook University, Faculty of Medicine, Health and Molecular Sciences, Townsville, QLD, Australia

The Lycopene is a plant nutrient with antioxidant properties. It's the pigment that gives red and pink fruits, such as tomatoes, watermelons and pink grapefruit, their characteristic colour. Lycopene has been linked to health benefits ranging from heart health to protection against sunburns and certain types of cancers.

What Is Lycopene?

Lycopene is a bright red carotenoid hydrocarbon found in tomatoes and other red fruits and vegetables, such as red carrots, watermelons, grapefruits, and papayas. It is not present in strawberries or cherries. Although lycopene is chemically a carotene, it has no vitamin A activity.

In plants, Algae and other photosynthetic organisms, lycopene is an intermediate in the biosynthesis of many carotenoids including beta-carotene, which is responsible for yellow, orange or red pigmentation, photosynthesis and photoprotection. Lycopene is a tetraterpene like all carotenoids and is insoluble in water.

Eleven conjugated double bonds give lycopene its deep red color. Owing to the strong color, lycopene is useful as a food coloring (registered as E160d) and is approved for use in the USA, Australia and New Zealand (registered as 160d) and the European Union.

What is lycopene used for?

One of the biggest benefits of lycopene is that it is an antioxidant and protects the body of damage from free radical stress, which can hurt DNA and other cell structures.

The antioxidant properties help balance free radical activity in the body and in doing so, may offer protection against certain diseases, keep bones strong and healthy, and help eyesight by helping delay or prevent cataracts, macular degeneration, and other age-related eye disorders.

Strong Antioxidant Properties

Antioxidants protect your body from damage caused by compounds known as free radicals.

When free radical levels outnumber antioxidant levels, they can create oxidative stress in your body. This stress is linked to certain chronic diseases, such as cancer, diabetes, heart disease and Alzheimer's.

Research shows that lycopene's antioxidant properties can help keep free radical levels in balance, protecting your body against some of these conditions.

In addition, test-tube and animal studies show that lycopene may protect your body against damage caused by pesticides, herbicides, monosodium glutamate (MSG) and certain types of fungi.

Heart Health

Lycopene may have the ability to reduce LDL (bad) cholesterol while increasing HDL (good) cholesterol levels.

There may also be a connection to those who have higher amounts of lycopene in their tissues and a lower risk of heart attack, blocked or clogged arteries, lower blood pressure, and other cardiovascular diseases.

Dosage

Lycopene that comes from food sources has no set recommended intake amount. The average person consumes approximately 2 milligrams (mg) per day in their diet. This isn't nearly enough to reap the antioxidant benefits, as research found those with high blood pressure consuming 12 mg per day of lycopene experienced lower blood pressure levels.

However, always be sure to consult with your doctor before adding a regular supplement to your diet.

Since there is not much research on lycopene supplements, its best to talk to your doctor before taking lycopene outside of your diet. If you're interested in it for health reasons, your doctor will be able to look at your entire health history to see if the supplements are the right fit for you as well as be aware of any potential interactions.

While many benefits associated with lycopene still need more research behind them, the health benefits of eating fruits and vegetables to prevent disease and boost your immune system are proven. Making sure you have a diet rich in these foods including high-lycopene fruits and vegetables can only help your health overall.