

Lycopene

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While the health benefits of the Mediterranean diet (rich in fish, salads, tomato sauce, pasta, vegetables and olive oil) have long been recognised, one of the key factors for its success has only recently come to light.

For years, the positive effects of the Mediterranean diet were attributed to olive oil (helps lower harmful LDL cholesterol) and fish (a source of omega-3 fatty acids). Recently, however, it has been increasingly acknowledged that *lycopene* may also play an important role.

What is lycopene?

Lycopene (a natural organic compound that gives tomatoes their red colour) is an antioxidant which has gained increased attention for its health-giving properties. Lycopene is one of the most powerful antioxidants found in foods. Antioxidants protect and repair cells and tissues against the damaging effects of free radicals which cause cell and tissue damage.



Why should we eat it?

Considerable research has been conducted into lycopene's antioxidant content and health benefits. Strong scientific evidence suggests that lycopene plays a beneficial role in the reduction of prostate cancer risk. A study by the Harvard School of Public Health found that people who eat seven to ten servings of lycopene-rich foods each week may have a lower risk of developing prostate cancer¹.

How does lycopene work?

Free radicals are reactive molecules which damage cell membranes and attack DNA causing damage and disease. Antioxidants such as lycopene protect cells and tissues from the damaging effects of free radicals and help repair them.

What foods contain lycopene?

While the human body does not produce lycopene, it is readily available in a variety of foods. Lycopene occurs naturally in many red-coloured foods such as tomatoes, watermelon and pink grapefruit. Cooking and processing tomatoes stimulates and concentrates their lycopene content, making tomato pastes and sauces a rich source.

Lycopene is fat-soluble, therefore, absorption can be enhanced by adding a little fat (such as olive oil) to meals when cooking with tomato products.

How much should we eat?

While there is currently no recommended daily intake for lycopene, suggestions range from about 5 to 35mg². This amount can be provided by one or two servings of tomato

products each day. The Harvard School of Public Health research suggests that seven to ten servings a week of lycopene-rich foods may provide the most beneficial effect¹.

Can I take a lycopene supplement?

It is preferable to obtain your nutrients from foods rather than supplements where possible. Lycopene is best eaten in conjunction with other fruits and vegetables in order to provide a range of nutrients.

Eating more fruit and vegetables, including tomato-based products, is a simple way people can improve their health and help prevent the onset of certain diseases.

Tips to eat more lycopene

- Add an extra dollop of tomato paste to dishes such as spaghetti bolognese, soups and casseroles.
- When making pizza, spread a lavish amount of tomato paste from edge to edge!
- Spice up your party with Virgin Bloody Marys! In a blender mix tomato juice, a tub of tomato paste, Tabasco sauce and celery salt.
- For a nutritious salad dressing mix tomato paste, lemon juice, vinegar, olive oil, salt and pepper.
- Transform toast by spreading it with tomato paste instead of butter. Top with avocado, cheese and a drizzle of olive oil.

Lycopene comparison

	Lycopene (mg/100g)	Serving size	Lycopene (mg/serve)
Tomato paste	42.2	2 tbsp	13.8
Spaghetti sauce	21.9	1/2 cup	28.1
Chilli sauce	19.5	2 tbsp	6.7
Tomato sauce	14.1	1/4 cup	8.9
Tomato juice	9.5	1 cup	25.0
Raw tomato	3.0	1 medium	3.7

References

- 1 Giovannucci, E.; et, al. 1995: Intake of carotenoids and retinol in relation to risk of prostate cancer. *Journal of the National Cancer Institute* 87: 1767-1776.
- 2 Rao, L. G., E. & Rao, A. V 2003, 'Lycopene: its role in human health and disease – A review.' *AGRO Food* July/August.