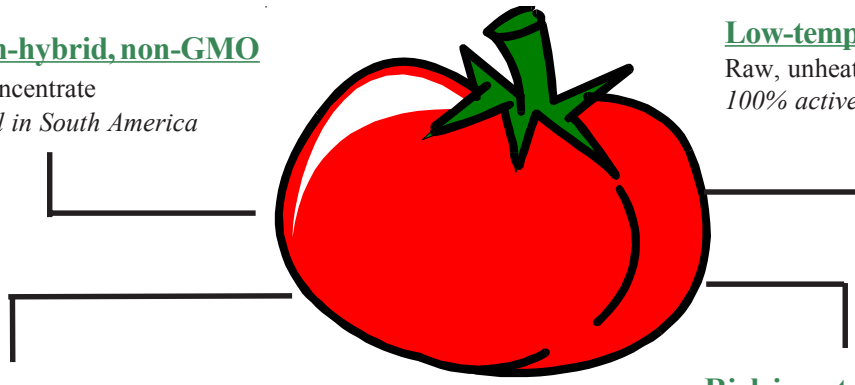
# Tomato Straight From Mother Nature


## Quantum Tomato Concentrate

*The Quantum Leap in Perfect Tomato Powder*

**100% pure, non-hybrid, non-GMO**
Organic tomato concentrate
*Grown on rich soil in South America*

**Low-temperature, air-dried**
Raw, unheated, untreated concentrate
*100% active enzymes and nutrients*



**Rich in lycopene**
A powerful, immune-boosting antioxidant
*A whopping 270 mg. lycopene/tablespoon*

**Rich in potassium**
An important mineral for kidney, heart, blood, muscle and nerve support
*A heaping 450 mg. potassium/tablespoon*

### *Great For The Whole Family*

- Makes instant, delicious organic tomato juice, tomato soup or tomato sauce
- A great afternoon "pick-me-up" drink: *Just add powder to hot water and stir*
- Great to take when traveling; *no refrigeration needed*

**Secrets Inside the Tomato**

The simple tomato has gained a stellar reputation due to the discovery of a carotenoid called lycopene, a health-promoting phytochemical which gives the tomato its red color. In the body, lycopene acts like a powerful antioxidant, helping to scavenge and neutralize harmful free radicals which can accelerate aging and cause disease. For smokers or those exposed to second-hand smoke, lycopene can offer great protection against free radical damage caused by inhaling cigarette smoke.

Lycopene also assists in the repair of damaged body cells as well as helping to inhibit DNA oxidation, which if left unchecked can lead to certain forms of cancer. Many studies have supported the role of the tomato (with its rich lycopene content) in the prevention and nutritional support of prostate cancer, lung cancer and other types of cancer as well as heart disease and osteoporosis.

**Finding the Best Lycopene**

Lycopene is a normal constituent of human blood and human tissues, where it is found in greater concentrations than any other carotenoid, including beta carotene. However, the body cannot synthesize lycopene so it must be obtained through diet or by supplementation. In general, the foods with the greatest lycopene content are tomatoes and tomato-based foods, such as tomato juice, soups, sauces and paste.

However, be very careful of the source of tomatoes and tomato-based foods you use. According to the FDA's long-range food study in the U.S., commercially grown tomatoes are saturated with unbelievably high amounts of toxic pollutants. Their study found store-bought tomatoes contain, on average, a whopping *50 different pesticide/toxic chemical residues* (per 16 samples).

In contrast, our tomato powder from South America contains

absolutely no pesticide or chemical residues. Due to the pristine growing environment in South America (with rich soil and pure water), this powder contains an extremely high level of naturally occurring lycopene (*an amazing 270 mg./tbsp.*). This gives the consumer not only one of the highest lycopene concentrates, but also the full gamut of the tomato's other associated nutrients which help fully metabolize the lycopene. For best effect, we do not recommend taking lycopene as an isolated nutrient, but as part of a whole tomato concentrate.

## Lung Cancer and Lycopene

The body is able use antioxidants such as lycopene to quench free radicals, otherwise a runaway free radical oxidative cascade would eventually destroy the body. If we are under high physical or emotional stress, we may need extra amounts of antioxidants to handle the increased free radicals.

When a cell's DNA is damaged by oxidation due to free radicals, special enzymes repair the damage. Dr. Bruce Ames, a biochemist and DNA researcher, estimates the number of oxidative hits to human DNA per cell per day is about 10,000. Although our DNA repair enzymes are designed to clean up these lesions, they become less efficient over time and thus, unrepaired cell mutations begin to accumulate.

Dr. Ames finds smoking is a major oxidative stress as well as a source of increased mutagens, contributing to 33% of all cancers, 25% of heart disease and about 400,000 premature deaths per year in the U.S.

Researchers at the Harvard School of Public Health found that both smokers and nonsmokers who ate diets high in tomatoes and carrots were 20 to 25% less likely to get lung cancer. Although the toxic pollutants in cigarette smoke can alter most carotenoids, they do not appear to affect lycopene. In a Columbia University study with lung cancer patients, the researchers found that those with the lowest blood levels of lycopene had *triple the risk of cancer* than those with high levels.

In his book, *The Superantioxidants*, Dr. James Balch sums up his studies that show lycopene's anti-cancer properties: lycopene interferes with cancer cell communications so both cell growth and cell movement were delayed in lung, breast and endometrial cancer cells.

## Preventing Prostate Cancer

Prostate cancer is the second leading killer of men (after lung cancer). Many studies have focused on the ability of lycopene to help prevent prostate cancer. Studies show that men with prostate cancer have lower than healthy blood levels of lycopene as well as higher than healthy oxidized blood fats and proteins.

A landmark research study published in the *Journal of the National Cancer Institute* (1995) found that men who regularly ate 10 or more servings per week of tomatoes or tomato-based foods had a 45% lower risk of prostate cancer. Another study at Harvard Medical School conducted on 48,000 males over six years found that men who ate tomatoes or tomato-based foods more than twice a week had a 21 to 34% reduced risk of prostate cancer compared to men who did not consume these foods.

A study conducted at Wayne State University in Michigan showed prostate cancer patients who received 15 mg. of tomato extract twice daily had smaller tumors, tumor regression, decreased malignancy and decreased serum levels of PSA (the prostate-specific antigen that elevates in prostate cancer).

## Female Cancer and Lycopene

Lycopene also appears to have a beneficial effect on female cancers. Researchers found that women who consumed the largest amounts of lycopene had one-fifth the risk of developing precancerous conditions of the uterine opening (called the cervix) as compared to other women.

Another research group at Ben Gurion University and Seroka Medical Center in Israel reported that lycopene inhibited test-tube cancer cell growth of both breast and lung tissue.

## Lycopene Protects the Eyes

Studies show adequate levels of lycopene help protect the eyes. Regular exposure to sunlight when one has adequate nutrition, especially with an abundance of antioxidants such as lycopene, helps promote healthy eyesight. But if one has frequent sunlight exposure without adequate nutrition (and without sufficient antioxidant levels), the macula can be endangered. The macula, a small yellowish area in the eye, is the true center of sight at the back of the retina.

One large research study in Wisconsin involved 170 people with severe stages of age-related macular degeneration (ARMD), an eye condition that can cause blindness. The researchers found lycopene to be the key antioxidant that guards against ARMD.

Although the cartotenoids, lutein and zeathin, have been thought to be major players in preventing ARMD, the study showed their levels in the serum were not significant. The study found the people with the lowest levels of lycopene were twice as likely to have ARMD. Even though lycopene is not highly concentrated in the eye, it acts as a potent protector, which may be due to its ability to quench free radicals such as singlet oxygen, a reactive substance in the eye.

## Healthy Hearts

Lycopene may help protect against harmful cholesterol levels. A research team from the University of Toronto in Canada reported that lycopene inhibited the oxidation of LDL (low-density lipoprotein) cholesterol, the so-called "bad cholesterol". Using lycopene to lower LDL cholesterol could mean decreased risk of heart disease for many people.

## Lycopene: A Bright Future

With new research investigating lycopene's effect on asthma, osteoporosis and eye diseases, the future of lycopene's health applications appear limitless. In the meantime, enjoy our delicious-tasting, lycopene-rich tomato concentrate often — and give yourself and your family a powerful, protective antioxidant boost to help ensure your best health.


**Selected References**

Agarwal, Sand Rao, AV "Tomato lycopene and low density lipoprotein oxidation: A human dietary intervention study," *Lipids* (1998) 33:981-984.

Ames, BN et al, "Oxidants, Antioxidants and Degenerative Diseases in Aging," *Proceedings of the National Academy of Science* (1993) 90: 7915-7922.

"Can Lycopene Contribute to Lower Lung Cancer?" *AP Worldstream*, April 14, 1997.

Giovannucci, E., Ascherio, A., Rimm, ED et al "Intake of carotenoids and retinol in relation to risk of prostate cancer," *Journal of the National Cancer Institute* (1995) 87:1767-1776.

Karas, M., Amir, H., Fishman, D. et al "Lycopene interferes with cell cycle progression and insulin-like growth factor I signaling in mammary cancer cells," *Nutrition and Cancer* (2000) 36: 101-111.

Meres-Perlman, JA, "Serum Antioxidants and Age-related Macular Degeneration in a Population-Based Case-Control Study," *Archives Opthalmology* (1995) 113:1518-1523.

Michaud, DS, Feskanich, D., Rimm, ED et al "Intake of specific carotenoids and risk of lung cancer in 2 prospective US cohorts" *American Journal of Clinical Nutrition* (2000) 72: 990-997.

Rao, AV and Agarwal, S. "Role of antioxidant lycopene in cancer and heart disease," *Journal of the American College of Nutrition* (2000) 19:563-569.

Scheer, James, **Tomato Powder,** Advanced Research Press, Inc.: NY, 1999.



© Copyright 2001 PR Labs


Rev. 10/22/03


***This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.**