

Lutein and Zeaxanthin are Good for Your Eyes

You've probably heard that lutein and zeaxanthin are good for the eyes. These two major *carotenoids* found in the macula and retina are sometimes called xanthophylls or macular pigment. They function as *antioxidants* and also help protect tissues from phototoxic damage by filtering out some of the blue light.

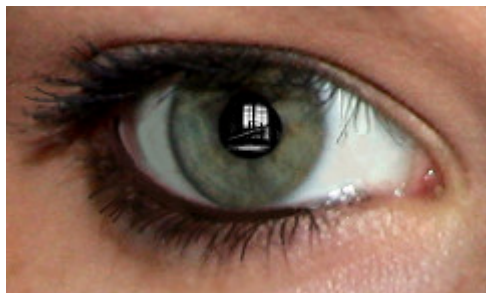


Photo by [K Conkling](#) 

The eye, and particularly the macula and retina, are almost constantly subjected to free radical generation and oxidative damage. Just as exposure to too much sunlight can damage the skin, so too can light damage the eyes. It is, thus, critical that you maintain your basic nutrients and especially antioxidants in the eye.

A study of macaque monkeys (with eyes similar to humans) showed that there was more zeaxanthin than lutein in the central fovea where vision is most clear. But, the concentration of zeaxanthin is reduced the further you get from the fovea and lutein dominates.

The macula has a yellow tint due to the presence of lutein, zeaxanthin and another xanthophyll called meso-zeaxanthin. It's these pigments that help filter out or absorb some of the more damaging blue light to help protect the eye.

What the Studies Show

Carotenoids are especially important because they seem to help prevent age related macular degeneration. A study indicated that getting high levels of carotenoids (especially in dark green leafy vegetables) in the diet results in a 43% lower risk of age related macular degeneration, the leading cause of blindness.

The original Age-Related Eye Disease Study showed that antioxidants (vitamin C, vitamin E, beta carotene, and zinc) reduced the risk of age related macular degeneration by 25%.

The second Age-Related Eye Disease Study showed beneficial effects of adding lutein and zeaxanthin to the mix for preventing late stage age related macular degeneration.

Another study showed that lower levels of the antioxidant lycopene in the blood was associated with age related macular degeneration.

A study of monkeys who were feed a diet with no plant pigments for several years found that these pigments dissppear in the macula. And retinal abnormalities resembling age relate macular degeneration appeared.

Overall, there is an inverse relationship between the amount of macular pigment and age related macular degeneration. The more pigment the less macular degeneration. The less pigment, the more macular degeneration.

The Third National Health and Nutrition Examination Survey (NHANES III) examined the contents of lutein and zeaxanthin in the blood and found a wide variation. The quarter of the people with the lowest concentration averaged 0.19 $\mu\text{Mole/L}$ while the average concentration for the upper quarter of the people was 0.79 $\mu\text{Mole/L}$. This is a difference of greater than 4 to 1.

How to Get Natural Antioxidants

Lutein and zeaxanthin cannot be synthesized or made within the body. They must come from external sources. If not in a supplement, they come almost entirely from plant sources.They may also come indirectly from plants through animals that eat plants.

The most important source of carotenoids are fruits and vegetables.

The best natural sources of both lutein and zeaxanthin are egg yokes and corn, both of which are yellow.

Most other fruits seem to supply more lutein or more zeaxanthin. For example, orange pepper has close to 5.6 time more zeaxanthin than lutein. But green pepper has 13 times more lutein than zeaxanthin.

Overall, most vegetables supply more lutein than zeaxanthin. Topping the list are egg yoke and corn. Other good sources for lutein and zeaxanthin include:

- Kiwi
- Red seedless grapes
- Zucchini squash
- Pumpkin
- Spinach
- Orange pepper
- Yellow squash
- Cucumber
- Peas
- Green pepper
- Red grapes
- butternut squash

- Orange juice
- Honeydew
- Celery stalks and leaves
- Green grapes

Conclusions You Can Use

Lutein and zeaxanthin are important components of eye health. These and other antioxidants are important to help reduce the likelihood of a number of eye problems including macular degeneration, cataracts and retinitis pigmentosa.

References

- [Fruits and vegetables that are sources for lutein and zeaxanthin: the macular pigment in human eyes](#) as published in the *British Medical Journal*
- [BIOLOGIC MECHANISMS OF THE PROTECTIVE ROLE OF LUTEIN AND ZEAXANTHIN IN THE EYE](#) as published in the *Annual review of nutrition*
- [Secondary Analyses of the Effects of Lutein/Zeaxanthin on Age-Related Macular Degeneration Progression AREDS2 Report No. 3](#) as published in the *Journal of the American Medical Association: Ophthalmology*
- [The Body of Evidence to Support a Protective Role for Lutein and Zeaxanthin in Delaying Chronic Disease. Overview](#) as published in the *American Society for Nutritional Sciences*

Get more health information at [Healthy Body Support](#).

Pollution and Weight Loss

Pollution is a fact of life in an industrialized society. Pollution, by its very definition, can cause harm to people, animals, and plants. As far as humans are concerned, pollution contributes to a number of serious illnesses including obesity and increased mortality.

Pollutants in the Atmosphere

A major pollutant produced by combustion is NO, nitrogen oxide. This reacts with ozone to form NO₂. Another pollutant is SO₂ which is produced by burning sulphur-containing fossil fuels (primarily coal and heavy oils).

Volatile organic compounds (VOCs) are another class of atmospheric pollutants. These includes numerous chemicals of an organic nature such as benzene.

Most atmospheric pollutants affect the respiratory system, but some can get into the blood and cause other diseases such as cancer.

Organic Pollutants

These chemicals last a long time in the environment and move through the food chain. These include pesticides, dioxins, and PCBs. Dioxins are formed by incomplete combustion and whenever plastics are burned. While dioxins are not dissolved by water, they enter the food chains by binding to lipids or fats.

Heavy Metals


They include arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, vanadium, and zinc. While these heavy metals are required for bodily functions, they should be present in the body only as "trace" elements. When ingested at higher concentrations than they are eliminated, they can reach dangerous levels and adversely affect health.

Heavy metals like lead, mercury, and arsenic as well as dioxins play an important part in kidney disorders, memory disorders, sleep disorders, fatigue, tremors, blurred vision, speech disorders, and other neurological impairments.

Particulate Matter

The air we breathe is composed mainly of nitrogen, oxygen, argon, and carbon dioxide. A few other trace gases are present as well as water vapor.



Photo by [aguscr](#) 

In addition to these components of air, there are various other particles carried by the air like dust and particulates created by volcanoes or fires. But, many types of particles are created from deliberate human sources like factories, power plants, incinerators, vehicles, and construction activities.

The sizes of the particles determine where their effects will be felt. Larger particles will affect the upper respiratory tract while finer particles will be deposited in the lungs. Most people believe that the finer particles are more injurious to human health.

Studies with mice have found that exposure to airborne pollutants causes weight gain. Human studies also confirm exposure to particulate matter in the air promotes weight gain. One human study found that the level of prenatal exposure to polycyclic aromatic hydrocarbons was a significant predictor of childhood obesity at 5 and 7 years of age.

Another study examined the effect of traffic pollution on children. They recruited participants in 45 schools in 13 communities of southern California. The weight and height of 4,550 children were measured annually. The researchers began with those children in kindergarten or 1st grade and continued for the next 4 years. The researchers found those children living with the highest levels of pollution had a 13.6% greater increase in annual BMI growth compared to those children living in the lowest traffic pollution areas.

How to Detox Your Body

Pollution causes irritation, inflammation, and increases insulin resistance. It can cause weight gain and definitely interferes with your attempts at weight loss.

Since pollution is a fact of life, we should be concerned about removing as much toxicity from our bodies as possible. This is where healthy eating comes in.

Nutrients that have natural chelation properties are especially important. These include antioxidants, herbs, minerals, essential amino acids, and fiber. Glutathione, vitamins C, E, and A are helpful. Polyphenols in most plants help prevent and protect cells from oxidative stress.

Red Tea Detox Allows You to Lose Weight

Most people do not know that toxins can affect their efforts at weight management. A detox can cleanse your body of toxins and enable you to finally lose weight.

[Click to get the FULL STORY of this amazing tea.](#)

References for your own research:

- [Human health effects of air pollution](#) published in the journal *Environmental Pollution*.
 - [Association of Childhood Obesity With Maternal Exposure to Ambient Air Polycyclic Aromatic Hydrocarbons During Pregnancy](#) published in the *American Journal of Epidemiology*.
 - [Traffic-related air pollution and obesity formation in children: a longitudinal, multilevel analysis](#) published in the journal *Environmental Health*.
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Stop Cancer Before it Starts

There are many organizations dedicated to finding the causes of and cures for cancer. You probably know recognize many of these such as:

- The American Cancer Society
- Cancer Research Institute
- The Lance Armstrong Foundation
- Lungevity Foundation
- Susan G. Koman for the Cure
- Leukaemia Research Fund

Yet, none of these organizations will be of much benefit to you if you do not practice good cancer prevention strategies.

Stop Cancer Before it Starts

Your probably already know how to prevent most cancers. We don't need more research to discover these simple cancer stopping techniques.



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- Don't smoke or use tobacco.
- Eat healthy foods. This means plenty of fruits and vegetables, avoid processed meats and, if you must drink alcohol, drink in moderation.
- Avoid obesity. Maintain a healthy weight and get plenty of exercise.
- Avoid overexposure to the sun. Skin cancer is a common form of cancer.
- Avoid carcinogens. These include viruses, bacteria, and parasites as well as air, water and soil pollution.
- Avoid a compromised immune system.

Some Cancer Prevention Research to Keep in Mind

Eat Your Veggies

One [study](#) published in the journal *Epidemiology* studied how fruits and vegetables affected rates of cancer of the colon, rectum, and breast. The authors indicated that carotenoids, flavonoids, phenols, isothiocyanates, fiber, and vitamins C and E could have anti-carcinogenic effects.

They found that raw carrots were the only vegetable that lowered cancer risks by 20% or more for all three types of cancer. They also found that apples, pears, and kiwi were associated with at least a 5% risk reduction for all three cancer types.

Overall high intake of raw vegetables lowered risks by 20% for colon cancer, 18% for cancer of the rectum, and 15% for breast cancer.

Cooked vegetables also reduced risks by 28% for colon cancer, 20% for cancer of the rectum, and 4% for breast cancer.

Watch Out for Sugar

Cancer cells love glucose (blood sugar). They take in and metabolize glucose faster than normal cells.



This fact allows positron emission tomography (PET) scans to detect cancerous tumors without invasive operations. This is possible by giving the patient a glucose analogue of slightly radioactive FDG. The cancer cells suck this up and it accumulates in cancerous tumors and can easily be detected in a PET scan.

Another [study](#) published in the journal *Cancer* investigated various glucose transport mechanisms in human breast cancer.

Glucose transport across cell boundaries is performed with the help of various protein enzymes. They found that the so-called Glut-1, Glut-2 and Glut-4 protein enzymes were active in breast cancer, but Glut-3 and Glut-5 mechanisms were not as active. Glut-1 was the most active means of taking glucose into breast cancer cells. Such studies can help identify ways to slow down or inhibit the sugar feeding of cancer cells.

Another [study](#) published in the *British Journal of Cancer* looked at breast cancer rates in various countries. The researchers found that the rate of breast cancer in older women (aged 65-69) were positively correlated with sugar and fat consumption.

Yet another [study](#) published in *The American Journal of Clinical Nutrition* examined risks for pancreatic cancer and consumption of sugar sweetened foods. The study looked at 77,797 women and men.

This study found that those who consumed the most sugar were 1.95 times as likely to get pancreatic cancer as those consuming the least amount of sugar. Similarly for soft drinks, those who consumed most were 2.3 times as likely to get pancreatic cancer as those who consumed the fewest soft drinks.

The researchers thought that high levels of blood glucose created oxidative stress which resulted in free radical damage to the pancreatic cells. The

idea is that the regions of the pancreas produce hormones have low concentrations of antioxidant enzymes. Thus, they are especially susceptible to glucose created free radicals.

Yet another [study](#) published in the *British Medical Journal* examined how the consumption of sugar and fat affected the risk of colorectal cancer.

They found that the overall calorie intake of those with large bowel cancer was 18% higher than their control group without cancer. Those with cancer consumed 21% more carbohydrates than those without cancer.

The cancer patients consumed 41% more sugars with little or no fiber and 19% less natural sugars with fiber. They found that the third of the study group consuming the most refined sugars (with high energy to fiber ratios) had an 8 times greater risk of contracting large bowel cancer than those in the lower third of refined sugar consumption.

If you're not convinced already, another [study](#) published in the journal *Cancer Causes and Control* looked at the medical history of 98,030 women aged 55 to 69 years in Iowa. These women were mailed a questionnaire on known and suspected cancer risk-factors.

They found that BMI was related directly to cancer risk. Cancer risk for 60% of the women with the highest BMIs was from 40 to 70 percent higher than for those in the lowest 40% of BMIs. There was also double the risk of colon cancer in women consuming the most sucrose-containing foods.

You Can Stop Cancer Before it Starts

Research tells us not only the causes of cancer, but how to prevent many cancers types.

Cancer prevention strategies include consuming healthy fruits and vegetables and avoiding processed sugars that are depleted of fiber.

Unfortunately, this requires some effort on your part. You'll need to about most of the manufactured foods that contain lots of added sugars. And, you'll need to eat more raw fruits and vegetables.

If you like fruit or vegetable juices, switch to [blended smoothies](#) that retain the [natural fiber](#).

Cancer prevention is a choice you must make. Make the right choices and stay healthy.

Discover the Health Benefits of Turmeric

What is Turmeric?

Turmeric is an inexpensive, tasty, yellow spice used extensively in Asian food. It is also used as a dye for saris and Buddhist monk's robes. Turmeric is a perennial plant that is native to South and Southeast Asia. It requires warm temperatures (68-86 degrees Fahrenheit) and a rainy environment.



Photo by [bungasirait](#) 

It has a long history of use spanning thousands of years in both India and China as a cure for many ailments. Turmeric has played a part in Ayurveda, Siddha medicine, Unani, and traditional Chinese medicine for centuries. More recently western researchers have investigated turmeric and have discovered evidence of many health benefits. One active ingredient in turmeric, curcumin, has shown its power for its antioxidant and anti-inflammatory properties. More than a billion people regularly consume curcumin in their diet.

Health Benefits of Turmeric

One key to health involves preventing free radical damage throughout your body. Free radicals are atoms or molecules with unpaired electrons that cause chemical reactions (oxidative damage) with cells in your body. They can damage lipids, proteins, DNA, or cell membranes. Free radical damage prevents the body from functioning normally and often causes inflammation or even cell death.

Unfortunately, there are many things in our environment that can create free radicals. Free radicals can be generated by the foods we eat, various drugs and medicines, air and water pollutants, pesticides and exercise to name a few. Oxidative damage caused by free radicals has been associated with various chronic diseases such as cancer, atherosclerosis, and neurodegenerative diseases as well as aging.

To the rescue come antioxidants. These free radical scavengers either prevent

free radicals from forming or react with existing free radicals to neutralize them and make them safe. By reducing damage, any inflammation to aid in repairing cell damage is less necessary.

Curcumin has a "[potent anti-inflammatory property](#)" that helps keep free radical contained. It's antioxidant property is 5 to 10 times stronger than vitamins C and E.

But, you should not consider curcumin as a medicine to be taken when you become ill. It is best used daily to help contain free radicals and reduce inflammation. It is a key nutrient that you should take every day.

What Free Radical Damage Diseases Can Turmeric and Curcumin Help Prevent?

Oxidative stress has been a [known factor in many diseases](#) such as:

- cancer
- autoimmune disorders
- aging
- cataract
- rheumatoid arthritis
- cardiovascular disease
- neurodegenerative diseases

Subash C. Gupta, Sridevi Patchva, and Bharat B. Aggarwal in their article [Therapeutic Roles of Curcumin: Lessons Learned from Clinical Trials](#) in *American Association of Pharmaceutical Scientists Journal* citing half a century of research on curcumin indicated:

Some promising effects have been observed in patients with various pro-inflammatory diseases including cancer, cardiovascular disease, arthritis, uveitis, ulcerative proctitis, Crohn's disease, ulcerative colitis, irritable bowel disease, tropical pancreatitis, peptic ulcer, gastric ulcer, idiopathic orbital inflammatory pseudotumor, oral lichen planus, gastric inflammation, vitiligo, psoriasis, acute coronary syndrome, atherosclerosis, diabetes, diabetic nephropathy, diabetic microangiopathy, lupus nephritis, renal conditions, acquired immunodeficiency syndrome, β -thalassemia, biliary dyskinesia, Dejerine-Sottas disease, cholecystitis, and chronic bacterial prostatitis.

Clinical trials of turmeric and curcumin are ongoing. Some clinical trials are looking various types of cancers (breast, prostate, pancreatic, lung and colorectal), type 2 diabetes, rheumatoid arthritis, ulcerative colitis, dermatitis, cognitive impairments and depression.

Bio-Availability Problem

Clinical trials show that when consumed, the bioavailability of curcumin is relatively low. The liver rapidly clenses the bloodstream of curcumin, quickly making it ineffective.

Several studies has shown that both black pepper and fats greatly help the absorption and retention of curcumin. So, it's best not to take curcumin on an empty stomach, but rather with a meal including some fats and black pepper.

How to get the most of Curcumin. Should you take pills or whole turmeric? How do you increase the bioavailabilty of curcumin? What other foods should you eat with turmeric? These questions and much more are answered in this video!

Video Rating: / 5