

Chlorophyll

Chlorophyll



Chlorophyll is a plant pigment that gives most plants their characteristic green color. They help plants in photosynthesis, which is the process by which green plants use sunlight to manufacture carbohydrates from carbon dioxide and water. Chlorophyll is capable of converting light energy that can be stored and used by the plants when needed. This process is known as photosynthesis and is the basis for sustaining almost all life on the planet. Since animals and humans obtain their food supply by eating plants, photosynthesis can be said to be the source of our life also.

The molecular structure of chlorophyll is similar to that of hemoglobin, which is responsible for carrying oxygen throughout our body. Chlorophyll happens to be central molecule for increasing oxygen availability in our system. It is also vital for the body's rapid assimilation of amino acids. The way to tell if a vegetable has enough chlorophyll content is by looking at its leaves. Algae are the richest known source of chlorophyll. Dark green veggies like spinach, spirulina, wheat grass, broccoli and alfalfa are also very rich in chlorophyll content. These vividly colored plants not only brighten your plate but also add a lot of nourishment to your diet. They are also a rich source of antioxidants and studies have shown that they go a

long way towards preventing liver cancer, skin cancer, colon cancers and rheumatoid arthritis.

Chlorophyll and Chlorophyllin

- Chlorophyll a and chlorophyll b are natural, fat-soluble chlorophylls found in plants.
- Chlorophyllin is a semi-synthetic mixture of water-soluble sodium copper salts derived from chlorophyll.
- Chlorophyllin has been used orally as an internal deodorant and topically in the treatment of slow-healing wounds for more than 50 years without any serious side effects.
- Chlorophylls and chlorophyllin form molecular complexes with some chemicals known or suspected to cause cancer, and in doing so, may block carcinogenic effects. Carefully controlled studies have not been undertaken to determine whether a similar mechanism might limit uptake of required nutrients.
- Supplementation with chlorophyllin before meals substantially decreased a urinary biomarker of aflatoxin-induced DNA damage in a Chinese population at high risk of liver cancer due to unavoidable, dietary aflatoxin exposure from moldy grains and legumes.
- Scientists are hopeful that chlorophyllin supplementation will be helpful in decreasing the risk of liver cancer in high-risk populations with unavoidable, dietary aflatoxin exposure. However, it is not yet known whether chlorophyllin or natural chlorophylls will be useful in the prevention of cancers in people who are not exposed to significant levels of dietary aflatoxin.

A recent study conducted by researchers from Oregon State University (OSU) has found that chlorophyll works effectively to block bodily absorption of aflatoxin, a fungal contaminant found in many grain and legume stocks. Research participants who were given chlorophyll alongside aflatoxin did not absorb the carcinogen as readily as those who were given only aflatoxin did.



Published in the journal Cancer Prevention Research, the study utilized a new, state-of-the-art assessment method called "Phase 0" which essentially evaluates the effects of carcinogens by administering them in safe micro-doses. Praised by researchers as a breakthrough testing procedure, Phase 0 utilizes an accelerator mass spectrometer that is able to measure minute variations of toxic exposure and assess toxicity levels down to the smallest increments.

Many developing countries around the world have food supplies that are tainted with high levels of aflatoxin. Aflatoxin is implicated in causing problems in the liver, including liver cancer. George Bailey, an OSU scientist who has studied aflatoxin exposure in China, found that in one region ten percent of inhabitants die from aflatoxin-induced liver cancer.

Using Phase 0 technology, researchers were able to determine that aflatoxin is absorbed very rapidly by the body once ingested. In the presence of chlorophyll, however, aflatoxin is prevented from entering the bloodstream and quickly eliminated from the system. Researchers will conduct further research in order to understand better how chlorophyll works to block aflatoxin absorption.

Benefits of Chlorophyll

There are several reasons why green foods are considered blood-building foods but mainly because of the similarity in structures of the two colored pigments, the red heme of red blood cells and the green chlorophyll.

A lists of health benefits:

- 1. Chlorophyll aids in gastrointestinal problems.**

A diet of refined carbohydrates, low fiber and animal fats contribute to diseases starting in the colon. Improving the digestion and assimilation can best treat gastrointestinal problems. Among those natural nutrients that heal the intestinal track, green vegetables high in chlorophyll content aid in loosening and cleansing the colon.

- 2. Chlorophyll promotes formation of hemoglobin and red blood cells.**

Hemoglobin is the iron-containing substance that provides red blood cells the red pigments and transports oxygen to the body tissues. In fact, blood is composed of 75% of hemoglobin. As green food is digested, the magnesium absorbed helps in rebuilding and replenishing the red blood cells.

- 3. Chlorophyll treats bad breath.**

Bacteria in a person's mouth and gut lining can cause bad breath. The bacteria excrete odiferous waste products. The sulfur compounds of waste products usually lie at the root of breath odor problems. The double action of chlorophyll acts as a deodorizer and anti-bacterial and can eliminate bad odor.

- 4. Detoxify.**

Researches found that the damaged genes caused by carcinogenic substances can be prevented by chlorophyllin, a derivative of chlorophyll wherein the magnesium is removed and replaced with copper. It reduces the binding of carcinogens from foods like cooked meat products that damage the DNA and other organs of the body, particularly the liver.

- 5. Beneficial in assimilating calcium and other heavy minerals.**

Chlorophyll is very easy to absorb and assimilate. Chlorophyll can assimilate calcium and balance other

trace minerals to rebuild, replace, and exchange with new tissue.

6. **Chlorophyll fights infections.**

Antioxidant and anti-inflammatory compounds containing Vitamin A, C and E are responsible for reducing inflammation. The healing aspects of chlorophyll were demonstrated in 1940 by Dr. Benjamin Gruskin, whose in vitro experiments showed that chlorophyll possesses anti-bacterial properties and strengthen tissues.

Chlorophylls are the most abundant pigments in plants. Dark green, leafy vegetables like spinach are rich sources of natural chlorophylls. Prolonged cooking of vegetables does decrease the chlorophyll content in the food. However, studies also show that steaming vegetables like spinach for a few minutes can actually increase the amount of chlorophyll that can be absorbed into our body. But don't over cook the vegetables until they lose their bright green color and turn olive drab.



Be sure to try NSP's [Chlorophyll \(60 caps\)](#) or [Chlorophyll , Liquid \(32 fl. oz.\)](#) from Nature's Sunshine. You can see other products containing Chlorophyll by [clicking here](#).

References

<http://www.nutrientreference.com/chlorophyll.html>
<http://www.natural-health.net.au/articles/nutrition/chlorophyll>
<http://lpi.oregonstate.edu/infocenter/phytochemicals/chlorophylls/>
<http://thealkalinediet.org/blog/6-chlorophyll-benefits-healing-powers>
http://www.naturalnews.com/027968_Chlorophyll_carcinogens.html

Yours in Good Health!

Sincerely,

Chris Ritchason
Dr. Jack & Verlyn Ritchason, Founders
The Back to Herbs Team

Disclaimer: We do not directly dispense medical advice or prescribe the use of herbs or supplements as a form of treatment for illness. The information found on this Web Site is for educational purposes only to empower people with knowledge to take care of their own health. We disclaim any liability if the reader uses or prescribes any remedies, natural or otherwise, for him/herself or another. Historically all of these herbs & vitamin supplements may nutritionally support the bodies biological systems. Please consult a licensed health professional should a need be indicated.

This information was provided by

Chuck & Judy Erkfitz

Natures Better Way

PO Box 261 - 880 W Dryden Rd., Metamora, MI 48455

www.naturesbetterway.com

www.naturesbetterway.my4life.com

www.mynsp.com/naturesbetterway

1-810-678-3131 erkfitz@erkfitz.com