

Dietary Supplements
Wachters' Organic Sea Products
Product Specification Information

No. 41 - Liquid Dietary Chlorophyll

No. 41B - Product Code 5340 - 16 oz.

No. 41D - Product Code 5400- 1/2 gal.

No. 41C - Product Code 5360 - 1 gal.

One tablespoon supplies 70 mg of Chlorophyll

Liquid Dietary Chlorophyll is one of Wachters' most popular products. And for good reason: it serves as a general tonic as well as many other important functions. Chlorophyll is a ubiquitous substance, yet many people aren't aware of how it is made and why it is so effective in many Wachters' nutritional products.

The late Bernard Jensen, D.C., well-known nutritionist, in his 1973 book discusses in detail "The Healing Power of Chlorophyll." Among some of the remedial effects of Chlorophyll, Dr. Jensen lists are:

- Builds a high blood count
- Provides iron to the organs
- Counteracts toxins eaten
- Improves anemic conditions
- Cleans and deodorizes bowel tissues
- Helps purify the liver
- Aids hepatitis improvement
- Feeds iron to the heart
- Regulates menstruation
- Aids hemophilia conditions
- Improves blood sugar problems (diabetes)
- Aids in asthma improvement
- Increases iron content in mother's milk
- Improves mother's milk production
- Helps sores heal faster
- Eliminates body odors
- Resists bacteria in wounds
- Cleans tooth and gum structure in pyorrhea
- Improve nasal drainage
- Slows nasal drip
- Lessens need for underarm deodorizers
- Eliminates bad breath

- Relieves sore throat
- Makes an excellent tooth surgery gargle
- Benefits inflamed tonsils
- Soothes ulcer tissues
- Soothes painful hemorrhoids and piles
- Aid catarrhal discharges
- Revitalizes vascular system in the legs
- Improves varicose veins
- Reduces pain caused by inflammation

What is Chlorophyll?

Chlorophyll is the green pigment found in higher plants as well as in marine algae. This green pigment, composed of carbon, hydrogen, oxygen, nitrogen and magnesium, plays a key catalytic role in photosynthesis, the process of transforming light energy into chemical energy.

During photosynthesis, the radiant energy of the sun is trapped by the light-absorbing pigment Chlorophyll. Carbon dioxide and water are the raw materials for photosynthesis. Carbon dioxide is drawn from the air. Water is absorbed through the roots of the plants and the fronds of sea vegetation. Glucose, the chemical energy, is the end product of photosynthesis. Oxygen and water are by-products. And the cycle begins again.

An analogy has been drawn between Chlorophyll and the hemoglobin (red cells) in human blood. Chlorophyll is remarkably similar in molecular structure to the heme group of globins, hemoglobin, myoglobin and cytochromes.

Chlorophyll, as the catalytic agent in the process of photosynthesis, is chemically one metal ion molecule away from heme, the red protein coloring matter of hemoglobin which are the red blood cells that carry life-giving oxygen to the tissues. In the heme molecule, the heart is iron. The heart of the Chlorophyll molecule is magnesium.

We know that oxygen is the course of our human energy. Every cell must receive adequate supplies of oxygen to function effectively. Since Chlorophyll in plants releases oxygen, studies have suggested that Chlorophyll might be the biological forerunner of heme. Again, by analogy, Chlorophyll is truly "The Blood of Plants."

What are some of Chlorophyll's activities?

Chlorophyll may have antimutagenic and anticarcinogenic activities. It may help protect against some toxins and may ease some drug side effects. Chlorophyll is useful in reducing various body odors, can help relieve constipation and may be helpful in the treatment of calcium oxalate stone disease. It may also have some anti atherogenic activity.

In animal studies, Chlorophyll significantly helped fight against aflatoxin B¹ damage. It also reduced liver, stomach and swimbladder cancer incidence. In geriatric studies, Chlorophyll helped control body odors and relieved chronic constipation.

Additionally, anecdotal historical use has included Chlorophyll as a detoxifier, a blood cleanser and a catalyst for making oxygen more easily available to the cells. It is commonly used by athletes and executive and teachers - indeed anyone wanting a natural food supplement that increases energy and stamina.

The Story of Chlorophyll

Late one hot August night in 1771 in Leeds, England, a man sat with his chin resting on his hand watching a mouse in a bell jar. The glass jar was inverted in a dish of water and under the jar was a growing sprig of common mint. A glowing candle was also inside the jar and the mouse was active. The man pondered. When he put the lighted candle under the jar without the green mint, the candle soon refused to flame... and went out. When he put a fresh piece of mint under the jar, a candle would burn and a mouse could live in this confined atmosphere.

What did the sprig of green mint add to the "fixed air" under the jar that would cause a candle to burn and the mouse to continue living?

The man was Joseph Priestley, afterwards known as the discoverer of oxygen and the principle which chemists term "photosynthesis." That night for the first time, Priestley was convinced that green, growing plants give off oxygen, the element without which human life cannot exist.

Forty-six years after Priestley's discovery of the photosynthetic principle in green plants, the pigment in which it resides was named chlorophyll from the Greek "Chloros" (green) and "Phyllon" (leaf).

Every culture throughout history has used plants as their primary source of medicines. The healing properties of chlorophyll, as a substance of plants, has been known to health practitioners through the ages. The Egyptians and early Greeks, who were skilled in the art of early medicine, sought green leaves of various types for treating wounds. Likewise, the Native American whose knowledge of plants is endless, used plant chlorophyll to heal.

Chlorophyll Wins the Nobel Prize

In 1915 the Nobel Prize for Chemistry was awarded to a German chemist, Dr. Richard Willstatter. He determined what natural chlorophyll was; what and how much carbon,

oxygen, hydrogen were composed in chlorophyll; how they were groups in the molecule - that the heart of the molecule was the metal magnesium; how it could be hydrolyzed in the laboratory and made water-soluble. Making chlorophyll water-soluble was the first step toward making it readily useful for humankind.

Willstatter first observed that the structural pictures of hemin and chlorophyll looked very much alike, except that the heart of the hemin is iron and the heart of the chlorophyll molecule is magnesium. He was also able to replace the magnesium chlorophyll-derivative with an iron molecule, thereby suggesting chlorophyll might be useful for people suffering from nutritional anemia.

From what we know of natural chlorophyll in its oily state, it is of limited use to the body when taken internally. However, an entire class of water-soluble chlorophyll derivatives are widely used in medicine, in deodorants, in tooth cleansers and even in the industrial deodorization of fabrics.

The fundamental concept of chlorophyll as a blood-builder captured the imagination of the Swiss physician, Dr. Emil Burgi, in 1916. His discoveries created a whole school of European investigators working on chlorophyll as a tonic for the blood, for certain heart conditions in the healing of wounds and many other human ailments. Burgi wrote of the effect of a chlorophyll ointment in 1937 and 1938. In 1935, American Dr. Benjamin Gruskin applied for a patent on the wound-healing action of water-soluble chlorophyll on wounds.

In the 1920s, Gordonoff had established in animal experiments that chlorophyll stimulated the functions of almost all the organs of the body. An isolated frog heart that had ceased to beat was placed in a container holding only a hydrogen nutrient, no oxygen being present. Chlorophyll was added and the heart revived and continued to beat for a long period. He also found that similar activity could be induced on other organs and muscles of frogs.

Fifteen years later, in 1930, the Nobel Prize in Chemistry was awarded to the German chemist, Dr. H. Fischer of Munich, for his further chlorophyll studies.

Rothmund reported chlorophyll as a benefit in reducing inflammation in degenerating and hardening arteries. Other uses have been found in cardiology, in treating hypertension and for treating various disorders of the nervous system.

As the final days of World War II approached, Japan was blockaded by American forces. Under continuous bombing, Japanese casualties soared and medical supplies began to run short.. According to various reports, Japanese doctors embarked on a plan to substitute chlorophyll from sea vegetation for the needed plasma. Historical reports have indicated that patients' circulatory systems read the chlorophyll as hemin and utilized it immediately and they were able to recover.

The Nutritional Functions of the Ingredients

Active ingredient	Function
Chlorophyll	<ul style="list-style-type: none"> • May serve as a detoxifier.
	<ul style="list-style-type: none"> • Aids in reducing various body odors.
	<ul style="list-style-type: none"> • May act as a blood cleanser.
	<ul style="list-style-type: none"> • can help relieve constipation.

	<ul style="list-style-type: none"> • May serve as a catalyst for making oxygen more easily available to the cells.
	<ul style="list-style-type: none"> • May help protect against some toxins and may ease some drug side effects.
	<ul style="list-style-type: none"> • May be helpful in the treatment of calcium oxalate kidney stone disease.
	<ul style="list-style-type: none"> • May also have some antiatherogenic activity
	<ul style="list-style-type: none"> • May have antimutagenic and anticarcinogenic activities

plus Filtered Water and Wachters' Exclusive Blend of Sea Vegetation®.

Other Wachters' Chlorophyll Products

Because they are easily digestible and highly absorbable, Wachters' offers several exceptional Chlorophyll products created to satisfy the needs of different clients:

No. 6 - Sea Vegetation Alfalfa - 180 tablets.

Contains Wachters' Blend®, Alfalfa, Chlorophyll & Alfalfa Juice Concentrate.

No. 19 - N-er-G - 30 individual packets, each contain 250 mg of powdered Chlorophyll.

Contains Chlorophyll, Aloe Vera, Ester C® and Wachters' Exclusive Blend of Sea Vegetation®.

No. 42 - Tableted Chlorophyll - 100 tablets.

Contains 25 mg of Chlorophyll.

Professional Formula C - 2 oz powder/ 57 grams.

One teaspoon supplies 1000 mg of Chlorophyll - our highest concentration of Chlorophyll.

Wachters' manufactures over 100 nutritional products, all containing the Wachters' Blend of Sea Vegetation® and Chlorophyll. Only pharmaceutical grade ingredients are used. All tablet and powder products are made without heat or moisture.

Wachters' Organic Sea Products contain no preservatives, colorings, artificial flavorings, starch, yeast or animal products. No heat or chemical are used in preparation.

These statements have not been evaluated by the Food and Drug Administration. These statements are not intended to diagnose, treat, cure or prevent any disease. Please consult your health practitioner.

**The Wachters' Organic Sea Products Corporation, 550 Sylvan Street, Daly City, CA 94014
Order line: 1-800-682-7100 - Website: www.wachters.com**