

## The Unique Clinical Benefits of Chlorella

Mark Drucker, M.D.

Over the years, Sun Chlorella Corp. has been sponsoring *true* clinical trials, carefully designed and carried out according to current conventional methodologies used in the pharmaceutical industry for drug development and testing. These “double-blind” clinical trial studies have greatly contributed to the substantiation of why Chlorella pyrenoidosa is so widely recognized within the scientific, alternative, and medical communities.

According to human immunology expert Randall E. Merchant, Ph.D. of Virginia Commonwealth University, in Richmond, Virginia, Sun Chlorella and Wakasa Gold (liquid chlorella) may be helpful to those suffering from a number of serious health problems because of the many unique clinical benefits found naturally in this superfood. Dr. Merchant states that many who suffer from chronic illnesses, “are known to have nutritional problems...and when proper nutrition returns, some of the symptoms and problems dissipate.” Such individuals can benefit from the superlative nutritional powers of Sun Chlorella.”

Sun Chlorella is a natural whole-food supplement derived from a superior species of freshwater single-celled green algae called *Chlorella pyrenoidosa*. *Chlorella pyrenoidosa* has a wide range of potent antioxidants including chlorophyll, Chlorella Growth Factor (CGF), beta-carotene, vitamin E, vitamin C, and polyphenolic compounds. This superfood provides a rich source of antioxidants that help to enhance your natural defense system. Sun Chlorella also naturally provides protein, dietary fiber, lutein, B vitamins, omega fatty acids, nucleic acids, essential amino acids, and important minerals including phosphorus, calcium, zinc, iodine, magnesium, iron, and copper.

### The Clinical Benefits are *Truly* Unique

The four principal components of Sun Chlorella that have been proven to have *unique clinical health benefits* include **the fibrous cell wall, chlorophyll, beta-carotene**, and the powerful **Chlorella Growth Factor (CGF)**. What sets Sun Chlorella apart from any other chlorella company is its exclusive patented pulverization process utilizing the DYNO<sup>®</sup>-Mill machine.

**DYNO<sup>®</sup>-Mill** - The processing of chlorella is critical in its ability to perform its many useful health functions. The tough outer cell wall of the plant must be pulverized in order for the body to absorb the plentiful nutrients and benefits from the plant. ***And here is where Sun Chlorella is truly unique:*** its patented pulverization process utilizing the DYNO<sup>®</sup>-Mill machine. With the exclusive DYNO<sup>®</sup>-Mill pulverization process, there are no chemicals or additives used that can damage the vital nutrients of the chlorella cell. Sun Chlorella is the only chlorella on the market to contain 95%-99% pulverized cell wall, allowing for optimum digestibility. **Other methods do not allow your body to fully utilize the nutritious fibrous cell wall.** This patented DYNO<sup>®</sup>-Mill pulverization process has been recognized as the industry leader, exclusive only to Sun Chlorella.

**The Fibrous Cell Wall** - The fibrous cell wall of chlorella has a special effect on your intestines. This fibrous material improves the purification of the blood by binding organic chemical compounds and noxious substances in the bowel, and by stimulating the production of aerobic, friendly bacteria. This remarkable purifying capacity removes the body’s natural toxic by-products as well as environmental toxins such as heavy metals and pesticides, and promotes normal peristalsis. Peristalsis is the muscular contraction that moves material through the bowels. This normal movement prevents constipation and also helps to prevent toxic material in the stool from being re-absorbed into the bloodstream.

**Chlorophyll** - Chlorophyll is the most powerful cleansing and purifying agent in nature. It detoxifies the liver and bloodstream, cleanses the bowel, and reduces the acid levels in your body. When your system becomes even slightly acidic, free radical formation and oxidative reactions increase. Chlorophyll is actually a natural “deodorizer,” which is why it’s commonly found in mouthwash, breath fresheners, and deodorants. Taken internally, it may detoxify and cleanse the blood of wastes, parasites, and the bacteria feeding on them, as well as promote cell health and improved immune function. Chlorophyll’s nucleic and amino acid profile also meets the protein needs of our brain—it builds the neuropathies for creative thoughts and positive emotions. Sun Chlorella is naturally super-concentrated with chlorophyll.

**Beta-carotene** - Beta-carotene is necessary for the growth and repair of body tissue, protection against air pollutants, and reducing susceptibility to germs. The body utilizes beta-carotene to create vitamin A, which plays a vital role in vision health, bone development, reproduction, and immune system regulation. Beta-carotene may also prevent harmful substances from damaging DNA. Chlorella is very high in beta-carotene and other carotenoids including alpha-carotene, lycopene, and glutelin.

**Chlorella Growth Factor** - Chlorella Growth Factor (CGF) is a key component derived from the nucleus of the plant with an abundance of naturally occurring amino acids, peptides, proteins, vitamins, sugars, polysaccharides, and nucleic acids. Polysaccharides stimulate the production of interferon, the “fuel” your body’s own natural defense system needs to work at its full capacity. During the intense photosynthesis that enables chlorella to grow so fast, each cell multiplies into four new cells every 17-20 hours. CGF is the factor that promotes this rapid rate of reproduction. Extensive studies with CGF have demonstrated its ability to boost growth rate in microorganisms and small animals, and stimulate faster, healthier growth in young children.<sup>1</sup>

Studies at the School of Medicine, West Virginia University, demonstrated that chlorella has the potential to help remove poisoning of chlorinated hydrocarbons (a major toxic pollutant found in pesticides and herbicides), dioxin, and PCB’s.<sup>2</sup> In other studies, chlorella was equally effective in eliminating heavy metals such as mercury, copper, and cadmium.<sup>3</sup>

### **Clinical Trial Studies with Chlorella**

Some of the clinical investigations completed by Dr. Randall E. Merchant and a team of physicians at the Virginia Commonwealth University have included fibromyalgia, ulcerative colitis, and hypertension. Their primary focus was on the potential benefit of dietary supplementation with *Chlorella pyrenoidosa* to help improve quality of life, and normalize body functions in patients with these chronic illnesses. All of the subjects in each of the clinical studies suffering from either fibromyalgia, ulcerative colitis, or hypertension, consumed 10 g of pure *Chlorella pyrenoidosa* in tablet form and 100 ml of a liquid every day for two or three months.<sup>4</sup>

### **Chlorella – Excellent for Everyone**

Dietary supplementation with *Chlorella pyrenoidosa* has had a beneficial effect in many of the people who have participated in the individual clinical trial studies. Dr. Merchant’s research suggests that adding *Chlorella pyrenoidosa* (a natural whole food) to the diet, rather than relying solely on pharmaceutical drugs may be extremely beneficial to those who are dealing with serious health issues, and those who want to stay healthy! Everyone – young and old, healthy and ill – can benefit from Sun Chlorella’s purification abilities, natural defense protection, and wholesome nutrition. Sun Chlorella does so by purifying, nourishing, and protecting your body so your own natural defenses are able to go to work. This may also enable your body to deal with the root of the problem naturally, rather than merely masking the symptoms. This is clearly a superfood that should be a part of everyone’s diet!

For more information or a **FREE** sample of Sun Chlorella, please call **1-800-829-2828, ext. 2604**.

<sup>1</sup> Yamagishi, Yoshio, et al. School children’s growth and the value of chlorophyll. *Nihon Iji Shimpo* 2196 (1961).

<sup>2</sup> Pore RS. 1984. Detoxification of chlordecone poisoned rats with chlorella and chlorella derived sporopollenin. *Drug Chem Toxicol* 7(1):57-71.

<sup>3</sup> Horikoshi, T., A. Nakajima and T. Sakaguchi: Uptake of Uranium by Various Cell Fractions of *Chlorella regularis*. *Radiosotopes* 28(8), 485-487, Aug. 1979.

<sup>4</sup> Randall E. Merchant, Ph.D., and Cynthia A. Andre, MSc., “A Review of Recent Clinical Trials of the Nutritional Supplement *Chlorella pyrenoidosa* in the Treatment of Fibromyalgia, Hypertension, and Ulcerative Colitis”, May/June 2001, Vol. 7., No. 3, pgs. 79-91.