

**"The most courageous voice yet on Chlorella & Spirulina."**

**Superfoods  
For Optimum  
Health:**

**Chlorella  
and  
Spirulina**



**by Mike Adams**



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## The Most Exciting Nutritional Discovery on Planet Earth

Chlorella and spirulina are truly the most astounding food sources on planet Earth. In this special report, you'll learn about the astonishing health benefits and nutritional achievements of these two foods, and you'll see why you need to get these into your diet immediately.

Most people have heard of chlorella and spirulina, but they don't really know the details of why these are truly the best food sources on the planet. For example, did you know that, ounce per ounce, spirulina contains twelve times the digestible protein of beef? It's a far better protein than beef, and it contains a much healthier mineral balance (such as magnesium) that just isn't found in beef.

Did you know that a phytochemical found in chlorella can actually rebuild nerve damage in the brain and nervous system? That's why chlorella is being used in the recovery of patients with Alzheimer's and Parkinson's disease.

Were you aware that both chlorella and spirulina can actually reverse cancer in the human body? Both of these superfoods have been clinically shown to demonstrate stunning preventive and curative properties when it comes to all sorts of cancers.

And finally, did you know that these superfoods also contain a high content of essential fatty acids such as GLA that are routinely missing from the diets of most Americans and yet are critical for healthy brain function?

That's just a taste of what these superfoods really have to offer. These foods are so packed with healing properties that if pharmaceutical companies could patent them and sell them as drugs, they would cost \$100 a gram and be front page news all over the world. Their ability to halt cancers would be heralded as a "medical breakthrough" and doctors everywhere would be urged to prescribe these substances to every one of their patients. It would be nothing less than a blockbuster, multi billion dollar pharmaceutical achievement.

But it isn't a drug, it isn't manufactured in a drug lab, and it doesn't cost \$100 a gram. In fact, it costs around 11 cents a gram from the sources I mention in this report, and nature makes it for free.

Keep reading, and you'll learn all about it. And just so you know where this information is coming from, my name is Mike Adams, and I'm a holistic health investigative journalist. I research and report on topics that help improve the lives of people everywhere. Don't get me wrong: I'm a low-carb dieter myself, so I'm not slamming these diets. I'm working to educate people on how to make them healthier and more effective so they lose weight more quickly without exposing themselves to dangerous ingredients that I call metabolic disruptors.



## Why I'm So Inspired to Write About Chlorella & Spirulina

I'm also the editor of a variety of health websites, including [MadCowNews.org](http://MadCowNews.org) (which covers mad cow disease, of course), [FitnessHeadlines.com](http://FitnessHeadlines.com) (fitness & strength training news) and [HealthFactor.info](http://HealthFactor.info) (a site covering a wide variety of health topics). I've studied hundreds of books on health and nutrition, and I've invested over 4,000 hours in researching the links between foods and health.

I've also applied this information in my own life: I lost 50 pounds of body fat, took up strength training, shifted to a diet of 100% healthy, natural foods, and basically transformed my own health. So I'm not just a nutrition geek who writes about foods but doesn't have the experience it takes to really master the subject. I live this stuff.

Finally, I consume both chlorella and spirulina every day. I eat them as foods, not as vitamins, which means I actually "eat" this stuff. And my health has never been better. I use spirulina as my primary source of protein, since I rarely eat animal products, and I use chlorella for its astounding disease prevention and health enhancing properties, many of which I will share with you in this report. Both chlorella and spirulina are foods that I believe in and that I strongly recommend to friends, family members, and anyone who wants to get healthier.

Since I use so much of these superfoods, I've also ordered them from a long list of suppliers. I've tried every popular brand on the market. I've even examined them under a microscope to see what kind of quality they present up close. I know where to get the best prices, who has the fastest shipping, and which brands are inexcusably over-hyped (I'll help you steer clear of those). In other words, I'm a well-informed consumer because I buy and eat these products in large quantities.

On the credibility side, by the way, I don't sell any of these products. You won't find me pitching chlorella. I don't have any affiliate relationships with any of the suppliers I recommend here. I accept no advertising dollars from anyone. So this information is entirely unbiased. I give it to you straight, exactly as I see it.

With that out of the way, let's get down to business and take a closer look at these amazing superfoods. One of the first things people ask me about chlorella and spirulina is, "What are they made of anyway?"

## Where Do Chlorella & Spirulina Come From?

Both chlorella and spirulina are microscopic plants that grow in fresh water. They're actually called **micro-algae**, since they are microscopic forms of algae. (For those sticklers out there, I'm using the term "algae" to mean both "alga" and "algae" throughout this report, ignoring the proper conventions for this term.) And they've been around for quite some time: a few billion years, actually. These are some of the earliest and simplest life forms on the planet, appearing way before animals roamed these lands.

These micro-algae contain an astounding array of nutritional elements: vitamins, macrominerals, trace minerals, essential fatty acids, protein, nucleic acids (RNA and DNA), chlorophyll, and a vast spectrum of phytochemicals. They are thought to contain every nutrient required by the human body. Yes, you could literally live off these micro-algae. You wouldn't need to eat much, either, since they are so nutritionally dense.

The "micro" part of their name is no joke: these superfoods range in size from 2 to 8 microns, which is about the same size as a human blood cell. They appear green due to their chlorophyll content. Harvesting them requires special centrifuge equipment, which is one reason why individuals don't grow their own micro-algae for consumption. You have to get it from commercial processors who grow these superfoods in vast **water farms** located in regions of the world where the climate permits (the closer to the equator, the better, since there's more sunlight).

If chlorella and spirulina were sold with "Nutrition Facts" labels, those labels would be impressive indeed: zero refined carbohydrates, high in digestible protein, high in essential fatty acids, no "bad" fats, high in chlorophyll, and so on. I'll list some of the known properties below. But it's also important to recognize that much of the healing phytochemical content in these superfoods is simply unknown. Scientists haven't isolated and named all the nutrients found in these plants. So it doesn't render a complete picture to just list all the vitamins and minerals found in powdered chlorella, for example. The vitamins and minerals that we know of are not the only ones that matter.

For example, in the early 1900's, doctors thought there were only four vitamins needed by the human body. Now we know of over a hundred vitamins, minerals, amino acids, and other substances that are necessary for optimum health. In the years ahead, we'll certainly find even more. And when we do, chances will be that they are already found in micro-algae.



Of the nutritive substances we know about, however, here's what you find in chlorella and spirulina:

- High-quality complete protein that is more dense and more digestible than any animal-derived protein. (Chlorella is 58% protein.)
- All the known B vitamins, including vitamin B12 which is almost never found in plants.
- Vitamin C
- Vitamin E
- Macrominerals: calcium, magnesium, zinc, potassium and many more
- Trace minerals
- Omega-3 fatty acids including GLA
- Mucopolysaccharides
- Beta-carotene
- Nucleic acids (RNA & DNA)
- Chlorophyll

Looking at the nutrients it provides, a well-informed nutritionist can only stare in awe: these are many of the nutrients needed by every human body, in near-perfect ratios! It's almost as if Mother Nature herself reached down from the heavens and said, "Here's the perfect food for all human beings..." and gave us micro-algae. They're that impressive.

The only thing that's not impressive about these superfoods is their publicity: thanks to the fact that pharmaceutical companies can't profit from them, the true healing benefits of these superfoods are virtually unknown by Western medical professionals. As you'll see in the sections that follow, this is an extremely unfortunate situation, since the use of chlorella and spirulina in patients can not only prevent millions of cases of serious disease each year, it can actually reverse conditions like cancer. It can even be used as an adjunct "complementary" therapy to help those who choose the Western medicine route and allow themselves to be subjected to chemotherapy, for example. But before we get into the medicinal uses, let's take a look at how it is being used around the world right now.

## Are Chlorella & Spirulina the Answers to Global Malnutrition?

*The micro-algae have been a relatively new source of nutrition in the mainstream of industrial civilization during the last thirty years, although they have been used by certain traditional peoples in Latin America, Africa, and elsewhere for millennia. They will become increasingly important throughout the planet if other food supplies dwindle. Already spirulina cultivation projects are underway in various parts of the world, particularly where there is malnutrition.*

### - Healing With Whole Foods by Paul Pitchford

Spirulina is more than just a superfood to help people prevent and reverse disease: it's an answer to global malnutrition and food shortages. It can be grown in hot, sunny climates, which is exactly where much of the current malnutrition exists. It reportedly produces twenty times as much protein as soybeans when grown on equal-sized areas. And since soybeans already produce ten times as much protein as cows on a patch of land, it's easy to do the math and conclude that spirulina produces two hundred times as much usable protein as cattle ranching, acre per acre.

That's a profound comparison, especially when considering the continued rise in the global population and vanishing land resources. If we want to feed ourselves and our neighbors in the coming years, spirulina may be one of the most viable ways to do it.

Most people in developed countries like the United States are also malnourished, although you wouldn't know it from looking solely at the rising rates of obesity. Although we tend to have far too much body fat, we also suffer from alarming nutritional deficiencies. Nearly all Americans are deficient in magnesium, zinc, calcium, the B vitamins, and omega-3 fatty acids. Worse yet, few people in developed countries intake adequate daily levels of phytochemicals (like chlorophyll) that demonstrate remarkable healing abilities such as destroying cancer tumors, rebuilding damaged nerve tissue, enhancing brain function, and so on.

In this way, most Americans are, themselves, quite malnourished, even as they suffer from being overweight. That weight has come primarily from consuming massive quantities of refined carbohydrates that lack any notable nutritional content. That's how this seeming contradiction exists: we are overfed, but undernourished.

That's why getting chlorella and spirulina into the diet can have such astonishing health benefits! It's like delivering a windfall of nutrition that the body has been craving for years. Let's take a closer look at how chlorella and spirulina actually transform your health.

## The Astounding Health Benefits of Chlorella & Spirulina

What can these two superfoods really do for your health? They offer a stunning array of health benefits. Chlorella and spirulina have been shown to be effective in treating and even reversing the following conditions:

- Cancers (all types)
- Obesity
- Diabetes
- Hypoglycemia
- Arthritis
- Depression
- Severe liver damage and liver disorders
- Intestinal ulcers
- Hemorrhoids
- Asthma
- High blood pressure
- Constipation
- Bleeding gums
- Infections
- Inflammation of joints and tissues
- Body odor / breath odor
- Various degenerative diseases
- Essential fatty acid deficiencies
- Mineral deficiencies (magnesium is a common deficiency)

### Both chlorella and spirulina are particularly useful for:

- People with poor digestion and assimilation (these micro-algae are easy to digest and absorb)
- People with poor vitality and anemia
- Individuals who consumer large quantities of animal protein (the micro-algae protein, in contrast, is easier to digest and offers a far healthier balance of minerals)
- People who eat refined or processed foods
- People who take prescription drugs (spirulina protects the kidneys and liver)
- People who are overweight or obese
- People who engage in physical exercise and / or strength training
- People with low energy levels (feeling depleted, exhausted, etc.)

In fact, both chlorella and spirulina have been described as "the perfect food:"

**Chlorella:**

*Chlorella has been touted as the perfect whole food. Aside from being a complete protein and containing all the B vitamins, vitamin C, vitamin E, and the major minerals (with zinc and iron in amounts large enough to be considered supplementary), it has been found to improve the immune system, improve digestion, detoxify the body, accelerate healing, protect against radiation, aid in the prevention of degenerative diseases, help in treatment of Candida albicans, relieve arthritis pain and, because of its nutritional content, aid in the success of numerous weight loss programs.*

**- Earl Mindell's Vitamin Bible**

**Spirulina:**

*Spirulina's predigested protein provides building material soon after ingestion, without the energy-draining side effects of meat protein; its mucopolysaccharides relax and strengthen connective tissue while reducing the possibility of inflammation; its simple carbohydrates yield immediate yet sustained energy; its GLA fatty acids improve hormonal balance; and its protein-bonded vitamins and minerals, as found in all whole foods, assimilate better than the synthetic variety. Spirulina can generally be considered an appropriate food for those who exercise vigorously, as evidenced by the many world-class athletes who use it.*

**- Healing With Whole Foods by Paul Pitchford**

Chlorella and spirulina have such strong health benefits that even well-known doctors and authors use these products and note their benefits:

*It is possible that the GLA found in spirulina and possibly these other products accounts for some of the positive effects that people experience when using them, including decreased appetite, weight loss, and improved energy levels, especially mental energy. I personally have used all of these products and must say I have experienced a subtle increase in mental clarity and alertness (not like a nervous, caffeine-type stimulation). These algae must subtly stimulate our nervous systems or release certain internal neurochemicals that create this "up" feeling.*

**- Staying Healthy With Nutrition by Elson Haas, M.D.**

In all, these two superfoods are effective in not just reversing a long list of serious diseases (discuss in far more detail below), they are powerful health enhancers that demonstrate phenomenal benefits even to people who are in "good" health!

## The Treasure Inside: Chlorella & Spirulina

Both chlorella and spirulina are packed with nutrients and phytochemicals that boost health and fight disease. In this section, we'll take a closer look at their major nutritional components and see just what these superfoods have to offer.

*Chlorella is a tiny, single-celled water-grown alga containing a nucleus and an enormous amount of readily available chlorophyll. It also contains protein (approximately 58 percent), carbohydrates, all of the B vitamins, vitamins C and E, amino acids, and rare trace minerals. In fact, it is virtually a **complete food**. It contains more vitamin B12 than liver does, plus a considerable amount of beta-carotene.*

**- A-to-Z Guide To Supplements, James F. Balch M.D.**

### Protein

Spirulina is simply the world's most digestible natural source of high quality protein, far surpassing the protein bioavailability of even beef (which most people consider to be the #1 source of protein). The digestive absorption of each gram of protein in spirulina is four times greater than the same gram of protein in beef. And since spirulina already contains three times more protein (by weight) to begin with, the net result is that, ounce for ounce, spirulina offers twelve times more digestible protein than beef. That's an astounding difference. It means that spirulina is the ideal food source for people working to get more protein into their diets:

- People on low-carb, high-protein diets like the Atkins Diet or the South Beach Diet.
- People who exercise vigorously or engage in strength training.
- People who are frail, who have trouble gaining weight, or who are malnourished.

In fact, there's probably no better single food source on the planet than spirulina for these people. The protein found in spirulina is also a complete protein, meaning that it contains all eight essential amino acids, unlike beans, whole grains and other plant-based foods that typically lack one or more amino acids.

Personally, I've found spirulina to be the perfect replacement for meat in my own diet. For a variety of reasons that I don't have the space to write about here, I prefer to avoid animal meats in my diet. But tofu and soy products have never given me the "fullness" feeling of animal proteins. Spirulina is the only plant I've ever found that gives me as much protein as eating animal products. And I only need a few grams of spirulina to get the job done: I frequently take 5 grams with each meal, and I find it does the job of eating an entire serving of animal meat.

When it comes to protein, the bottom line is that spirulina is the world's best source for it. You can't grill it like a steak, but if you really want the best protein nutrition you can get, spirulina can't be beat.

## The Vitamin & Mineral Content of Chlorella & Spirulina

I've already mentioned many of the vitamins found in these micro-algae: all of the B vitamins, Vitamin C, Vitamin E, provitamin A, and so on. But what's important about these vitamins isn't just that they are present: it's the fact that they are found in their natural forms in these micro-algae.

In other words, if you take "bulk" vitamin supplements, you are often taking synthetic vitamins that have been manufactured in a chemical plant from ingredients that you'd never normally eat. These synthetic vitamins may be molecularly similar to the vitamins found in plants, but clinical trial show that they aren't the same in effect. There's something almost magical about vitamins found in plants: they're simply more healthful, more absorbable, and more effective at getting the job done.

That's why I never recommend people take isolated vitamins in pill form. There's simply no need to. The best way to take vitamins is to eat vitamin-rich superfoods like chlorella and spirulina. In this way, you get all the vitamins you need, in the proper natural form that the human body was meant to digest.

And you don't have to worry about dosages, either. If you take both chlorella and spirulina, you automatically get near-perfect ratios of the most important vitamins and nutrients your body needs. That's one reason why these superfoods are called "perfect foods." In fact, you can eat these in large quantities without any worry of overdosing on individual vitamins. Whatever vitamin you need: C, E, B, A, and so on, chances are that it's found in either chlorella or spirulina.

### Minerals

Virtually all Americans are deficient in certain minerals like magnesium and zinc. That's because all refined foods have had their mineral content stripped. When a food processing plant refines wheat berries to make white flour, it removes as much as 98% of some minerals. The resulting powdery substance -- white flour -- is technically unfit for human consumption because it is nutritionally deficient and simply cannot sustain human life. That's why they have to "enrich" these flours: by law, certain vitamins have to be put back in just to prevent the more obvious nutritional deficiency diseases like beriberi and ricketts!

By eating these processed foods, and by not getting enough "natural" foods like chlorella and spirulina, most Americans simply don't get enough magnesium and zinc in their diets, not to mention trace minerals and other macrominerals. Worse, yet, virtually all low-carb dieters are calcium deficient due to the high acidity of their diets and their near-complete lack of dietary magnesium thanks to eating animal meats and dairy products. Although they are technically eating moderate amounts of calcium found in meats and dairy products, their bodies can't use it because they don't have the magnesium and Vitamin D necessary to turn calcium into strong bones.

What all these people have in common is a serious need for mineral balance in their bodies. They need more magnesium, more zinc, more trace minerals, and better sources of potassium and calcium, just to name a few. Truly, this need is present across the board. Hardly a person can be found who isn't deficient in one or more of these minerals.

With chlorella and spirulina, however, you can reverse your mineral deficiencies because these superfoods are rich in minerals! An ounce of chlorella, for example, contains far more calcium than an ounce of milk. So much for the “milk builds strong bones” hype: chlorella’s calcium and magnesium content far surpasses milk in building strong bones.

Many people, in trying to deal with calcium deficiencies, take calcium supplements containing calcium carbonate. That’s made primarily from ground up seashells, and this brings up a question: do people really need to be eating ground up seashells? Of course not. The idea of eating seashells is absurd, yet that’s exactly what people are doing when they take common calcium supplements. Sure, you’re “taking” the calcium, but are you absorbing it? Probably not.

Similarly, many people take coral calcium supplements, which are made from ground up coral reefs instead of ground up seashells. Once again, it’s probably better than taking nothing at all, but were human beings really meant to eat coral reefs? Of course not! Scuba divers like to observe coral reefs, but you never find them chewing on reefs. This is not a food source intended for human beings. In fact, no animal on planet Earth eats coral reefs!

Plants, on the other hand, are fully intended for human consumption. The human digestive system reveals this truth in rather obvious ways, such as the need for dietary fiber in order to support healthy bowel movements, not to mention the existence of certain vegetable-grinding instruments found in the mouths of every human being: they’re known as “molar teeth.” Clearly, our bodies were designed to chew vegetables, not seashells or coral reefs. Not surprisingly, then, it’s plants that offer the healthiest sources of the vitamins and minerals our bodies really need -- in the form we need. Put simply, the minerals in micro-algae are easily absorbable by the human body. If you experienced some health benefits from taking coral calcium, you’ll be stunned at the much stronger benefits from consuming micro-algae.

*The plants richest in chlorophyll—the micro-algae and cereal grasses—were cited earlier as good sources of magnesium. Green plants also have the **greatest concentration of calcium of any food**; because of their magnesium, chlorophyll, and other calcium cofactors, increasing the consumption of green plants often is a **simple solution to calcium problems**.*

**- Healing With Whole Foods by Paul Pitchford**



## The Essential Fatty Acids Found in Chlorella & Spirulina

Essential Fatty Acids (EFAs) are the “good” fats you’ve been increasingly hearing about in recent years. Your body can’t live without them. They’re needed for a healthy heart, a healthy nervous system, and especially a healthy brain (the human brain is around 80% fat).

You’ve no doubt heard about omega-3 EFAs. Perhaps you’ve also heard of GLA (gamma-linolenic acid, found in borage oil) and DHA (docosahexaenoic acid, found in many fish oils). If you’ve read anything about low-carb dieting or the “Mediterranean Diet,” you know that the consumption of these healthy oils, from sources such as flax oil, produces astounding health benefits in the human body. Heart disease and various cardiovascular disorders respond quickly and positively. Brain function is improved, diabetes is brought under control, blood sugar is regulated, and cancer risk soon plummets.

Most of us think of these oils coming from fish or seeds. That’s why I was pleasantly surprised to learn that chlorella and spirulina contain these essential fatty acids! I was stunned to learn that Spirulina contains a sizable dose of GLA and omega-3 fatty acids. It is especially high in GLA, which is something that is almost universally lacking in the American diet.

Human breast milk is high in GLA, probably due to the infant child’s need for brain-building fats. And since many infants never gained the important nutritional benefits of their mothers’ milk, they’ve been GLA-deficient for their entire lives. The American diet of processed foods contains virtually no GLA whatsoever. And low-carb dieters aren’t getting any either, unless they specifically supplement it. But you can get it from spirulina:

*The richest whole-food sources of GLA are mother’s milk, spirulina micro-algae, and the seeds of borage, black currant, and evening primrose. GLA is important for growth and development, and is found most abundantly in mother’s milk; **spirulina is the next-highest whole-food source**. We often recommend spirulina for people who were never breast-fed, in order to foster the hormonal and mental development that may never have occurred because of lack of proper nutrition in infancy. The dosage is the amount of oil that provides 150-350 mg GLA daily. A standard 10-gram dosage of spirulina provides 131 mg of GLA.*

### - Healing With Whole Foods by Paul Pitchford

I’d like to note the last sentence of the quote mentioned above: a standard 10-gram dosage of spirulina provides 131mg of GLA. This is important to understand, because almost everyone who takes spirulina or chlorella takes far too little to be effective. They frequently make the mistake of thinking these superfoods are medicines or drugs, and they take one or two tablets at a time. That provides only one gram of spirulina, which is 1/10th the recommended standard dosage. You can’t get much benefit from just one gram. These superfoods aren’t drugs. They aren’t medications. They are foods. You can eat them like you eat a salad or a steak. You can eat a hundred grams a day and be all the better for it.

I discuss this in more detail in a later section, but the important point here is that most people take far too little to be of much help! If you really want to get well on these superfoods, you’ve got to take large quantities. These are foods, remember, not pills. As I mentioned earlier, I take 5 grams at each meal, and even that dose is considered only half of a “standard” dosage.

## The Astounding Chlorophyll Content of Chlorella & Spirulina

Chlorella is the richest source of chlorophyll on planet Earth. What's so good about chlorophyll? There's nothing more cleansing and detoxifying than chlorophyll. And people who follow Western diets (high in processed foods and animal foods) are in desperate need of cleansing and detoxifying.

Here's something interesting: chlorophyll actually helps remove heavy metals from your body that have accumulated due to the ingestion of contaminated food products. Certain sea foods are especially known to contain dangerous levels of heavy metals like mercury, but these contaminants are also found in animal products and even non-organic crops. If you've been eating refined foods, you undoubtedly have mercury, cadmium, arsenic, lead, PCBs and other contaminants in your body. The chlorophyll in chlorella actually helps remove those heavy metals from your body, which can have seemingly miraculous benefits to your health.

Another common source for contaminants is mercury fillings used by dentists. They call them "silver fillings," actually, since they don't want to openly admit they're still putting mercury -- one of the most potent nerve toxins on the planet -- into the mouths of patients. These mercury fillings emit a steady stream of mercury vapor that gets absorbed into your body. Frequently, small bits of these mercury fillings crack, break off, and are swallowed with your food. In this way, nearly all dental patients in America and other "civilized" countries are subjected to routine mercury poisoning at the hands of their dentists.

Chlorella can help protect you against this mercury by escorting the mercury out of your body before it can do damage. If you take chlorella before and after receiving dental work, you will help protect yourself from the toxic effects of mercury fillings. This is especially important if you decide to have your mercury fillings removed, as more and more people are doing. The very process of drilling them out results in a tidal wave of mercury exposure in your body. Having a stomach full of chlorella offers considerable protection against the mercury bits you inevitably swallow during this procedure.

I underwent a full-scale mercury filling removal program myself. It required nearly ten sessions in the chair, and I used chlorella each time. As a result, I suffered no ill effects from the mercury removal. Today, my mouth is 100% free of mercury, and the chlorella that I continue to take on a daily basis protects me from dietary mercury that might find its way to my dinner plate.

Chlorophyll does much more than protect you from mercury, however: it's also a general detoxifier that supports liver function so that your liver can do a better job of eliminating toxins from your system.

## Chlorella vs. Spirulina

In this section, I've talked about chlorella and spirulina as if they were twins. But they aren't: each has a unique nutritional profile. Although I strongly recommend using them both as part of every meal (I do), you may find yourself needing one or the other based on certain circumstances. So here's the score:

### Chlorella:

- A better source of chlorophyll, which makes it more detoxifying and cleansing.
- It is especially good for people with liver disorders or people who drink or smoke.
- It is very helpful for people with dry stools who suffer from constipation.
- It is especially good for people who need "rebuilding" -- people who suffer from degenerative diseases (muscle, nervous system, etc.) or people who are frail.
- Contains Chlorella Growth Factor (CGF), which boosts the immune system, reverses cancer, and offers other health benefits.
- CGF also helps repair nerve tissues throughout the body and is excellent for treating degenerative brain and nerve disorders.

### Spirulina:

- A superior source of digestible protein. Contains 12 times the protein of beef.
- Easier on the digestive system than chlorella, which can cause diarrhea in sensitive individuals.
- The best source of gamma-linolenic acid (GLA), a "good" fat necessary for the human brain, proper heart function, and other body systems.
- Contains phycocyanin, a potent anti-cancer phytochemical that also gives spirulina its characteristic blue hue.

As you can see, both chlorella and spirulina offer a vast range of health benefits, and many of their strengths overlap. That's why I generally recommend that people consume both in substantial quantities. As a general rule, you should consume spirulina and chlorella in a 2:1 ratio. In other words, if you take 10 grams of spirulina a day, take 5 grams of chlorella, too.

If you are suffering from a particular health condition, increase your consumption of the micro-algae best suited for that condition. These health conditions are discussed in more detail below. Recommended dosages of chlorella and spirulina are also covered in more detail in the "how to take chlorella and spirulina" section later in this guide.

Now we'll take a look at the use of chlorella and spirulina for specific health conditions and dietary patterns.

## Chlorella & Spirulina for People on Any Low-Carb Diet

As hinted earlier, high-protein (low-carb) dieters have a special need for chlorella and spirulina. This is primarily due to the fact that the way most people follow low-carb diets is nutritionally imbalanced (low-carb dieting in theory isn't imbalanced, but the way most people follow it certainly is). Most followers of low-carb diets lack sufficient intake of specific vitamins, minerals, and phytochemicals necessary for optimum human health.

The vast majority of low-carb dieters are deficient in calcium, magnesium and zinc, for example. Both chlorella and spirulina offer naturally balanced minerals that help bring a low-carb diet back into the proper mineral ratios.

Low-carb diets also tend to be highly acidic, thanks to the heavy reliance on acidic foods like animal proteins and even diet soft drinks. These acidic foods are effectively countered by the alkaline nature of chlorella and spirulina. In other words, these micro-algae help support the healthy pH balance of the body, which protects against loss of bone mass while giving the kidneys a much-needed rest.

High-protein diets are typically lacking in the B vitamins, as well. Micro-algae supply all the B vitamins, bringing the body back into balance with this all-important category of nutrition. The B vitamins are critical for proper immune system function, hormone balance, brain function, and literally thousands of biochemical processes that support the body.

Essentially, micro-algae help correct virtually every nutritional deficiency brought on by high-protein / low-carb diets. People pursuing high-protein diets need to seriously assess their intake of vital nutrients and, very likely, supplement with large quantities of chlorella and spirulina. I'm a high-protein / low-carb dieter myself, and that's exactly what I do. I consume large quantities of proteins and fiber-rich foods during the day (like broccoli and other vegetables). But I also know that these foods, as healthy as they are, can't supply the nutrient density of micro-algae, so I supplement both spirulina and chlorella at virtually every meal.

Also, unlike most high-protein dieters, I choose not to consume large quantities of animal products. I do eat a considerable quantity of eggs, but very little meat. Instead, I rely on spirulina for my dietary protein. (And I've put on 15 pounds of lean body mass doing so, too, so don't let anyone tell you that you can't build muscle by eating plants.)

*High-protein diets have been (and sometimes still are) considered a cure for hypoglycemia, because protein digests slowly, supplies energy gradually, and does not trigger excess insulin production. But a high-protein diet causes other serious problems, as we have seen earlier in the Protein and Vitamin B and Calcium chapters. The high-protein foods that seem to work best over time are the chlorophyll-rich types recommended in diabetes—spirulina, chlorella, wild blue-green, and cereal-grass products.*

**- Healing With Whole Foods by Paul Pitchford**

## Chlorella & Spirulina for Weight Loss & Dieting

In various clinical studies, micro-algae have been shown to be remarkably effective for weight loss. There are primarily two reasons for this: the correction of nutritional deficiencies, and the addition of GLA to the diet.

On the nutritional deficiencies topic, obesity is the result of not only the over-consumption of calories, but more importantly, a dysfunctional endocrine system that results in the excess secretion of insulin and, subsequently, intense cravings for refined foods. That's why people get overweight even when they don't want to: the cravings are simply too strong to ignore.

By supplying the body with the nutrients it needs, however, those cravings can be dramatically reduced and the endocrine system can be brought back into a state of balance. These nutrients are best provided by chlorella and spirulina. That's how these superfoods help people lose weight.

Of course, true weight loss won't occur from simply consuming these superfoods: they only create the proper environment for weight loss. The person must still alter their diet by removing refined foods, hydrogenated oils, all sugars, and other weight-promoting substances. Without that step, the weight will never come off. Just as importantly, a person who doesn't take up a habit of regular physical exercise will rarely lose body fat, no matter what their diet.

The second factor in micro-algae that supports weight loss is the presence of GLA in spirulina. This essential fatty acid helps regulate blood sugar and control insulin, which naturally leads to reduced carbohydrate binging. And spirulina is the richest natural source of GLA on planet Earth. There's simply no better way to get GLA into your diet than making spirulina part of your daily diet.

Clearly, both chlorella and spirulina should be supplemented as part of the nutritional approach to any weight loss effort. They can greatly reduce cravings, provide much-needed nutrition to the body, and serve as outstanding sources for obesity-busting substances like GLA. But they can't get up and do your exercises for you.

## Chlorella & Spirulina for Vitality & Intestinal Health

Both chlorella and spirulina have been shown to be quite effective for people suffering from anemia (blood deficiencies), poor spleen function, weak digestive absorption, and other similar “lack of vitality” disorders.

If you or someone you know is anemic, has low blood pressure, suffers from dizziness, or shows obvious signs of lack of vitality (such as having infrequent bowel movements), then chlorella is something that I strongly recommend be considered. Over time, most people find that chlorella builds vitality, improves digestion, enhances energy, improves mental clarity, and basically helps people regain their youthful energy and start rebuilding the strength of organs and tissues.

### Chlorella & Spirulina for Intestinal Health

The subject of intestinal health deserves an entire book, probably. The vast majority of people on the Western diet (high in refined foods, low in fiber, low in natural vitamins, high in animal protein, high in dairy products, high in sugars) suffer from dismal bowel function. Irritable Bowel Syndrome, Crohn’s Disease, constipation, frequent diarrhea -- these are all obvious symptoms of dietary imbalances. There’s nothing wrong with your colon! It’s merely the food you’re eating that causes these effects.

Spirulina and chlorella offer considerable help in the area of intestinal health, and perhaps not in the ways you might suspect. What they do best is support healthy intestinal flora -- the “friendly” bacteria in your digestive tract that protect you from disease and aid in digestion. This ability is thought to be provided by the mucopolysaccharides found in spirulina:

*Another possible way to improve the conditions in the intestine is by the consumption of spirulina. While no human studies appear to have been published, intriguing veterinary research has shown that providing horses with spirulina stimulates the growth of Lactobacillus in the cecum. The researchers suggest that this may be due to the **mucopolysaccharides in spirulina***

**- Textbook of Natural Medicine by Michael T. Murray N.D.**

I've seen what chlorella can do, too, in people I've urged to try it. One person who suffered from chronic constipation (one bowel movement every three days, if you can believe that!) slowly improved until she was having one every day. This was due to chlorella only, with no other dietary changes.

People with Crohn's Disease, diarrhea or IBS, however, should be extremely careful with chlorella, since it can actually promote diarrhea in some people. In these cases, stick to spirulina at first, and then slowly introduce chlorella as the digestive system tolerates it. A simple way to look at it is to say that chlorella makes the stools "wetter." If your stools are already too wet, chlorella should be introduced very slowly to avoid worsening your condition.

*Chlorella is a whole food rich in many phytochemicals, some of which have been identified but many of which are still unknown. A group of elements referred to as chlorella growth factor, or CGF, are believed to be one group of compounds in chlorella that give it its health-promoting ability. Chlorella stimulates the growth of friendly bacteria, which in turn has the probiotic effect of strengthening gut flora and resisting disease.*

**- Herbal Medicine, Healing & Cancer by Donald R. Yance**

## Chlorella & Spirulina for Nervous System Disorders

*CGF makes chlorella most useful for improving growth patterns in children, maintaining health in old age, healing injuries, and initiating growth where it has been stunted from disease or degeneration, including **Alzheimer's disease, sciatica, palsy, seizures, multiple sclerosis, nervousness, and other nerve disorders.***

**- Healing With Whole Foods by Paul Pitchford**

This is one of the most remarkable healing properties yet recorded for chlorella: its ability to actually repair nerve tissues throughout the body. People suffering from degenerative nerve disorders typically report positive results from using chlorella. This is because CGF (chlorella growth factor), which is found in the nucleus of the chlorella cell, actually promotes the body's innate healing ability to grow and repair nerve tissue.

It's unfortunate that more research isn't available in this area, because I think this represents an exciting and promising area of nutritional research. If a phytochemical found in this billion-year-old plant can actually help human beings repair nerve tissue, what extraordinary uses might it be put towards? Could it help people with spinal cord injuries? Could it help stroke victims? Could it actually prevent Alzheimer's Disease in patients with high risk?



Unfortunately, these questions have not been answered, and since nobody can patent chlorella, it's unlikely that any drug company is interested in sponsoring the necessary research to answer these questions. After all, consumers can buy chlorella anywhere. Drug companies have no way to control the market and, therefore, no way to profit from chlorella.

For now, the best we can go on is the anecdotal evidence, which is actually quite substantial. It may hold tremendous promise in treating the mental disorders now ravaging modern society:

*In the developed countries where nutrient starvation takes place as a result of excessive refined food, intoxicants, and a glut of animal products, micro-algae such as spirulina, wild blue-green (Aphanizomenon flos-aquae), and chlorella, used in conjunction with unrefined vegetable foods, are helpful in healing the many prevalent disorders of the nerves and brain.*

- Healing With Whole Foods by Paul Pitchford

### Chlorella & Spirulina for Appetite Suppression & Reducing Cravings

Both spirulina and chlorella are known to reduce the craving for sweets and carbohydrates. What is unknown, however, is the mechanism by which this appetite suppression works.

As you may know, I've engaged in a considerable amount of nutritional research over the years (surpassing 4,000 hours so far). Here's my educated guess at the factors at work here:

**Magnesium Content:** These micro-algae contain high levels of magnesium and other minerals that are frequently deficient in modern diets. Magnesium deficiency is known to produce intense cravings, especially for chocolate sweets (which contain magnesium). By eating micro-algae, the body is supplied with magnesium, and so the cry to "feed me magnesium" is silenced.

**Protein Content:** The protein content of these micro-algae (especially spirulina) provides for steady levels of blood sugar that counteract any tendency for a hypoglycemic response, which would of course induce severe cravings for sweets. In other words, the high quality protein in these superfoods blocks the hypoglycemic appetite response.

**Oil Content:** The healthy oils found in these micro-algae, especially spirulina, promote steady blood sugar levels through their slow digestion, as with any oil. GLA, in particular, helps regulate the insulin response of the pancreas, and therefore eliminates the primary cause of sugar cravings even before they can occur!

**Vitamins:** Some part of the cravings experienced by people consuming a modern "Western" diet are due, I believe, to deficiencies in the B vitamins. Without adequate supplies of these vitamins in their natural form, the body's hormonal signals get distorted, and the body orders the person to keep eating. What the body really craves, most likely, is adequate nutrition, not empty calories. Once this nutrition is supplied by the micro-algae, the body's hunger signals quiet down.

If you begin supplements with these micro-algae, keep in mind that the appetite suppressing effects of chlorella and spirulina will take time to be noticed, of course. Don't expect to take chlorella for one day and suddenly stop all your cravings. It may take weeks or months for your body to adapt and adjust to your new nutritional habits. Hormonal changes, especially, take considerable time, since your body is probably in "the habit" of releasing excess insulin in response to the refined foods you've been consuming.

That brings up another point: a few grams of chlorella or spirulina can't counteract hundreds of grams of white flour, corn syrup, soft drinks, cookies and breads. While micro-algae can certainly help, the fact is that you probably won't eliminate your intense carbohydrate cravings until you manage to remove those carbohydrates from your diet in the first place. Chlorella and spirulina can help you in that decision, but they can't override a tidal wave of poor nutritional choices.

### Chlorella & Spirulina for Enhancing Brain Function

An interesting study published in 1995 (Author: Sevulla) that showed an 81% improvement in the academic scores of children who took one gram of spirulina daily for six months.

I'm not aware of other studies examining the link between micro-algae and intellectual function, but this study alone is interesting enough to warrant a closer look. An 81% improvement is dramatic, to say the least. And the dosage of spirulina used -- a mere one gram -- is only 1/10th the recommended standard dosage. What results could the standard dosage achieve?

The mechanism of such dramatic improvements in brain function are very likely due to the presence of both GLA and **phycocyanin** (a blue pigment) in spirulina.

Phycocyanin is known to enhance the functioning of the brain and nervous system. Furthermore, the presence of this pigment in plants and foods is extremely rare:

*Important to note in the area of prevention, spirulina is richly supplied with the blue pigment phycocyanin, a biliprotein which has been shown to inhibit cancer-colony formation. Predominant blue pigmentation in food is rare. The chemical reality of spirulina's blue color is demonstrated by its effect in the brain. Here phycocyanin helps draw together amino acids for **neurotransmitter formation**, which **increases mental capacity**.*

#### - Healing With Whole Foods by Paul Pitchford

Certainly the GLA content of spirulina is another important factor. As I mentioned previously, the human brain is around 80% fat. Nerve tissues in the brain need "healthy" fats in order to function properly, and GLA is one of the healthiest fats you can consume. That's why human breast milk contains high quantities of GLA. In fact, breast milk is the #1 source of GLA on the planet, and spirulina is #2.

Breast milk contains GLA because infant humans need to quickly build brain mass in order to boost their chances of survival. A bigger, better brain allows a child to more quickly comprehend language, social interactions, environmental cues, interpret sensory input, and so on. So mother's milk provides precisely the nutrients needed by infants to help them survive.

Cow's milk, on the other hand, is designed to help baby cows survive. That has a lot less to do with brain function and a lot more to do with helping grow a baby cow to several hundred pounds and enabling it to run more quickly. Cow's milk, not surprisingly, has virtually no GLA. Baby cow brains simply aren't as important to their survival as the brains of human infants.

(That's also one reason why cow's milk is a terrible nutritional choice for baby humans. Cow's milk is the perfect food for baby cows, but a gross mismatch for the nutritional needs of baby humans. Even worse, the fact that adult human beings consume the mother's milk of another species is truly bizarre. No other organism on the planet consumes the milk of another species, and every animal on the planet except humans "weans" itself off of mother's milk. When I see adult humans drinking cow's milk, I always ask them why they're drinking baby food.)

Getting back to the brain food topic, the GLA content of spirulina combined with the CGF content of chlorella (which repairs nerve tissues, remember?) provides a compelling reason to consume both of these micro-algae. The GLA feeds your brain and nervous system with the nutrients it needs to be healthy, while the CGF repairs damaged nerve tissue. It's a powerful combination, and it's one reason why I recommend that people consume both chlorella and spirulina with each meal. They're simply more powerful when consumed in combination.

### Chlorella & Spirulina for Proper pH Balance

Most people consume diets that are far too acidic. Nearly all refined foods -- made with sugars, white flour, and other unwholesome ingredients -- are acidic in nature. Soft drinks and most processed fruit drinks are especially acidic. These acidic foods, when routinely ingested, create a pH imbalance in the human body.

pH balance is critical for human health. In fact, the pH of your blood must be kept as a precise level (around 7.2 on the pH scale). Consuming highly acidic foods and beverages causes an imbalance in the pH of the body, and so the body responds by countering the acidity with behavioral and biochemical strategies that eliminate these excess acids. There's a cost to all this, however, as you'll see below.

One such strategy for countering excess dietary acids is to increase respiration, since carbon dioxide is acidic and oxygen is alkaline. By breathing in more oxygen and exhaling more carbon dioxide, the body works to regulate its own pH. This is exactly why diabetics with high blood sugar are frequently seen to be hyperventilating: their blood is too acidic and their bodies are simply trying to get back to the proper pH balance.

Another strategy pursued by the body is to pull alkaline minerals out of the bones -- which are great stores of calcium and other alkaline minerals -- and use those minerals to counter the acidic foods and beverages that have been consumed. This is why the consumption of soft drinks is well known to cause the depletion of minerals from the body's bones, which results in loss of bone mass density and the onset of osteoporosis. The more soft drinks you consume, the weaker your bones get.

Micro-algae offer a convenient solution to the pH problems of most diets. Both chlorella and spirulina are alkaline foods, which means they counter the acidic foods and help raise the pH level towards the alkaline side of the scale. This, in turn, promotes increased bone mass (since your body doesn't have to sacrifice calcium to balance its pH), and vastly improved metabolic functions. Consuming more alkaline foods has been strongly linked with improved immune system function, mental function, kidney function, and higher levels of energy, among other important benefits.

Both chlorella and spirulina can be used as pH balancing foods. Of course, your best results will come when you add these superfoods to your diet and avoid consuming acidic foods and beverages like soft drinks.

High-protein / low-carb diets are also known to be highly acidic, since meat is squarely on the acidic scale. That's why some of the weight loss on a nutritionally poor low-carb diet actually results from loss of bone mass, not body fat! By replacing some meat with protein from spirulina, low-carb dieters can improve their overall pH balance while still getting their protein (and from a more nutritionally sound source, too).

### Chlorella & Spirulina for Preventing & Reversing Cancer

*Some micro-algae have very favorable nutritional profiles for cancer and immune therapies. Spirulina, chlorella, and wild blue-green provide cellular protection with exceptional amounts of beta carotene (provitamin A) and chlorophyll. Chlorella, the algae to emphasize in those with the greatest deficiency, stimulates immunity in the treatment of all degenerative diseases by means of the "Chlorella Growth Factor" (CGF). Spirulina is rich in phycocyanin, a pigment with anti-cancer properties. Spirulina is also the highest plant source of gamma-linolenic acid (GLA), a fatty acid which strengthens immunity and inhibits excessive cell division.*

#### - Healing With Whole Foods

As you can see from the quote above, the anti-cancer properties of both chlorella and spirulina are rather remarkable. Of the few key phytochemicals that have been identified in these micro-algae, their known anti-cancer properties are nothing less than astonishing. And yet these foods probably work on many levels to combat cancer, going far beyond the handful of phytochemicals that have been identified. Remember: chlorella and spirulina contain hundreds or thousands of phytochemicals, and very few of those have been identified or clinically tested.

Overall, however, micro-algae have been subjected to a fair amount of anti-cancer testing. The results of those tests have earned chlorella a rather impressive mention in the book **Herbal Medicine, Healing & Cancer** by Donald R. Yancey:

*Chlorella is a one-cell blue-green alga that is highly nutritive as a food and also **stimulates the immune system**. It increases macrophage activity and has shown **antitumor effects**. Chlorellan is a substance found in chlorella that **stimulates interferon production**. There are several papers on the prevention and/or **inhibition of cancer** using chlorella as well as documentation of its **DNA repair mechanism**. Of all the super green foods, chlorella is the one that impresses me the most.*

Chlorella's anti-cancer reputation is well, earned, too. Dozens of studies have shown it to exhibit truly miraculous anti-cancer effects. At risk of wearing out this metaphor, I have to say once again that if the pharmaceutical companies had a name-brand drug that demonstrated the same effects as chlorella, it would be heralded as a "cure for cancer" and would undoubtedly receive an endless parade of positive press on all the news networks. When it comes to cancer, chlorella is truly that good.

## More Studies Showing How Chlorella Prevents & Reverses Cancer

*There have been dozens of animal studies on chlorella and chlorella extracts involving immune response to cancer. One such study involved mice given chlorella prior to transplantation of mammary carcinoma. The results were a **70 percent sixty-day survival of the chlorella group versus no survival** in the control group. Mice in the control group were also transplanted with tumors but did not receive chlorella.*

*In 1990, a study on chlorella was performed at the Medical College of Virginia. Fifteen glioblastoma patients were administered 20 grams of powdered chlorella and 150 ml of liquid chlorella, in some cases combined with standard chemotherapy and/or radiation therapy. There was a **significant increase in health and immune status immediately**, and a striking **40 percent two-year survival rate** was reflected in follow-up studies. This is **extremely rare** for this type of tumor, which normally might yield a **10 percent survival rate** after two years.*

*There are other beneficial algae, such as spirulina, a blue-green alga, and other super green foods, but I believe **chlorella is the best**, particularly **for people with cancer** and/or a weak constitution.*

### - Healing With Whole Foods by Paul Pitchford

Note that in one of the studies mentioned above, chlorella was used in conjunction with chemotherapy and radiation therapy and still managed to achieve stunning improvements in the survival rates of cancer patients who would have normally died within two years. And note that the patients were administered a mere 20 grams of chlorella, which is a small dose. I eat half that much chlorella every day, so in a week's time, I'm eating perhaps 70 grams of chlorella, or more than three times the dose received by these cancer patients.

With this, I think you can begin to see the anti-cancer healing power of chlorella. Its results can only be described as stunning:

*Chlorella helps protect the body in its fight against both **viruses and cancer**. A series of studies during the 1980s showed that **tumor growth** in mice could be **reduced or stopped** by injecting a water solution of chlorella around the neoplastic growth. Even tumor regrowth was cut down significantly. In another study by the same researchers, **tumor cells were killed completely** by the chlorella injection. The researchers then began to give chlorella in oral form, and the antitumor effect was still significant.*

### - Herbal Medicine, Healing & Cancer by Donald R. Yance

I'm not sure if you share the same excitement about chlorella that I do, but if you take a closer look at the study mentioned above, it basically reveals a potential cure for cancer. Simply inject chlorella into the tumors, and they are "killed completely." The study, entitled, "*Augmentation of Antitumor Resistance by a Strain of Unicellular Green Algae, Chlorella Vulgaris*," was published in 1984 in **Cancer Immunology and Immunotherapy**.

With a finding this astounding, you would think that every doctor, medical researcher, and government health official would be intent on learning how to apply this knowledge to healing cancers all around the world. Chlorella is dirt-cheap from a medical point of view, and by simply injecting it into breast cancer tumors, those tumors are killed. But therein lies the problem: chlorella is dirt-cheap! There's no real money in chlorella injections, regardless of how well they work!

## Yet More Clinical Evidence That Chlorella Fights Cancer

Yet the anti-cancer properties of chlorella are hard to argue with. There have been a number of studies demonstrating similar anti-cancer properties for chlorella:

*A study on chlorella published in Japan in 1992 showed that chlorella has **impressive effects on blood chemistry**. It increased red blood cells, white blood cells, platelets, and albumin. The ability of chlorella to increase albumin is vitally important because so many people with cancer have a decreased level of albumin. This decreased level correlates with a poor prognosis; **chlorella is a truly important supplement** for anyone whose albumin level is low.*

- **Herbal Medicine, Healing & Cancer by Donald R. Yance**

The healing properties of these micro-algae are, of course, only available from the whole food, not isolated or extracted chemicals:

*Animal studies have shown that mixed carotenoids, such as Spirulina and Dunaliella species of algae, have **significantly greater tumor-killing ability** than beta-carotene alone. No antioxidant vitamin or flavonoid should be taken alone.*

- **Health And Nutrition Secrets by Russell Blaylock, M.D.**



One of those anti-cancer phytochemicals has been mentioned: **phycocyanin**. This phytochemical found in spirulina is what gives it a dark blue / green hue. It also probably contributes to the unique taste of spirulina, which some people find somewhat pleasant, or at least tolerable.

Interestingly, the pigmentation of phycocyanins makes them ideal for coloring foods, beverages and cosmetics. Instead of using artificial colors derived from coal tars, manufacturers can use plant-derived pigments to add color to their products. What they probably don't realize, however, is that by doing so, they are also adding anti-cancer properties to their products!

Here's an interesting web page on the use of phycocyanins for coloring:

<http://www.cftri.com/tech/phyco.html>

The name "phycocyanin," by the way, is revealing. The prefix "phy" means "from the plant kingdom" as in "phyto." The root of the word, "cyan," is the technical description of the color blue. So the word means "the blue element of the plant."

*Spirulina contains the blue pigment phycocyanin, a biliprotein that has been shown to inhibit cancer colony formation.*

#### **- Herbal Medicine, Healing & Cancer by Donald R. Yance**

This phycocyanin has been shown to be effective against liver cancer as well:

*Spirulina contains concentrations of nutrients unlike any other single grain, herb, or plant. It contains gamma-linolenic acid (GLA), linoleic and arachidonic acids, vitamin B12 (needed, especially by vegetarians, for healthy red blood cells), iron, a high level of protein (60 to 70 percent), essential amino acids, the nucleic acids RNA and DNA, chlorophyll, and phycocyanin, a blue pigment that is found only in blue-green algae and that has increased the survival rate of mice with liver cancer in laboratory experiments.*

#### **- A-to-Z Guide To Supplements by James F. Balch, M.D.**

In all, the anti-cancer properties of both chlorella and spirulina make these superfoods absolutely necessary dietary supplements for anyone battling cancer or who may be at risk for cancer. And if you eat processed foods or follow the standard American diet, you are definitely "at risk" for cancer, since so many of the foods that make up the American diet are, themselves, promoters of cancer.

Every doctor should be aware of the anti-cancer properties of chlorella and spirulina, and these superfoods should be "prescribed" as both cancer prevention foods and cancer therapy for patients currently battling the disease. In my opinion, any person suffering from cancer should immediately begin introducing both chlorella and spirulina into their diets, even if they choose to undergo "Western" anti-cancer procedures like chemotherapy and radiation.

Furthermore, any person who knows someone with cancer has, I believe, a social responsibility to at least make them aware of this information so that they can make their own informed decisions about how to reverse their cancer, if they so desire.



Chlorella is one of those things that falls into the “can’t hurt” category when it comes to battling cancer. No matter what form of therapy you choose to undergo -- radiation, chemotherapy, surgery, or something more holistic -- chlorella can only improve your results. If it were me, I would absolutely not undergo any radical therapy like radiation or chemotherapy. I would ingest large doses of chlorella at every meal and pursue other anti-cancer strategies that have been proven far more effective, such as taking graviola tincture, eating apricot kernels, consuming large quantities of raw broccoli sprouts, eating as much garlic as I could stand, and so on. There are many natural therapies that reverse cancer.

We have way too much cancer in the world, and the answer to many cancers is available right now in the form of these remarkable water plants. It is time that we put nature’s gift to work in healing diseases like cancer that are ravaging our population.

## How Chlorella & Spirulina Boost Immune System Function

Chlorella and spirulina exhibit impressive immune stimulating and boosting properties. As with the previously mentioned healing properties of these superfoods, their immune boosting powers are likely due to a variety of nutritional factors. Let’s examine these one at a time:

### Gamma Linolenic Acid

GLA is not only known for regulating blood sugar and providing important nutrients to the brain; it also exhibits immune-boosting properties. In fact, according to Dr. Hass, author of **Staying Health With Nutrition**, GLA has been shown to be effective for the following health conditions:

- Cardiovascular disease—anti-inflammatory effect; reducing platelet aggregation, thereby reducing clotting; lowering blood pressure by decreasing vessel tone; cholesterol-lowering effect.
- Arthritis (rheumatoid arthritis and other inflammatory disorders)—anti-inflammatory effect; immune support; correcting possible EFA and GLA deficiency.
- Skin disorders (eczema, acne, dermatitis)—anti-inflammatory effect; EFA functions; immune support.
- Allergies, asthma—anti-inflammatory effect; EFA function; immune support.
- Multiple sclerosis—nerve conduction; correction of possible EFA and GLA deficiency; immune support; decreased platelet aggregation; balancing prostaglandins.

Essentially, GLA helps support the immune system through a variety of mechanisms, and its benefits go far beyond mere immune system function. In fact, nearly 200 clinical studies on the health effects of GLA have been conducted, and they show stunning results for this beneficial oil:

*In the 1980s, GLA was studied more intensively than any other nutrient: About 200 clinical trials took place in university hospitals and medical schools throughout the world. Dr. Horrobin's clinical studies have led him to believe that a lack of essential fatty acids could turn out to be **one of the most common defects in human biochemistry and a significant factor in many diseases**. Essential fatty acids are especially important in the function of nerve, muscle, and **immune systems**, for when people lack the proper balance, the neurological, endocrine, and immune systems are shown to be adversely affected.*

*GLA has proven to be effective in the treatment of many serious diseases. Double-blind, placebo-controlled studies for atopic eczema demonstrate that GLA improves skin conditions, relieves itching, and reduces the amount of steroid medication required. In a large, placebo-controlled trial at Bristol University in England, both adults and children showed substantial improvements. In clinical trials for diabetes, **GLA has reversed neurological damage** and lowered plasma cholesterol and triglycerides. [GLA] has also been shown to be beneficial in the treatment of Sjogren's Syndrome.*

**- Innocent Casualties: The FDA's War Against Humanity by Elaine Feuer**

It is important to point out, however, that many of the studies conducted on GLA used evening primrose oil as their source for this essential fatty acid. Evening primrose oil offers a much higher concentration of this isolated nutrient than spirulina, of course, since spirulina is a whole food source containing a full spectrum of proteins, minerals, vitamins, oils, and other nutrients.

## The Magic of Polysaccharides Found in the Cell Wall of Chlorella

Chlorella has a unique cell wall structure that imparts additional immune-enhancing properties. The chlorella cell wall is made of complex polysaccharides, which have been shown to stimulate interferon production and exhibit strong anti-tumor activity. This was shown in a series of studies conducted primarily in Japan over the last several decades.

### Sources:

Komiyama, K. et al An acidic polysaccharide Chlon A from Chlorella pyrenoidosa. (Antitumor activity and immunological response.) Research at: The Kitasato Institute, Japan

Kojima, M. et al A Chlorella polysaccharide as a factor stimulating RES activity. Dept. of Pathology, Fukushima Medical College, Fukushima City, Japan. Journal of the Reticuloendothelial Society 14: pp 192-208, 1973

Kojima, M. et al A new Chlorella polysaccharide and its accelerating effect on the phago-cytic activity of the reticuloendothelial system. Paper delivered at: Symposium II: Phagocytic Activity of RES, Dept. of Pathology, Fukushima Medical College, Fukushima City, Japan

White, R. and Barber, G. An acidic polysaccharide from the cell wall of Chlorella pyrenoidosa. Research at: Dept. of Biochemistry, Ohio State Univ. 484 W. 12 Ave., Columbia, OH 43210

These studies showed that the outer wall of the chlorella cell also contains compounds that protect the body from cancer-promoting mutations while enhancing overall immunity.

## Chlorella Growth Factor (CGF)

Chlorella is, of course, the only source for CGF, which demonstrates yet more remarkable healing properties:

*Chlorella Growth Factor promotes normal growth but does not stimulate the growth of disease processes such as tumors. Because its chlorophyll content is one of the highest of any food, chlorella is useful for the many conditions which benefit from chlorophyll's purification, renewal, and anti-inflammatory properties. Treatment of viruses and fungi which sap energy, such as candida-overgrowth, Epstein-Barr virus, chronic fatigue immune deficiency syndrome (CFIDS), and AIDS, is advanced by the **immune-enhancing qualities of CGF** as well as the **antiviral effect of chlorophyll**.*

- Healing With Whole Foods by Paul Pitchford

### Chlorellan

Another immune-boosting substance found in chlorella is called **chlorellan**. It, too, has been clinically shown to enhance immune system function:

*Chlorella has been shown to **improve immune function** in people undergoing chemotherapy and/or radiation therapy. Chlorella increases macrophage activity, activates both T-cells and B-cells, and has shown antitumor effects. In addition, **chlorellan**, a substance found in chlorella, **stimulates interferon production**.*

- Herbal Medicine, Healing & Cancer by Donald R. Yance

### RNA / DNA

There's yet another immune-boosting element that's unique to chlorella: nucleic acids, found in RNA and DNA. These nucleic acids are critical for health and longevity:

*The nucleic acid in the human body (RNA/DNA) is responsible for directing **cellular renewal, growth, and repair**. The amount of nucleic acid in the body decreases with age; in fact, insufficient nucleic acid causes premature aging as well as weakened immunity. Nucleic acid is depleted by lack of exercise, stress, pollution, and poor diet. **Replenishing RNA/DNA is therefore important to every aspect of bodily health and longevity**. Since chlorella has a true nucleus, it is a more evolved organism than the other common green micro-algae and therefore may offer **superior-quality RNA/DNA**. This particular aspect of its RNA/DNA, measured by the CGF, **strengthens immunity** by improving the activity of T- and B-cells, which defend against viruses and other invading microorganisms, and macrophages, which **destroy cancer** and cellular debris in general.28-31*

- Healing With Whole Foods by Paul Pitchford

When it comes to immune boosting function, both chlorella and spirulina are miracle-class foods. Yet chlorella is clearly the more gifted of the two. For people who ask about boosting their immune system function, I frequently recommend adding both chlorella and spirulina to their diet, with emphasis on the chlorella.

## Chlorella & Spirulina for Cardiovascular Health & Heart Disease

The list of health benefits from micro-algae never ends, it seems. No organ or system in the human body is isolated from the beneficial effects of these complete foods. Previously, I discussed the presence of mucopolysaccharides in the cell wall of chlorella. What's interesting is how the nutrients in this cell wall impact cardiovascular health. You see, these nutrients are completely digestible, unlike the insoluble fibers found in most vegetables and land plants. Chlorella's cell wall, although very tough, can be broken down into proteins and complex sugars by the human body. Once that is complete, they work real magic:

*Mucopolysaccharides (MPs) are credited with strengthening body tissues, especially the connective tissues, while making them more **elastic and resilient**. They also are strongly **anti-inflammatory**. All these attributes are most important for those who are very active physically and for older people as well. Because of the high incidence of heart disease in the West, MPs are sometimes used to **reinforce the tissues of the heart and guard against artery deterioration**. They further **protect the vascular system** by lowering blood fat.*

*Chlorella contains a **greater quantity of fatty acids** than either spirulina or wild blue-green. About 20% of these fatty acids are the **artery-cleansing, omega-3, alpha-linolenic variety**; perhaps this is one reason chlorella has been shown to be so effective in **reducing cholesterol** in the body and **preventing atherosclerosis**.*

### - Healing With Whole Foods by Paul Pitchford

These are strong benefits for such a simple plant:

- Improved elasticity of heart tissues.
- Enhanced protection of the vascular system.
- Reducing serum cholesterol.
- Preventing atherosclerosis.

And yet, these are just a few of the many clinically researched health benefits demonstrated by chlorella. Are you beginning to see just how miraculous this food really is? There's probably not a person on the planet who couldn't benefit from chlorella.

## Chlorella & Spirulina for Heavy Metals Detoxification

Continuing with the remarkable properties of the chlorella cell wall, it turns out that the mucopolysaccharides also have another fascinating property: they bind with environmental toxins and carry them safely out of the body.

What kind of environmental toxins?

- Heavy metals like aluminum, mercury, cadmium and arsenic.
- Pesticides.
- PCBs (polychlorobiphenyls)

Remarkably, there was considerable research conducted in Japan on the detoxifying effects of chlorella in the decades following the United States' dropping of nuclear bombs on Japanese civilian populations:

*Many reports have come from Japanese research studies that followed the nuclear catastrophe resulting from atomic bombs that were dropped on the cities of Hiroshima and Nagasaki in 1945. In a report to the General Meeting of the Pharmaceutical Society of Japan on an early study in animals, Ichimura (1973) reported that chlorella (8 grams daily) **increased elimination of cadmium:** threefold in feces and sevenfold in urine. Other researchers from Japan showed that chlorella helped **detoxify uranium and lead** (Horikoshi et al. 1979). Chlorella has detoxification potential for similar compounds, such as **dioxin and polychlorinated biphenyls**. (PCBs are chemical compounds used in plastics, insulation, and flame retardants, with potential to cause cancer and liver damage.) Other research indicates that chlorella is useful in detoxification of high levels of **mercury** in the body caused by removal of mercury amalgam. Some **dentists recommend chlorella** to patients who are having mercury amalgams replaced (as well as to themselves and staff who can incur accidental exposure from day-to-day exposure to amalgam filling procedures)*

#### - Disease Prevention and Treatment, the Life Extension Foundation

It is well known that the build up of heavy metals in the body leads to disastrous health results and some rather frightening diseases such as Alzheimer's disease. And while chlorella is the primary helper here, due to its cell wall structure, it appears that spirulina may also be a potent detoxifier:

*Spirulina may help ADHD by removing aluminum, carbon tetrachloride, and other toxins from the body (Torres-Duran et al. 1998; Vadiraja et al. 1998).*

#### - Herbal Medicine, Healing & Cancer by Donald R. Yance

## Chlorella & Spirulina for Hypoglycemia & Diabetes

*Spirulina is a natural, easily assimilated complete protein. It's nature's highest source of chlorophyll pigment, rich in such chelated minerals as iron, calcium, zinc, potassium, and magnesium, a fine source of vitamin A and B-complex vitamins, and it contains phenylalanine, which acts on the brain's appetite center to **decrease hunger pangs**—while also keeping your **blood sugar** at the proper level.*

#### - Earl Mindell's Vitamin Bible

Both spirulina and chlorella demonstrate phenomenal benefits when it comes to controlling blood sugar. This is relevant to both hypoglycemia and diabetes.

What's responsible for these blood sugar regulating effects? These micro-algae contain a near-perfect ratio of high-density proteins (twelve times more protein than beef, remember?) and

complex carbohydrates. Spirulina has the added benefit of providing GLA, which has also been shown effective at controlling blood sugar levels and diabetes.

These proteins and carbohydrates provide a steady energy stream to the body without spiking insulin secretion. As a result, they control cravings and many people use spirulina, especially, as an appetite suppressant to help dissipate intense carbohydrate cravings.

Since much of the reason for carbohydrate cravings is founded in nutritional deficiencies in the first place, chlorella and spirulina also work to reduce cravings by providing nutrients such as magnesium that are typically missing in the body. When these nutrients are finally provided to a body that has been craving them for a long period of time (years, usually), the appetite tends to calm down.

See, when many people crave chocolate, they are simply misinterpreting signals from the body to “eat more magnesium.” If they would simply get the magnesium they need in the first place, their chocolate cravings would diminish substantially.

### Chlorella & Spirulina for Cleansing & Detoxification

If you're engaged in physically intense activities (strength training, cardiovascular training) or heavy metabolic processes (high-protein dieting, chemotherapy, exposure to toxins), you'll find the chlorophyll of both chlorella and spirulina to offer tremendous support. This chlorophyll cleanses the liver, kidneys and blood of toxins and metabolic impurities (such as excess uric acid).

When the liver and kidneys are working more smoothly, everything improves in the body. This cleansing effect is especially important for people who follow any sort of low-carb diet (Atkins diet, South Beach diet, etc.) since such diets are well known to place a heavy burden on the liver and kidneys. (Eliminating excess ketones from the blood and body takes work.) As I've mentioned, I follow a low-carb diet myself, since I think refined carbohydrates have no place in the diet of healthy human beings. But unlike most low-carb dieters, I also take plenty of chlorella and spirulina to make sure my system gets the support it needs.

People who engage in substance abuse of any kind -- smoking, drinking, drugs, and so on -- have a very strong need for chlorella and spirulina. Their habits place enormous stresses on their organs (especially the liver), and if they don't do something to support and cleanse those organs, they are undoubtedly headed towards some very undesirable results.

Chlorella and spirulina can help these people, but of course they can't counteract the overwhelming toxicity of smoking cigarettes, for example. A smoker who takes chlorella will be far healthier than a smoker who doesn't, but a person who doesn't smoke at all will be far healthier still.

The cleansing effect of chlorella and spirulina isn't limited to only those who engage in substance abuse. Thanks to environmental toxins, air pollution, water pollution and other contaminants, we are all exposed to toxic substances, even if we avoid the worst habits like smoking. As a result, we can all benefit from the cleansing and detoxifying effects of chlorella and spirulina.



## Why Chlorella & Spirulina are Better Than Bulk Vitamins & Minerals

*The only truly natural vitamins are those that come from foods. They are available in nutritional supplements as highly nutritious, concentrated foods; powdered concentrates of foods and herbs with the moisture removed; and an isolated component of a food. Sources of these include ...wheat-grass juice, freshwater algae (blue-green algae, chlorella, spirulina), sea vegetables such as kelp, enzymes, wheat-germ oil, and minerals from ancient sea, clay, or vegetation beds.*

### - Home Safe Home by Debra Lynn Dadd

I've eluded to this throughout this report, and it deserves repeating: vitamins simply can't compare with these micro-algae when it comes to superior nutrition. For one thing, there's no such thing as an isolated vitamin in nature. No "Vitamin C" fruits grow on trees, for example: all fruits have a spectrum of vitamins and minerals. There are no "Calcium leaves" on vegetables. All vegetables have an assortment of minerals and phytochemicals that work synergistically to support human health.

In nature, we find whole spectrum food sources that provide an abundance of synergistic elements that work together in the human body in ways that no scientist can truly comprehend. Modern scientists haven't even identified all of the phytochemicals found in chlorella and spirulina, much less studied their combined effects in full detail.

This is why chlorella and spirulina are superior to isolated vitamins and minerals. In fact, when you consume chlorella and spirulina on a daily basis, you can throw out your vitamins and minerals. There's simply no need to take isolated, individual vitamin and mineral supplements. Many of them, especially the cheaper brands, are made from entirely "unnatural" sources in the first place and are of questionable nutritional value. If you really want to consume vitamins the way nature intended, you've got to eat them as they are found in nature, which means consuming chlorella and spirulina on a regular basis.

Certainly, many vegetables, fruits, nuts, seeds and other plants are also outstanding sources of nutrition, but even their nutritional density pales in comparison to chlorella and spirulina. In my dietary plan, I eat vegetables primarily for fiber and bulk, not for nutrition (although many vegetables are, indeed, powerful disease fighters). But when it comes to my nutritional needs, I count on superfoods exclusively.

You won't find any bottles of "calcium" or "Vitamin C" in my pantry: I've long since thrown them out. Instead, you'll find row upon row of bottles and powder labeled "chlorella" and "spirulina."

## How to Take Chlorella & Spirulina

Let's talk about how much chlorella and spirulina you should actually take. The following figures are based on an average 150-pound adult. Adjust proportionally to your own body weight.

### Spirulina

- **Disease-fighting dose:** 20 grams / day
- **Maintenance dose:** 10 grams / day
- **Athlete dose:** as much as 60 grams / day
- **Upper limit:** there is no upper limit. You can eat spirulina like food. If you eat "too much," you will simply get full.

### Chlorella

- **Disease-fighting dose:** 10 grams / day
- **Maintenance dose:** 5 grams / day
- **Upper limit:** there is no upper limit, but introduce chlorella into your diet gradually and monitor your stools. Since chlorella can result in mild diarrhea in some persons, introduce it slowly. (Your body will adapt over a period of a few weeks, allowing you to take more.)

Once again, most people take far too little of these foods. I've seen people take two tiny tablets of chlorella -- about 300mg -- and declare they've "taken my chlorella for the day!" That's like eating one bite of broccoli and expecting to receive the full health benefits of broccoli.

In order to be effective, you've got to take the much larger doses mentioned above. If you buy chlorella in tiny tablets, as it is often sold, that means taking a handful of tablets with each meal. Here's a tip: don't count out the tablets every single time. Count them once so you know what five grams looks like. After that, just grab a handful and toss it down your throat. It doesn't matter if it's off by a few tablets. Remember: these aren't drugs. You don't have to be exact about it, just make sure you're getting at least the doses mentioned above.

There's no harm in taking more, of course. Aside from the health benefits I've described here, the main thing you'll notice is that your stools will turn green. This is an indication that you're getting a good dose of chlorella and spirulina into your diet. If your stools aren't green, you aren't taking enough.

## The Cost of Chlorella & Spirulina

With these sort of doses, the monthly cost for taking chlorella and spirulina can be a bit steep, or at least it appears so at first. But I'd like to challenge that belief system for a minute: what is the cost of getting cancer? What's the cost of getting a major disease? What's the cost of having low energy, or clinical depression, or degenerative nerve disease?

An entire month's supply of chlorella is less than a single day's stay at any hospital. That makes chlorella and spirulina the bargain of a lifetime in my book. Any substance that can extend my life, avoid me having to see the doctor, and keep me out of the hospitals and away from prescription drugs is a real bargain, no matter what the cost.

The trick, of course, is to look at the total cost of your actions. The cost of smoking cigarettes is far more than what a person pays for the cigarettes. The total cost includes a loss of lifespan, sky-high medical bills, and a lifetime of suffering from the ravaging health effects of cigarettes.

The cost of chlorella and spirulina, on the other hand, is only a few dollars a week. In exchange, a person experiences greater health, greater mental clarity, longer lifespan, prevention of a long list of diseases, and in many cases, even the reversal of major diseases. You can't put a price on these benefits, but if you could, there's no doubt they would greatly outweigh the few dollars spent on chlorella and spirulina.

Eating these superfoods, you see, is an investment, not an expense. Spend a few dollars today, invest it in your own good health, and the payoff will last you a lifetime. Or at least for as long as you keep eating these superfoods. And that leads me to the next section...

## Taking Chlorella & Spirulina For Life

Don't make the common mistake of thinking, "Oh, I'll just take chlorella until I get over this cancer," or, "I'll just take spirulina for three months to get better and then I'll stop."

Chlorella and spirulina are superfoods that should be regularly consumed as part of your lifelong diet. These are foods that should be permanently etched into your own personal food choices menu. Plan on taking both of these superfoods at every meal for the rest of your life. That's exactly what I do, and I have every intention to continue doing it for as long as I live.

I can't imagine a day without chlorella and spirulina. I've had days where I accidentally ran out of spirulina, and it nearly ruined my day! Without this source of quality protein, I had to turn to other sources like animal meat. The difference was striking: when consuming the animal meat, I had less energy, I felt hungrier, and I was sluggish for the entire day. These days, I make sure I never run out of spirulina!

Here's something to consider: if chlorella and spirulina help you conquer a major disease condition like cancer, then why on Earth would you stop taking them after the disease symptoms are no longer obvious? With diseases like cancer, you're not out of the woods just from a disappearance of tumors or other symptoms. Cancer is a systemic disease, and unless you continue giving your body the nutrients it needs to stay healthy, that cancer could very easily

return. It is old dietary habits that cause cancer in most people in the first place. If they return to those old habits, it's only reasonable to assume their cancer will return.

The bottom line: Put chlorella and spirulina at the top of your priorities list. Make a budget for it. You've got a house payment, perhaps, and a car payment, insurance payment and a grocery budget. Add chlorella and spirulina to the top of this list and make them part of your budget. Just decide that you're going to be healthier from now on, and to do that, you've got to get these substances into your diet. In the long run, you'll probably save a fortune on prescription drugs and medical costs anyway, which makes the chlorella and spirulina essentially free.

## Frequently Asked Questions About Chlorella & Spirulina

### **How frequently should I take chlorella and spirulina?**

With every meal, every single day. You do not need to "cycle off" these superfoods. You can eat them every single day for the rest of your life.

### **For how many weeks or months should I take them?**

Only take chlorella and spirulina for as long as you wish to be healthy. Plan on taking them for at least one year in order to experience their full health benefits, since it may take time for these superfoods to detoxify your system, remove heavy metals, support immune function, fight pre-cancerous cells, improve digestion, regular blood sugar, and so on.

### **I'm about to undergo chemotherapy. Should I stop my chemotherapy and take chlorella instead?**

The first thing you should do is educate yourself about chemotherapy. I highly recommend the book, "Questioning Chemotherapy" by Ralph W. Moss, who used to work as a lead researcher at the National Institutes of Health. Ralph will give you the straight story on chemotherapy. Whether you decide to undergo chemotherapy or avoid it, chlorella will improve your results. For me personally, I wouldn't touch chemotherapy. I think that in the years ahead, chemotherapy will be looked upon as a "barbaric" approach to curing cancer. It utterly destroys your immune system, for one thing. Having your hair fall out is not a sign that you're getting healthier. Read the book by Ralph Moss to get more information. Certainly don't undergo chemo until you get the facts.

### **Will eating these superfoods turn my stools green?**

Yes. It's totally normal. If your stools aren't green, you probably aren't eating enough.

### **What's the best form for taking chlorella / spirulina supplements?**

Many of the "popular" chlorella supplements are made into small compressed tablets. This form is fine, but I personally prefer capsules, since they are easier to swallow and disintegrate more quickly in the stomach. If you can handle the taste, using these micro-algae in powder form is also a good way to increase your daily intake. You can blend them into drinks (soymilk + flax oil + banana + unsweetened cocoa powder + stevia + spirulina makes a highly nutritious drink), or mix them into soups, cereals, or various recipes. Get creative, and get used to your food looking green. Green is good.

### **Where do you recommend I purchase these supplements?**

First off, remember that I don't sell these supplements, and I make no money from your purchase, regardless of where you buy them. I've purchased from many suppliers, and my favorites are listed on the next page.

## My Top Recommended Sources for Chlorella & Spirulina



[www.JennyLeeNaturals.com](http://www.JennyLeeNaturals.com)

**Open Cell Wall Chlorella** from Jenny Lee Naturals  
450mg 500 capsules for \$27.00 (4-pack price at time of printing)  
**Price per gram: 12 cents**

**Organic Hawaiian Spirulina** from Jenny Lee Naturals  
450mg 500 capsules for \$27.00 (4-pack price at time of printing)  
**Price per gram: 12 cents**

**Jenny Lee Supergreens** (16 oz. powder)  
Chlorella, spirulina, soy protein, wheat grass, quinoa, etc.  
Compares to The Ultimate Meal  
16 oz. powder for \$29.95 (at time of printing)



[www.SwansonVitamins.com](http://www.SwansonVitamins.com)

**Kyoto Chlorella**  
200mg 1500 tabs for \$35.99 (at time of printing)  
**Price per gram: 12 cents**



[www.iHerb.com](http://www.iHerb.com)

**Chlorella Yaeyama**  
200mg 600 tabs for \$15 (at time of printing)  
**Price per gram: 12.5 cents**



[www.VitaminShop.com](http://www.VitaminShop.com)

**China Chlorella**  
500 mg 120 tablets for \$13.30 (at time of printing)  
**Price per gram: 22 cents**



[www.VitaCost.com](http://www.VitaCost.com)

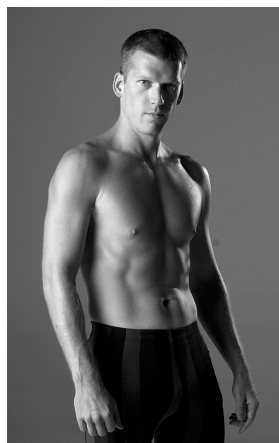
**Sun Chlorella**  
200mg 1500 tabs for \$75.49 (at time of printing)  
**Price per gram: 25 cents**

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## About The Author



Mike Adams is a holistic nutritionist with over 4,000 hours of study on nutrition, wellness, food toxicology and the true causes of disease and health. He is well versed on nutritional and lifestyle therapies for weight loss and disease prevention / reversal. Adams uses no prescription drugs whatsoever and relies exclusively on natural health, whole foods, superfoods, nutritional supplements and exercise to achieve optimum health. To prove the value of nutrition and physical exercise in enhancing health, Adams publishes detailed statistics on his own blood chemistry (with full lab results) at <http://www.newstarget.com/AdamsHealthStats.html>

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