



THE ONLY SUPPLEMENTS YOU NEED TO GET THE BODY YOU WANT.

## THIS IS THE DEFINITIVE GUIDE TO SPIRULINA SUPPLEMENTATION



Spirulina is a blue-green algae (a type of bacteria that uses photosynthesis to generate energy and stay alive) that grows in freshwater lakes and ponds around the world.

It was once a primary source of protein for the ancient Aztec and African populations, and chemical analysis shows why—it's an excellent source of a number of different macro- and micronutrients, including protein, essential amino acids, vitamins, and essential fatty acids.

Spirulina contains several other compounds that scientists have isolated as beneficial to our health. The main one is phycocyanobilin, which makes up about 1% of spirulina by weight.

This compound mimics a compound the body produces called bilirubin, which inhibits enzymes that can cause oxidative damage and inflammation in the body. In this way, phycocyanobilin has both anti-oxidative and anti-inflammatory effects.

There are fifteen species of spirulina, but three (*Spirulina platensis*, *Spirulina maxima*, and *Spirulina fusiformis*) have received the most scientific attention due to their high nutritional value and reported health benefits.

### **WHY DO PEOPLE SUPPLEMENT WITH SPIRULINA?**

Spirulina is commonly used as a vegan source of protein and various nutrients, including vitamin B12. Well, it's between 55 and 70% protein by weight, it has a better amino acid profile than many other plant foods, and it's highly nutritious, but it isn't a good source of vitamin B12.

The concentrations of biologically active B12 contained in spirulina vary between different strains, but it's low enough in all to rule it out as a reliable source of this vital micronutrient.

That said, spirulina is rich in numerous other vitamins and minerals including:

- |                           |              |
|---------------------------|--------------|
| ✓ Vitamin B1 (Thiamine)   | ✓ Calcium    |
| ✓ Vitamin B2 (Riboflavin) | ✓ Magnesium  |
| ✓ Vitamin B3 (Niacin)     | ✓ Potassium  |
| ✓ Copper                  | ✓ Phosphorus |
| ✓ Iron                    | ✓ Manganese  |

If that's not all that exciting to you, I understand.

Most people know that vitamins and minerals "matter," but they don't realize how important they really are.

The reality is if your diet doesn't provide you with adequate levels of the two-dozen-plus essential vitamins and minerals that your body requires, you'll never reach peak levels of health, vitality, and general well-being.

For example...

Vitamin B1 has a number of benefits including promoting energy production and brain function.

Other benefits include: maintaining optimal functioning of the nervous and digestive systems, ensuring proper cardiac functioning, improving memory, and producing red blood cells.

Vitamin B2 also boosts energy production and helps in the production of red blood cells.

In addition, it helps regulate thyroid activity in the body, aids in maintaining healthy eyes and skin, increases mineral absorption in the body, and supports immune and nervous health.

As you would expect from another vitamin in the B family, vitamin B3 plays a role in regulating energy production.

It also promotes healthy functioning of the digestive and nervous systems, helps to normalize blood lipid levels, promotes cardiovascular health, and improves skin health.

Copper is a mineral that's essential for the production and function of red blood cells.

It also plays a role in maintaining healthy blood vessels, nerves, immune function, and bones.

Iron is a mineral that the body needs to make hemoglobin, a protein in red blood cells that carries oxygen from the lungs to all parts of the body, and myoglobin, a protein that provides oxygen to muscles.

Your body also needs iron to make some hormones and connective tissue.

The iron in spirulina is particularly beneficial as it's highly bioavailable and iron deficiencies are fairly common, particularly amongst women.

Remarkably, the calcium, phosphorus, and magnesium in spirulina occur at similar levels to those found in milk, which makes it especially valuable to people who can't or don't consume milk.

Spirulina also contains each of these minerals in balanced proportions, minimizing the extent to which they compete for absorption in the body.

The high potassium content in spirulina is another huge benefit worth calling out.

Most people don't realize how much potassium the body needs to function optimally (at least 4.7 grams per day) and how few foods are high in potassium.

Thus, potassium deficiencies are prevalent among Westerners and, when combined with a high sodium intake (also prevalent here in the States), the risk of heart disease jumps considerably.

### **WHAT ARE THE BENEFITS OF SPIRULINA?**

Given spirulina's illustrious history and impressive nutritional profile, it's no surprise that it has been the focus of a fair amount of human research.

It's also no surprise that it does indeed confer a variety of health benefits.

For example, studies show that spirulina can improve muscle strength in both trained and untrained individuals. It also has been shown to improve fat oxidation and exercise performance.

Spirulina has a number of non-exercise-related benefits as well, ranging from improved lipid and glucose metabolism to the reduction of liver fat and the protection of the heart.

Research shows that spirulina is also effective in reducing blood pressure and cholesterol levels and is a promising anti-oxidant and anti-inflammatory, which helps explain why it can improve allergies.

It even has anti-microbial properties and thus helps you fight off infections.

## WHAT IS THE CLINICALLY EFFECTIVE DOSAGE OF SPIRULINA?

The doses used in studies of spirulina vary considerably, ranging from 1 to 8 grams per day.

Here's how it shakes out:

- ✓ For improving muscle performance, you want to take 2 to 7.5 grams per day.
- ✓ For improving blood glucose control, mild effects have been observed with 2 grams per day.
- ✓ For reducing cholesterol levels, doses should be in the range of 1 to 8 grams per day.
- ✓ For lowering blood pressure, doses of 3.5 to 4.5 grams per day have shown benefit.
- ✓ For fatty liver, benefits have been seen at doses of 4.5 grams per day.

## WHAT TYPES OF RESULTS SHOULD I EXPECT FROM TAKING SPIRULINA?

Remember that supplements don't build great and healthy physiques—dedication to proper training and nutrition does. That said, spirulina can help you achieve both your health and fitness goals. Here's what you can reasonably expect from spirulina supplementation...

- ✓ Increased muscle strength and endurance.
- ✓ Improved cardiovascular endurance.
- ✓ Reduction in blood pressure.
- ✓ Improvement in cholesterol profile.
- ✓ Lessening of allergy symptoms.
- ✓ Increased resistance to illness.

## DOES SPIRULINA HAVE ANY SIDE EFFECTS?

Side effects are rare for spirulina, even at high doses. Research shows that it's generally well tolerated. However, as with any supplement, some people do experience negative reactions, which can include...

- ✓ Elevated temperature
- ✓ Slight dizziness (usually only when taken in excess)
- ✓ Thirst and constipation (can be alleviated by drinking plenty of water)
- ✓ Stomach ache
- ✓ Skin itch or slight body rash

These side effects are very uncommon, though.

One other thing of note is spirulina contains iodine, which some people are allergic or sensitive to. This is why those taking prescription medications should check with their doctor before supplementing with spirulina.

## THE BEST SPIRULINA SUPPLEMENTS

Spirulina is mostly sold as a standalone supplement and included in greens supplements, and now you know why.

It's one of the best single supplements you can take for improving your overall health and well-being.

Remember, though, that the dosage matters. If you want to get most of what spirulina has to offer, you want to take about 5 grams per day.

This is easily done if you buy pure spirulina powder or tablets, but most greens supplements are poor sources because they almost always contain small dosages.

The reason for the under-dosing is obvious: cost.

Thus, many supplement companies choose to cut corners and use small, ineffective doses (usually ranging in milligrams, not grams) that increase the perceived value of the product but don't do much healthwise.

That's why my greens supplement GENESIS contains a full clinically effective dosage of 5 grams of the highest-quality spirulina per serving.

It also contains clinically effective dosages of several other ingredients that improve general immunity, heart and circulatory health, energy levels, libido, mood, overall well-being, and more:

### Greens Blend of Spinach, Kale, and Dandelion Leaf

We chose the combination of spinach, kale, and dandelion leaf rather than simply using a large dose of lettuce or rocket, because spinach and kale have other beneficial compounds in them such as isothiocyanates, which are known to confer a variety of health benefits.

Dandelion is also high in dietary potassium, which is by far the most common nutrient deficiency and not one that can be easily solved with supplements.

### Reishi Mushroom

Research shows that supplementation with reishi mushroom...

- ✓ Improves subjective sense of well-being
- ✓ Helps protect liver health
- ✓ Reduces feelings of anxiety and fatigue
- ✓ Protects DNA from oxidant damage, which is a major factor in aging
- ✓ Inhibits the creation of new fat cells
- ✓ Reduces the time it takes to fall asleep
- ✓ Helps protect brain health
- ✓ Improves blood glucose control
- ✓ Raises "good" (HDL) cholesterol levels
- ✓ Boosts and balances the immune system
- ✓ Helps protect kidney health
- ✓ Exerts anticancer effects



## Astragalus Membranaceous

Astragalus contains a variety of beneficial molecules such as flavanoids and polysaccharides, but one of the more notable components is “astragaloside IV,” which is a type of compound found in many plants known as saponins.

Research shows that supplementation with astragalus membranaceus...

- ✓ Boosts the immune system
- ✓ Helps protect heart health
- ✓ Reduces blood pressure
- ✓ Helps protect kidney health

## Moringa Oleifera

Gram for gram, moringa leaves contain four times the calcium and two times the protein in milk, three times the potassium in bananas, four times the vitamin A in carrots, and seven times the vitamin C in oranges.

We chose to include moringa for two reasons:

- 01.** Its high potassium content, which most people can benefit from due to inadequate potassium intake.
- 02.** Its large amount of various types of isothiocyanates, which are thought to be responsible for many of the health benefits of moringa.

Research shows that supplementation with moringa...

- ✓ Helps protect heart health
- ✓ Reduces blood pressure
- ✓ Mitigates DNA damage
- ✓ May have anticancer benefits

## Maca

Research shows that supplementation with maca...

- ✓ Improves subjective sense of well-being



- ✓ Improves sexual function in men and women
- ✓ Improves sperm production and health
- ✓ Improves libido in men and women
- ✓ Helps preserve joint health
- ✓ Can reduce feelings of anxiety and non-clinical depression

And what you won't find in GENESIS is equally special:

- ✓ No artificial sweeteners or flavors.
- ✓ No artificial food dyes.
- ✓ No unnecessary fillers, carbohydrate powders, or junk ingredients.

The bottom line is if you want to supplement your diet with additional vegetable intake as well as other plant-based nutrients proven to improve health, mood, physical performance, immunity, and longevity...then you want to try GENESIS today.

Real science. Real supplements. Real results.  
Get the results you want when you shop our line of bodybuilding,  
pre-workout and weight loss stacks and supplements.

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**YOU SHOULD BE GETTING MORE FOR YOUR SUPPLEMENT MONEY.**