

# Spirulina: An Amazing Plant for Treating Skin Conditions

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**Abstract:** *Our skin serves as both a barrier to the outside world and the greatest organ in our body. Our skin is more susceptible to free radical damage when it is exposed to pollutants and UV radiation over extended periods of time. By destroying the DNA and cell membranes that maintain the skin tight and full, excessive exposure to free radicals from a poisonous diet and environmental contaminants damages the skin. As everyone knows, our bodies' deficiencies in certain nutrients are the root cause of a number of ailments. These ailments are merely signs that we might be deficient in certain nutrients. Usually, the symptoms go away if we refill these nutrients in a timely manner. Spirulina is frequently referred to as the world's most complete food source because it contains more than 100 nutrients. The US National Aeronautic and Space Agency intends to cultivate spirulina aboard its space station and incorporates it into the diet of its astronauts. Japan has several excellent examples of elderly people who have lived off on spirulina and water for more than 20 years, demonstrating the health benefits of spirulina for humans. Spirulina works wonders for healing dark circles, dry eyes, dandruff, aging skin, wrinkles, and hair loss. It also detoxifies the skin.*

**Keywords:** Spirulina

## I. INTRODUCTION

Spirulina is a micro-salted water plant that is entirely natural and extremely nutritious. It was found in naturally occurring alkaline lakes in South America and Africa. This spiral-shaped algae provides a plenty of food. This algae has been an important part of many communities' diets for a very long time centuries. In certain nations, spirulina has gained popularity and been used extensively as a nutritional supplement since the 1970s. Spirulina is notably rich in vegetable protein (60–63%, which is about three times higher than fish or beef) and several vitamins (B12 is about three times greater than animal liver), both of which are deficient in vegetarian diets. It has a high concentration of beta-carotene, which protects cells five times more than carrots and forty times more than spinach, high volumes of gamma-linolein acid, which can lower cholesterol and prevent heart disease, and a wide range of minerals, including iron, potassium, magnesium, sodium, phosphorus, calcium, and so on. In addition, only spirulina includes the unique compound phycocyanin. Spirulina is a type of blue-green algae found in nature. It is a wonderful source of antioxidants and is highly rich in protein, minerals, vitamins, and many other nutrients. Studies conducted in lab settings suggest that spirulina may be a natural wonder medication because of its many advantages over common algae.

### Nurturing and natural features of Spirulina

Large freshwater lakes support certain species of blue-green algae, although most are found in highly salinized tropical or subtropical environments. These algae's inherent color can give water bodies a dark green hue. The varieties and mix of blue-green algae in the water are significantly influenced by the height, temperature, and sun exposure of the areas where the algae are grown. There are four major conditions for growing Spirulina.

1. Tropical weather
2. Strong sunshine
3. Pure water resource
4. Pollution free environment

Commercial Spirulina cultivation cannot be grown in a cold or moderate climate. Consistently high temperatures are necessary for the growth of Spirulina. Wherever there is a consistent low temperature (less than 25 degrees), spirulina cannot develop. Spirulina will quickly cease replicating and perish at temperatures below 20 °C.

### **Dosage of Spirulina.**

A regular dosage usually consists of four to six 500 mg tablets each day. Remember to take 500 mg of spirulina if you decide to take it in a form other than a pill. It's also critical to keep in mind that taking spirulina while pregnant or nursing is not advised. Ensure that you take spirulina only with cold or warm water. Steer clear of consuming it with milk, juice, tea, or soda. Additionally, stay away from these items for at least 30 minutes after consuming spirulina, as they may negate some of its beneficial effects. To aid in the improved absorption of spirulina into your body, drink an additional half-liter of water each day in addition to taking it.

### **Skin:**

Because our skin is a remarkable indicator of our body's health, our interior well-being has an impact on it. Therefore, treating skin issues requires having our body's systems operating at their best. Diet is also crucial; it's critical to consume meals that fuel our bodies while avoiding those that are harmful or have no nutritional worth.

### **Skin Nutrition:**

Three fundamental factors determine the condition of our skin:

1. The caliber of nutrients we consume
2. The efficiency with which these nutrients are metabolized and absorbed
3. The efficiency with which the body waste is removed

To help skin feel and look amazing, it's critical to provide the body's cells with the right nutrients and water balance. The human body is intelligent by nature; provide it with necessities rather than wants, and it will take care of all elements of its own health. The skin serves a variety of purposes and is a component of the body. It is the body's largest organ. (10) (11), (9) It acts as a barrier, aids in controlling body temperature, strengthens the immune system to protect the body from outside invaders, and supports the body's detoxification process. Another name for it is "the third kidney." Toxins will be eliminated through the skin if the kidneys' elimination channels are clogged up. Examining and implementing the nutritional foundations is crucial because: Healthy skin on the inside leads to beautiful skin on the outside. Our skin's state is a clear indicator of our overall health because it reflects internal bodily processes externally. The rest will be taken care of by the body: a glowing complexion, more energy, and a healthy body.

Eat a lot of fresh fruit and vegetables and drink lots of water. It may seem apparent, yet it can truly have an impact. Restrict your consumption of refined carbs (such as white bread) and sugary/fried foods. Increase your intake of foods high in antioxidants, such as fish, seafood, berries, broccoli, pumpkin, carrots, and watercress. Increase the amount of essential fats you eat to maintain your skin elastic and silky. Aim to eat oily fish a few times a week and a handful of unsalted nuts and seeds every day. Take action to learn more about and treat any underlying health conditions you may have, as these can cause skin problems, especially if you struggle with digestion or hormone balance.

### **Spirulina, the wonder nutrient for the skin:**

It purifies and cleanses the body in addition to having almost all the nutrients needed for healthy skin. Every day, it naturally detoxifies. Because of its antioxidant system, spirulina shields the dermis and epidermis from the damaging effects of free radicals. The essential fatty acids, GLA fatty acid, lipids, vitamin E, B complex, and phytochemicals like carotenoids, chlorophyll (a blood purifier), and phycocyanin (a blue pigment), which is known to inhibit skin cancer, are all included in its exceptional nutritional profile.

### **Spirulina Health Benefits:**

A "superfood" with exceptional nutritional value is spirulina. This plant, which is high in essential nutrients, provides the following health advantages:

**1. Treatment of Allergies:**

Studies suggest that Spirulina may be useful in the management of allergic rhinitis. Spirulina consumption aids in the reduction of symptoms such as itching, congestion, sneezing, and nasal discharge.

**2. Lowers Blood Cholesterol Levels:**

Spirulina improves the body's natural ability to absorb essential minerals and lowers blood cholesterol levels. A daily dose of several grams of spirulina can lower LDL, or bad cholesterol, and enhance the ratio of good to bad cholesterol. Weight loss is greatly aided by this cholesterol leveling.

**3. Beneficial in Diabetes:**

A study found that consuming dietary supplements containing Spirulina for a duration of 12 weeks leads to a noteworthy decrease in blood-fat levels. It is especially helpful for diabetics because it lowers blood pressure and cholesterol and reduces inflammation..

**4. Aids in Weight Loss:**

Beta-carotene, chlorophyll, fatty acid GLA, and other nutrients that are especially helpful for overweight individuals are abundant in spirulina. Using this supplement during a fast is advantageous since it suppresses your appetite and provides the nutrients your body needs to recover and purify itself.

**5. Prevents Cancer:**

Numerous studies have demonstrated that spirulina can strengthen your immune system, lower your chance of developing cancer, and stop the growth of cancer. Because it includes a unique type of protein that is easily assimilated, it makes a wonderful alternative to animal products. It doesn't overburden your body with waste products like animal proteins do. Phycocyanin, a pigment having anti-cancer qualities, is also abundant in it. It suppresses uncontrollably high cell division and boosts immunity. Additionally, spirulina provides some defense against oral malignancies.

**6. Improves Brain/Cognitive Function:**

Folate and vitamin B-12 are essential for the brain and neurological system to function properly. Spirulina, which is abundant in essential nutrients, aids in preserving cognitive function as people age. This dietary supplement supports the preservation of brain health.

**7. Cures Depression:**

A good source of folic acid, which helps produce red blood cells and energy while nourishing the brain, is spirulina. It is therefore advantageous for the treatment of depression.

**8. Eye Health:** Studies have indicated that Spirulina is good for the eyes. It has been demonstrated to be successful in treating a number of eye conditions, including nephritic retinal damage, diabetic retinal damage (retinitis), geriatric cataracts, and angiosclerosis, or the hardening of the retinal blood vessels.

**9. Treatment of Ulcers:**

Because it contains a significant amount of high-quality protein, cysteine, and amino acids, spirulina is an effective treatment for gastric and duodenal ulcers. Because of its high chlorophyll content, it helps maintain and improve healthy digestion.

**10. Treatment of Hepatitis and Cirrhosis:**

According to clinical findings, Spirulina both protects and heals hepato-cirrhosis and fatty liver. For best effects, this supplement needs to be used for at least a month.

**11. Promotes Sexual Vitality:**

Spirulina is good for enhancing sexual vigor because of its high protein content and the other vitamins, minerals, and enzymes it contains.

**12. Dental Health:**

Spirulina helps strengthen teeth because of its high phosphorus concentration.

**13. Antibacterial Properties:**

The presence of chronic candida yeast exacerbates the symptoms of a number of autoimmune disorders. Spirulina promotes and supports the formation of beneficial bacteria in your stomach, which helps to control the overgrowth of candida.

**14. HIV and AIDS:**

Treatment-related symptoms for HIV and AIDS can be alleviated with spirulina. Additionally, it aids in the inactivation of the HIV and AIDS-related human immunodeficiency virus.

**15. Beneficial during Pregnancy:**

Due to its high iron content, spirulina is recommended for pregnant women, especially those who have anemia. It also prevents constipation.

**16. Other Uses of Spirulina:**

Antimicrobial qualities of spirulina enable it to eradicate several bacteria and viruses, including but not limited to HIV-1, enterovirus, CMV, measles, mumps, influenza A, and herpes simplex. Additionally, by increasing the production of monocytes, natural killer cells, and macrophages all of which eliminate invasive infections in the body it strengthens the immune system.

**Skin Benefits of Spirulina:**

Spirulina is rich in proteins, vitamins, minerals, and fatty acids, and it has several skincare benefits. It offers the following advantages for your skin:

**17. Skin Toner:**

High concentrations of phosphorus, calcium, iron, vitamin B-12, vitamin E, and other nutrients that are essential for healthy skin can be found in spirulina. Free radicals give your skin a sallow, flabby, and worn-out appearance. Regularly taking supplements containing Spirulina improves the tone, vitality, and youthful appearance of your skin. Additionally, it tightens the body and gets rid of waste products from metabolism to treat flabby skin.

**18. Anti-ageing Benefits:**

Tyrosine, selenium, and vitamin E, often known as tocopherol, are found in spirulina and are all recognized for their anti-aging properties. Tyrosine inhibits the aging process of skin cells. Free radicals, the cause of aging skin, are eliminated by the antioxidants in it. Try this face mask to combat acne and stop your skin from aging too soon. Combine some spirulina with water to make a paste, then apply it to your face. After 20 minutes, remove with a wash. In addition to making your skin incredibly smooth and supple, this will stop wrinkles and other aging symptoms.

**19. Detoxifies Skin:**

Skin heals more quickly because to the rapid cell turnover that spirulina promotes. It promotes skin metabolism by removing toxins from the skin and fending against free radicals. Moreover, it stops candida overgrowth, which can result in breakouts of acne.

#### **20. Healthy Nails:**

Spirulina is used regularly to cure nail issues such as fingernail ridges. Seventy percent of spirulina is high-value protein, which the body needs. Warts and nail issues can be resolved by consuming it for roughly four weeks.

#### **Hair Benefits of Spirulina:**

Many people use spirulina to encourage hair development and treat hair issues like baldness and thinning hair. Amino acids, essential fatty acids, beta-carotene, and vitamin A are all found in spirulina and are all very good for hair. The following are a few advantages for hair:

#### **21. Promotes Hair Growth:**

Applying spirulina externally can hasten the development of hair. This algae is used as a component in shampoos and conditioning treatments in addition to being consumed. Additionally, it promotes hair growth.

#### **22. Treatment of Hair Loss:**

An autoimmune condition called alopecia is typified by an alarming rate of hair loss. It causes hair loss on the face and across the body, not only on the scalp. Even in women, this can lead to bald spots and even total baldness. Spirulina functions as a complementary medicine to promote hair growth and prevent more hair loss.

#### **23. Treatment of Dandruff:**

Taken for four weeks, spirulina functions as an antioxidant compound that leaves your hair shiny, stronger, and completely free of dandruff.

#### **Nutritional Value of Spirulina**

Superfood spirulina is full of nutrients and contains a wide range of vitamins, minerals, and fatty acids, all of which add to its many health advantages. One of the healthiest and most concentrated dietary sources, it is commonly found in natural meals and drinks, such as energy bars, green foods and drinks, and oral supplements.

**Result:** Spirulina is a nutrient-rich food source with potential health benefits, particularly for skin and hair. It is described as having detoxifying properties and is said to provide over 100 nutrients. However, it's important to note that while spirulina is widely recognized as a nutritious food, individual responses and scientific research on its specific effects can vary. To determine the actual results or benefits of spirulina for your skin and overall health, it is advisable to consult with a healthcare professional and consider incorporating it into a balanced and varied diet. Additionally, you should be cautious when relying solely on anecdotal evidence, and always consider scientific research and expert recommendations when making decisions about your health and dietary choices.

## **II. CONCLUSION**

In conclusion, the information provided highlights the potential benefits of spirulina as a nutrient-rich food source and its perceived positive effects on skin, hair, and overall health. However, the specific outcomes of using spirulina can vary from person to person, and the scientific evidence supporting its health claims may not be conclusive. Therefore, while spirulina is generally considered a nutritious dietary option, it's essential to approach it with caution and consult with a healthcare professional before making significant dietary changes. Always strive for a balanced and varied diet for overall well-being and consider expert guidance when addressing specific health issues.

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