



## Investigating the therapeutic properties and nutritional value of spirulina

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**Statement of Problem:** Spirulina refers to the dried biomass of *Arthrospira platensis*, an oxygenic photosynthetic Cyanobacteria found worldwide in fresh and marine waters. This alga represents an important staple diet in humans and has been used as a source of protein and vitamin supplement in humans without any significant side-effects. Many toxicological studies have proven Spirulina's safety. It has a long history of use as food and it has been reported that it has been used during the Aztec civilization. Spirulina contains functional compounds, such as phenolics, phycocyanins, and polysaccharides, with antioxidant, anti-inflammatory, and immunostimulating effects.

**Research Purpose:** The aims of this review are to summarize the mechanisms of action, highlight the potential effects of this alga in humans and address current and possible future clinical applications

**Research Method:** We systematically searched online databases including: PubMed-Medline, Embase, ISI Web of Science and Cochrane Central Register of Controlled Trials. Two independent authors extracted data and assessed the quality of included articles

**Results and Conclusion:** In the present studies, the benefits of using spirulina and its effect on the treatment of diseases were investigated. Some of its potential uses include: 1. Immune system support: Spirulina contains antioxidants and anti-inflammatory compounds that may help boost the immune system. 2. Allergy relief: Some studies suggest that spirulina may help reduce symptoms of allergic rhinitis, such as nasal congestion and itching. 3. Blood sugar control: Spirulina may help improve insulin sensitivity and lower blood sugar levels, making it potentially useful for people with diabetes. 4. Lowering cholesterol: Spirulina may help reduce



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levels of LDL (bad) cholesterol and triglycerides, while increasing levels of HDL (good) cholesterol. 5. Anti-cancer effects: Some preliminary studies suggest that spirulina may have anti-cancer properties, although more research is needed in this area. 6. Muscle recovery: Spirulina contains high levels of protein and amino acids, which may help promote muscle growth and recovery after exercise. 7. Detoxification: Spirulina may help remove heavy metals and other toxins from the body, potentially reducing the risk of certain health problems. Overall, spirulina shows promise as a natural supplement with a variety of potential health benefits. However, more research is needed to fully understand its effects and determine optimal dosages for different uses. As with any supplement, it's important to speak with a healthcare provider before starting to take spirulina.

**Keywords:** Spirulina, treatment.