

### **Recommended Dosage**



### For daily maintenance:

Adults: 1 teaspoon daily

Children 4 and up: 1 teaspoon daily

### Intensive use when sick:

Adults: 1 - 2 Tablespoons daily

Children 4 and up: 1 Tablespoon daily

Refrigerate and keep for up to 6 months

### Warnings

**Unripe or raw fruit** can cause toxic effects such as diarrhea, nausea, and vomiting. In addition, some studies have mentioned a small percentage of people may be allergic to the extract of elder pollen, flowers and berry<sup>1</sup>.

**Pregnant or lactating women s**hould not consume elderberries due to lack of studies and the potential of toxicity<sup>1</sup>.

### References

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- Walkowiak-tomczak D, Staniek H. The Content of Selected Minerals, Bioactive Compounds, and the Antioxidant Properties of the Flowers and Fruit of Selected Cultivars and Wildly Growing Plants of Sambucus nigra L. Molecules. 2020;25(4):1-11.
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- 6. Murray M, Pizzorno J, Pizzorno L. The Encyclopedia of Healing Foods. New York: Atria Books; 2005.

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## ELDERBERRIES

Elderberries (Sambucus nigra) are considered to be a superfood due to their high antioxidant content, vitamins, and minerals. Long before antibiotics existed, elderberries were used as one of the main ingredients in medicinal remedies by medical professionals<sup>2</sup>.

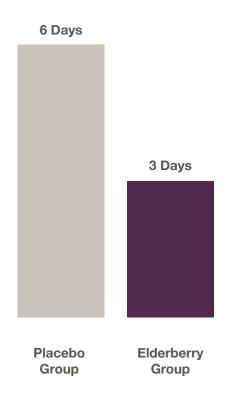
## **Medicinal Uses**

Long before antibiotics existed, elderberries were used as one of the main ingredients in medicinal remedies by medical professionals<sup>2</sup>. New research is focusing on using elderberries to treat and prevent influenza virus A, B (flu), colds, herpes, diabetes, cardiovascular and even cancer<sup>3</sup>.

# Elderberries used to combat the Influenza virus

Elderberries have a quick response in reducing flu symptoms and provides a better outcome when compared with common flu medications<sup>4</sup>. Studies have shown the problem with common medication is that resistance can develop quickly. The influenza virus is able to quickly change its characteristics by antigenic mutation, thus making it difficult for common medication to work effectively<sup>4,2</sup>. However, elderberry syrup has demonstrated to be more effective than common flu medication by protecting the cells from the virus, strengthening the immune system and shortening the duration of symptoms<sup>3</sup>.

## Flu Recovery Time Using Elderberry Syrup



One study compared two groups of people, one group took elderberry syrup for 3 days at the onset of flu symptoms and the other group was given a placebo syrup. The elderberry group significantly reduced their symptoms, including fever, within 2 days. While the placebo syrup group did not show similar improvements until day 6.

Overall the elderberry group had 90% of full recovery within 2-3 days and the placebo group recovered within 6 days<sup>1</sup>.

## **Health Benefits**

Elderberries are considered to be a superfood due to their high antioxidant content, vitamins, and minerals. One of the main bioactive compounds are polyphenols including its subgroups: anthocyanins, and quercetin<sup>3</sup>. These compounds are known to act as antioxidants. Anthocyanins are known to be antibacterial, anti-inflammatory and to protect cells from oxidative stress caused by free radicals and UV irradiation<sup>5</sup>. Quercetin has also been used to treat asthma and allergies due to its ability to inhibit the production of chemicals that cause bronchial muscle to spasm and instead relaxes the muscles6. Other nutrients found in elderberries are the following vitamins: A, C, E, B1, B2, B6, and B9. The following minerals: potassium, magnesium, calcium, phosphorus and some trace minerals: zinc, iron, manganese, and copper.

