

# Elderberry

## Applications

- Immune Support
- Respiratory Support
- Antioxidant Support
- Healthy Inflammatory Response Support



## Introduction

**NutraMedix Elderberry** is made from the berries of black elder (*Sambucus nigra*), which currently belongs to the Viburnaceae family.<sup>1,2</sup> At various times, as the understanding of botany has evolved, elderberry has previously been assigned to the Adoxaceae, Sambucaceae, or Caprifoliaceae families.

**Elderberry** (*S. nigra*) is native to Europe and parts of Asia, though it also thrives in North America and Australia. There are no Latin synonyms, but there are many common names, including European black elder, black elderberry, and others.<sup>3</sup>

Elderberries are rich in polyphenolic compounds, including anthocyanins; flavonols such as quercetin, rutin, and kaempferol; and phenolic acids such as chlorogenic acid.<sup>4,5</sup> Elderberry also contains fatty acids such as eicosanoic acid, phytosterols such as beta-sitosterol, and triterpenoids such as ursolic acid.<sup>5</sup> Polyphenols and anthocyanins make up approximately 80% of elderberry's constituents.<sup>5</sup>

Elderberry also includes vitamins A, B1-B6, and C, as well as the minerals potassium, phosphorus, calcium, magnesium, iron, and zinc.<sup>5</sup> Elderberry macronutrients include fiber; polysaccharides; amino acids such as alanine, glutamic acid, leucine, and tyrosine; and very small amounts of fats.<sup>7</sup> Elderberries also include small amounts of essential oils.<sup>4</sup>

Elderberry is one of the most-utilized herbal plants worldwide and has been employed both nutritionally and in health practices for hundreds of years. It was used extensively in ancient Egypt as well as by the Native Americans.<sup>8</sup> Elderberry is used traditionally for immune support, respiratory support, microbial support, and gastrointestinal support.<sup>3</sup>

**NutraMedix Elderberry** is free of gluten and dairy. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers, including stringent ID testing, microbial testing, and heavy-metal testing. This testing is conducted on both the raw material and after encapsulation.

## Immune Support and Respiratory Support

**Elderberry** (*S. nigra*) may help with immune support, attributed to the anthocyanins cyanidin 3-glucoside and cyanidin 3-sambubioside.<sup>9</sup>

In a small meta-analysis of four studies with a total of 180 patients, elderberry was found to significantly support and maintain respiratory health, attributed to its immune and microbial support.<sup>9</sup>

In a double-blind, randomized, placebo-controlled trial, 312 participants undergoing inter-continental air travel were randomly assigned to

a standardized elderberry extract or a placebo. At the end of the study, compared to the placebo group, the elderberry group experienced significant support of respiratory health.<sup>10</sup>

In a multicenter, placebo-controlled trial, 60 participants ages 18-54 were randomly assigned to elderberry syrup or a placebo syrup. At the end of the study, compared to the placebo group, the elderberry group experienced significant support for respiratory health.<sup>11</sup>

## Other Support

### Antioxidant Support

Elderberry (*S. nigra*) may help support endogenous antioxidant systems, as quantified by DPPH assay in preclinical studies.<sup>12</sup> Elderberry anthocyanins may help maintain reactive oxygen species (ROS), reactive nitrogen species (RNS), superoxide dismutase (SOD), glutathione peroxidase (GPx), and NADPH oxidase 4 (NOX4) already within the normal range.<sup>6</sup>

### Healthy Inflammatory-Response Support

Elderberry (*S. nigra*) is used traditionally for healthy inflammatory-response support, which

has been attributed to the constituents quercetin, cyanidins, and phenolic acids.<sup>4</sup> In laboratory studies, cells treated with an elderberry extract showed healthy levels of nitric oxide in a dose-dependent manner.<sup>6</sup>

## Safety and Cautions

Elderberry (*S. nigra*) is generally recognized as safe (GRAS) in the U.S., though the European Medicines Agency (EMA) recommends limiting use in children less than 12 years old, and during pregnancy and lactation.<sup>4</sup>

Elderberry is generally well tolerated, and adverse effects are rare.<sup>3,4</sup> While there are no known drug interactions, elderberry may theoretically oppose the effects of immunosuppressant medications.<sup>3</sup>

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

\*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.

## References

- <sup>1</sup>World Flora Online (WFO). (n.d.) <https://www.worldfloraonline.org/search?query=Sambucus+nigra>.
- <sup>2</sup>Plants of the World Online (POWO). (n.d.) <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:30122169-2>.
- <sup>3</sup>NatMed Pro. (2023). Elderberry [monograph]. <http://naturalmedicines.therapeuticresearch.com>.
- <sup>4</sup>Stępień, A.E., Trojniak, J., et al. (2023). *Molecules*, 28(17), 6235.
- <sup>5</sup>Sandu-Balan, A., Ifrim, I.-L., et al. (2024). *Molecules*, 29, 498.
- <sup>6</sup>Osman, A.G., Avula, B., et al. (2023). *Molecules*, 28(7), 3148.

- <sup>7</sup>Pascariu, O.-E., Israel-Roming, F., et al. (2022). *Processes*, 10, 2288.
- <sup>8</sup>Porter, R.S., & Bode, R.F. (2017). *Phytotherapy Research*, 31(4), 533-554.
- <sup>9</sup>Hawkins, J., Baker, C., et al. (2019). *Complementary Therapies in Medicine*, 42, 361-365.
- <sup>10</sup>Tiralongo, E., Wee, S.S., et al. (2016). *Nutrients*, 8(4), 182.
- <sup>11</sup>Zakay-Rones, Z., Thom, E., et al. (2004). *The Journal of International Medical Research*, 32(2), 132-140.
- <sup>12</sup>Nurzyńska-Wierdak, R., Najda, A., et al. (2022). *Acta Scientiarum Polonorum Hortorum Cultus*, 21(2), 143-156.

**NutraMedix**

**ELDERBERRY**  
IMMUNE SUPPORT †

Dietary Supplement  
60 Vegetable Capsules

**Supplement Facts**  
Serving Size 1 Capsule  
Servings Per Container 60

Amount Per Serving	% Daily Value
Elderberry (5:1 Concentrate) ( <i>Sambucus nigra</i> ) (Fruit)	500 mg *

\*Daily Value not established

**Other ingredients:** Vegetable Capsule, Vegetable Magnesium Stearate  
**GLUTEN, SUGAR & DAIRY FREE**

**NutraMedix**  
Jupiter, Florida 33458 USA  
[www.nutramedix.com](http://www.nutramedix.com)  
561-745-2917

KEEP OUT OF REACH OF CHILDREN  
STORAGE: Keep tightly closed in a dry place at room temperature. (59-86°F or 15-30°C)  
SUGGESTED USE: Take one capsule once or twice daily after a meal or as directed by your physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop.

†These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

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DAIRY FREE GLUTEN FREE

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