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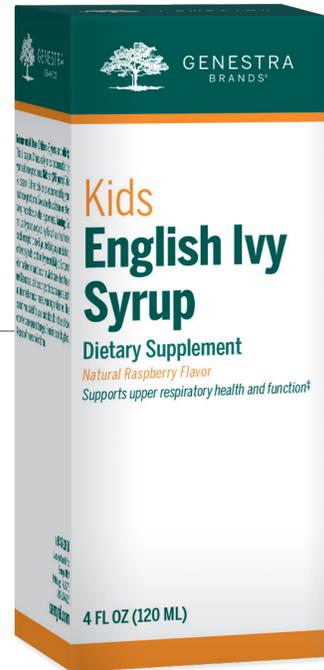
# Kids English Ivy Syrup

## Dietary Supplement

### Herbal combination supporting upper respiratory immune health in kids<sup>‡</sup>

- Includes a soothing blend of English ivy, marshmallow and elderberry extracts
- Supports upper respiratory health and function<sup>‡</sup>
- Promotes oropharyngeal mucosal health and comfort<sup>‡</sup>
- Delicious natural raspberry flavor
- Convenient liquid formula suitable for children 3 years and older

Kids English Ivy Syrup is a great-tasting combination of herbs traditionally used to support upper respiratory and immune health. It provides English ivy, an important source of α-hederin, which has been shown to support surfactant secretion and bronchiole function in preclinical research. Clinical trials have also demonstrated the beneficial effects of English ivy on supporting respiratory function in children. A mucilaginous herb, marshmallow contains polysaccharides that coat the mucosal lining of the respiratory tract. Clinical research supports its traditional use as a demulcent, promoting oropharyngeal mucosal health and providing soothing comfort to the airway. Kids English Ivy Syrup also includes elderberry, an herb well-recognized for its high anthocyanin content. Elderberry is traditionally used to help maintain a healthy immune system, providing specific support to the upper respiratory tract. Available in a delicious natural raspberry flavor, Kids English Ivy Syrup is a convenient way of supporting upper respiratory function and mucosal comfort in children.<sup>‡</sup>



#### Supplement Facts

Serving Size 3-5 years: ½ Teaspoon (2.5 ml); 6+ years: 1 Teaspoon (5 ml)  
Servings per Container 3-5 years: 48; 6+ years: 24

	Amount Per 1 tsp.	% DV for Children 6+ Years (1 tsp.)	Amount Per ½ tsp.	% DV for Children 3 Years (½ tsp.)	% DV for Children 4-5 Years (½ tsp.)
Calories	10		5		
Total Carbohydrate	2 g	1% <sup>^</sup>	1 g	1% <sup>^^</sup>	<1% <sup>^</sup>
Marshmallow ( <i>Althaea officinalis</i> ) Root Extract (4:1)	125 mg	*	62.5 mg	*	*
English Ivy ( <i>Hedera helix</i> ) Leaf Extract (4-7:1)	40 mg	*	20 mg	*	*
European Elder ( <i>Sambucus nigra</i> subsp. <i>nigra</i> ) Fruit Extract (16:1)	25 mg	*	12.5 mg	*	*

\* Daily value (DV) not established

<sup>^</sup> Percent daily values are based on a 2,000 calorie diet

<sup>^^</sup> Percent daily values are based on a 1,000 calorie diet

Other ingredients: Purified water, glycerin, xylitol, natural flavors, citric acid, xanthan gum, potassium sorbate

**Recommended Dose: Children (6 years and older):** Take 1 teaspoon 3 times daily or as recommended by your healthcare practitioner.

**Children (3-5 years):** Take ½ teaspoon 3 times daily or as recommended by your healthcare practitioner. Take a few hours before or after taking medications or other supplements.

**Product Size:** 4 fl oz (120 ml)

**Product Code:** 07645



Non  
GMO



Gluten  
Free



Dairy  
Free



Vegan

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The information contained herein is for informational purposes only and does not establish a doctor-patient relationship. Please be sure to consult your physician before taking this or any other product. Consult your physician for any health problems.

<sup>‡</sup> 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.

# Kids English Ivy Syrup

## Dietary Supplement

### Scientific Rationale:

English ivy (*Hedera helix*) has a long history of traditional use.<sup>1†</sup> It is primarily known for its ability to support upper respiratory tract health and function.<sup>1†</sup> It contains a wide variety of bioactive compounds, including flavonoids, phenolic acids and saponins, which contribute to the beneficial effects of the herb on the respiratory system.<sup>1†</sup>

Saponins are the primary bioactive ingredient in English ivy.<sup>1</sup> One important saponin known as hederacoside C is converted to  $\alpha$ -hederin after it is reabsorbed into the blood.<sup>1,2</sup> *In vitro* research suggests that  $\alpha$ -hederin targets cells in the lung to increase the secretion of surfactant (a lipoprotein complex required for the elastic properties of the lung).<sup>1†</sup>  $\alpha$ -Hederin may also support respiratory function by promoting smooth muscle relaxation in the bronchioles.<sup>2,3†</sup> In addition, the phenolic acids and flavonoids present in English ivy may help target regulatory pathways in the airway to further support respiratory health.<sup>1†</sup>

Clinical trials have evaluated the beneficial effects of English ivy extract on respiratory health.<sup>†</sup> A recent review article reported that supplementation with English ivy extract in children significantly supported respiratory function when compared to a placebo.<sup>4†</sup> Additional studies have noted the high tolerability and compliance associated with English ivy supplementation.<sup>5-7†</sup>

Marshmallow (*Althaea officinalis*) has been used traditionally in Europe for more than 2,000 years.<sup>7†</sup> As this mucilaginous herb coats the mucosal lining of the respiratory tract, it is primarily used as a demulcent to support oropharyngeal mucosal health and comfort, as well as respiratory function.<sup>7,8†</sup>

*In vitro* research suggests that marshmallow contains a variety of polysaccharides that can adhere to epithelial tissue.<sup>8†</sup> These polysaccharides form a protective layer on the mucosa to support mucosal

comfort.<sup>8†</sup> One type of polysaccharide known as rhamnogalacturonan was also shown to support upper respiratory function in guinea pigs.<sup>9†</sup> Preclinical research suggests that this polysaccharide may support the respiratory system by regulating the serotonergic 5-HT<sub>2</sub> receptor, which is present on airway smooth muscle and sensory nerves, and may have a role in respiratory control.<sup>9†</sup> Furthermore, research in animals suggests that marshmallow polysaccharides may have immunomodulatory effects, such as stimulating phagocytic activity in macrophages.<sup>8†</sup>

Clinical research has demonstrated the soothing effects of marshmallow extracts on respiratory health.<sup>8†</sup> One randomized, placebo-controlled trial reported that daily supplementation with marshmallow for four weeks significantly supported upper respiratory function.<sup>10†</sup> Similarly, supplementation with marshmallow root in children was found to significantly support upper respiratory health and function within three days.<sup>8†</sup> Collectively, these studies support the traditional use of marshmallow in supporting oral and pharyngeal mucosal comfort and upper respiratory function.<sup>8†</sup>

Elderberry (*Sambucus nigra*) has been traditionally used since ancient times.<sup>11†</sup> It is used to help maintain immune health, particularly in the upper respiratory tract.<sup>11†</sup> Two placebo-controlled trials have demonstrated that elderberry supplementation helped maintain immune health and was well-tolerated by participants.<sup>11†</sup> Similarly, a recent review concluded that elderberry is a promising supplement for supporting immune health.<sup>12†</sup> Elderberry is well-known for its high concentration of anthocyanins and flavonols, such as cyanidin 3-glucoside and cyanidin 3-sambubioside.<sup>11</sup> In addition to their antioxidant effects, preliminary evidence suggests that these flavonoids may contribute to supporting a healthy immune response.<sup>11,13-14†</sup>

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