



Available in 60 vegetarian capsules

- Supports healthy cortisol levels, a biomarker of stress
- Temporarily relieves symptoms of perceived stress
- Helps reduce the symptoms of stress, such as fatigue, sleeplessness, irritability and inability to concentrate

## Discussion

Cortisolv is a multifunctional herbal supplement that has far-reaching and complementary benefits for individuals seeking help in dealing with everyday stress. It features a unique combination of clinically tested and patented ingredients, including Relora®, Sensoril®, and Suntheanine®, along with banaba leaf and maral extracts. Together, these herbs help the overstressed body and mind work toward their normal state of balance and resolve many of the biochemical changes that occur as a result of repeated, frequent exposure to stressors and cortisol.\*

**Relora®** is a patented and proprietary blend of *Magnolia officinalis* and *Phellodendron amurense* bark extracts standardized to honokiol and berberine, respectively. These herbs have a history of traditional use in treating stress and occasional feelings of anxiousness. In modern times, they and their actives (honokiol and berberine) are used to support relaxation and reduce the perception of stress and stress-related eating. Rodent stress studies demonstrate a reduction in induced feelings of anxiousness.<sup>[1,2]</sup> Human studies demonstrate positive changes in DHEA (dehydroepiandrosterone) and cortisol levels, less weight gain (compared to controls), and reductions in perceived stress and transitory feelings of anxiousness in subjects taking Relora (500 mg to 750 mg for four to six weeks).<sup>[2-5]</sup> As an example, cortisol exposure and psychological mood states were studied in 56 subjects (35 men and 21 women) taking Relora (250 mg twice daily) or placebo. After four weeks of supplementation, salivary cortisol exposure was significantly ( $p < 0.05$ ) lower (−18%) in the Relora group compared to placebo. The Relora group also had significantly better ( $p < 0.05$ ) mood state parameters, including lower indices of overall stress (−11%), tension (−13%), anger (−42%), occasional fatigue (−31%), and confusion (−27%), and higher indices of global mood state (+11%) and vigor (+18%).<sup>\*[3]</sup>

**Sensoril®** is an optimized ashwagandha (*Withania somnifera*) root and leaf extract that represents a major advancement in ashwagandha preparations. Sensoril's proprietary and patented extraction process produces very high, powerful levels of stress-fighting, cognition-enhancing ashwagandha bioactive constituents. In fact, Sensoril is standardized to a minimum of 10% glycowithanolides. Sensoril's excellent safety record is one of the most comprehensive of any ashwagandha ingredient sold.\*

Ashwagandha has been revered as an adaptogen for thousands of years. It is used to balance, energize, and revitalize the body and for its value as a cognition enhancer. Sensoril possesses multiple health benefits, and its superior efficacy has been demonstrated in randomized, double-blind, placebo-controlled human clinical trials.<sup>[6-10]</sup> The results of these trials revealed that Sensoril, taken in doses of 500 to 1000 mg/d, supported healthy cortisol and

DHEA levels; enhanced working memory, reaction time, and cognitive capacity; improved auditory-verbal working memory; ameliorated negative changes in cardiovascular parameters associated with mental stress; and improved endothelial function and glucose and lipid metabolism.\*

**Suntheanine®** is a pure form of L-theanine that is produced via a patented fermentation process, resulting in a 100% pure L-isomer-theanine. Clinical research suggests that 50 to 200 mg/d of Suntheanine naturally stimulates activity in the brain known as alpha waves, which are associated with a relaxed but alert mental state.<sup>[11]</sup> L-theanine had significant anti-stress effects on experimental animals under psychosocial stress.<sup>[12]</sup> In humans, similar results were observed wherein L-theanine helped the body resist biochemical changes associated with stress.<sup>[13,14]</sup> In a randomized, double-blind, placebo-controlled trial, a high dose of Suntheanine (400 mg/d) given to boys, aged 8-12 years, improved aspects of sleep quality, including significantly higher sleep percentage and sleep efficiency scores as well as a non-significant trend for less activity during sleep.<sup>\*[15]</sup>

**Banaba Leaf (1% Corosolic Acid) and Maral Extracts** Banaba leaf (*Lagerstroemia speciosa*) has a long history of use in folk medicine, particularly in Southeast Asia, as a glucose modulator. More recently, animal and human research on banaba leaf and its actives, including corosolic acid, suggest multiple mechanisms that influence glucose and lipid metabolism.<sup>[16,17]</sup> Furthermore, corosolic acid inhibits the enzyme that facilitates the conversion of cortisone to cortisol.<sup>[18]</sup> Maral extract (*Rhaponticum carthamoides*) has been widely used in traditional Siberian medicine, mainly to treat overstrain and common weakness resulting from illness. It has also been used historically as a stimulant and a remedy to support male sexual function.<sup>\*[19]</sup>

The principal bioactive constituents of this plant are ecdysteroids, flavonoids, and phenolic acids.<sup>[20]</sup> A review of maral chemistry and pharmacology calls it an "adaptogenic herbal remedy."<sup>[20]</sup> Furthermore, preliminary animal research suggests that maral lowers corticosterone levels and positively influences glucose and fat metabolism.<sup>\*[19]</sup>

## Cortisolv®

### Medicinal Ingredients (per vegetable capsule):

Relora®† (a proprietary blend of a patented†† extract from <i>Magnolia officinalis</i> bark and a proprietary extract from <i>Phellodendron amurense</i> bark)(8.5% Honokiol; 2.5% Berberine) .....	250 mg
Sensoril® Ashwagandha ( <i>Withania somnifera</i> ) Root and Leaf Extract (32% Withania oligosaccharides; 10% withanolides) .....	150 mg
Suntheanine® L-Theanine .....	100 mg
Banaba Leaf Extract ( <i>Lagerstroemia speciosa</i> )(1% corosolic acid) .....	48 mg
Maral Extract ( <i>Rhaponticum carthamoides</i> )(root) .....	50 mg

### Non-Medicinal Ingredients:

HPMC (capsule), L-leucine, ascorbyl palmitate, medium-chain triglyceride oil, silica, microcrystalline cellulose.  
Sensoril® is a trademark of Natreon, Inc. and is protected under US patents 6,153,198 and 7,318,938.

### Recommended Dose

**Adults:** Take one capsule twice daily or as directed by your healthcare practitioner. Consult a healthcare practitioner for use beyond two weeks.

Consult a healthcare practitioner prior to use if you are taking prescription medication, if you have a kidney disorder, if you have blood pressure problems or if you suffer from any psychological disorder and/or condition such as frequent anxiety or depression. Concomitant use with herbs, supplements and medications that have sedative properties might increase the risk of excessive drowsiness.

Do not use if you are pregnant or breastfeeding. Consumption with alcohol, other medications or natural health products with sedative and/or analgesic properties is not recommended.


May cause heartburn, shaking hands, perioral numbness, sexual dysfunction and thyroid dysfunction. Some people may experience drowsiness. Exercise caution if operating heavy machinery, driving a motor vehicle or engaging in activities requiring mental alertness.

**Storage:** Keep tightly closed in a cool, dry place out of reach of children.

**Does Not Contain:** Wheat, gluten, yeast, soy, dairy products, fish, shellfish, peanuts, tree nuts, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

 Suntheanine®, a patented form of L-Theanine, is a trademark of Taiyo International, Inc.



 Relora® is a registered trademark of NPI, LLC.  
††US patent 6,582,735

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Additional references available upon request

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