



# Calcium, magnesium and multi-herbal formulation

- Helps to maintain normal muscle function\*
- Passionflower and lemon balm are traditionally used as sleep aids\*
- Chaste tree is traditionally used to promote healthy mood balance and breast comfort during the menstrual cycle, maintain menstrual regularity and support menopausal comfort\*

## **Improved formula**

- Improved source of calcium now provides 70 mg of calcium citrate
- Increased amount of magnesium now offers 70 mg of dimagnesium malate
- Added lemon balm and chaste tree fruit extract
- Removed magnesium stearate

LSP is a calcium-magnesium formula that combines three plants with long histories of traditional use. Passionflower and lemon balm are traditionally used as sleep aids. Preclinical research suggests that these extracts may regulate the activity of GABA, the primary inhibitory neurotransmitter in the brain, to provide calming support that aids sleep. In addition, chaste tree is traditionally used to help maintain menstrual regularity, while supporting menstrual and menopausal comfort. Clinical trials have demonstrated that supplementation with chaste tree berry extract for three months significantly promotes healthy mood balance and breast comfort during the menstrual cycle. LSP also offers calcium and magnesium for their essential roles in maintaining healthy muscle contractile function and supporting bone health.\*



Supplement Facts Serving Size 1 Capsule Servings per Container 120		
Each Serving Contains		%DV
Calcium (as calcium citrate)	70 mg	5%
Magnesium (as dimagnesium malate)	70 mg	17%
Passionflower ( <i>Passiflora incarnata</i> ) Aerial Parts Extract (4-6:1) 100-150 mg Dried Equivalent	25 mg	t
Lemon Balm ( <i>Melissa officinalis</i> ) Herb Top Extract (4-6:1) 100-150 mg Dried Equivalent	25 mg	t
Chaste Tree (Vitex agnus-castus) Fruit Extract (7-10:1)	15 mg	t
<sup>†</sup> Daily Value (DV) not established		

Other ingredients: Hypromellose, ascorbyl palmitate, silica

**Recommended Adult Dose:** Take one capsule daily with a meal, a few hours before or after taking medications or other supplements, or as recommended by your healthcare practitioner.

Product Size: 120 Vegetable Capsules Product Code: 05516A

NON DAIRY GLUTEN GRO FREE

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.

\*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.

## Scientific Rationale:

#### Passionflower

Passionflower has a long history of traditional use as a sleep aid.1\* Preclinical research suggests that passionflower promotes feelings of calm, which may in turn improve sleep quality.<sup>2\*</sup> These effects may be due to the active compounds present in passionflower, such as amino acids, alkaloids and flavonoids such as chrysin, which can bind GABA receptors.<sup>1\*</sup> GABA is the primary inhibitory neurotransmitter in the brain, and activating GABA receptors may enhance slow wave (deep) sleep.3\* Passionflower may also contain GABA itself, which would provide additional calming support to aid sleep.2\*

#### Lemon balm

Lemon balm is also traditionally used as a sleep aid.<sup>4\*</sup> It contains a wide variety of active compounds, including polyphenolics, flavonoids and triterpenes.<sup>1</sup> Specifically, in vitro research has reported that the bioactive compounds rosmarinic acid, ursolic acid and oleanolic acid present in lemon balm can inhibit the activity of GABAtransaminase.<sup>1</sup> This enzyme is involved in the conversion of GABA to succinate, which can enter the Krebs cycle for energy production.<sup>1</sup> By helping to maintain GABA levels, lemon balm may promote calmness to aid sleep.1\*

#### Chaste tree

Chaste tree is a plant traditionally used to help support premenstrual comfort and maintain menstrual regularity.5\* Chaste tree may act to promote hormonal balance by regulating the levels of estrogen, prolactin and progesterone.<sup>6\*</sup> In clinical trials, supplementation with this extract for three months has been shown to significantly support menstrual comfort, including promoting healthy mood balance and breast comfort during the menstrual cycle.7-9\* Similarly, chaste tree is traditionally used to help support menopausal comfort.<sup>10\*</sup> Research suggests that chaste tree may help mediate hot flushes and mood balance during menopause by regulating dopamine, a neurotransmitter involved in temperature regulation and cognitive function.10\*

### Magnesium

As the second most abundant cation inside cells, magnesium participates in nearly all key intracellular metabolic processes.<sup>11</sup> Magnesium plays a critical role in maintaining muscle function by helping to regulate oxygen uptake, energy production and electrolyte balance.<sup>12\*</sup> This mineral also regulates calcium transport and binding to further influence muscle contractions.<sup>11\*</sup> Low levels of magnesium have been associated with hypercontractibility, which can present as muscle cramps and spasms.<sup>11\*</sup> In addition to its important role in muscles, magnesium also promotes the differentiation of bone-forming osteoblast cells to support bone health.<sup>11\*</sup> Although it is a necessary mineral for human health, many Americans do not consume adequate levels of magnesium each day.<sup>11,13</sup> This may result from magnesium losses during food processing or the use of mineral-deficient soil in agriculture.<sup>11</sup> As magnesium excretion increases with age and after strenuous exercise, elderly individuals and athletes may also benefit from magnesium supplementation.<sup>12,14\*</sup> LSP provides a source of magnesium to help contribute to the recommended dietary allowance.

#### Calcium

Similarly, calcium's role in bone health has been well-documented.<sup>14\*</sup> It is the most abundant mineral in the skeleton, where it acts as an important structural component of bones and teeth.<sup>15,16</sup>\* Research has demonstrated that calcium supplementation also helps to increase calcium balance and bone mineral density, while supporting bone health during aging.<sup>17</sup>\* In addition, calcium plays an important role in maintaining proper muscle and vascular function.<sup>18\*</sup> As many Americans do not consume adequate levels of calcium from the diet, LSP can help contribute to the recommended dietary allowance.<sup>19</sup>

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