

# Calm CP®

Decreases cortisol levels and provides ingredients important for calm, sleep, and management of blood sugar\*

#### Patient Profile†

- ☐ Experiencing stress (acute, sustained or immune)\*
- ☐ Consistently interrupted sleep\*
- Difficulty falling back asleep\*
- ☐ New or increasing abdominal fat\*



### Lagerstroemia speciosa (Banaba) leaf extract (18% corosolic acid)

- Corosolic acid selectively inhibits 11β-hydroxysteroid dehydrogenase 1 (11β-HSD1)<sup>1\*</sup>
- 11β-HSD1 catalyzes the conversion of cortisone into cortisol<sup>2</sup>

## Phosphatidylserine<sup>‡</sup>

- Component of cell membranes important for receptor-mediated interactions<sup>4\*</sup>
- Phosphatidylserine is thought to interact with cell membranes in order to dampen hypothalamic signaling and regulate the stress response<sup>5\*</sup>

## Glycine

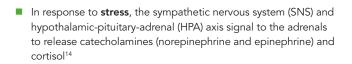
- Major inhibitory neurotransmitter that crosses the blood-brain barrier<sup>6\*</sup>
- Binds receptors that regulate temperature during sleep<sup>7\*</sup>

### **Taurine**

- Neuroprotective amino acid that provides antioxidant protection<sup>8,9\*</sup>
- Demonstrates GABA-A agonist activity<sup>10\*</sup>
- GABA is the primary inhibitory neurotransmitter in the brain important for calm and sleep<sup>11-13</sup>

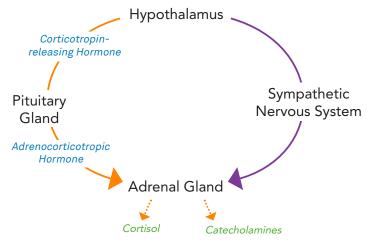


# The Science



 Prolonged stress is associated with dysregulation of the HPA axis, which can affect catecholamine and cortisol levels<sup>15</sup>

# NeuroAdrenal Response



Green = Biomarker

Blue = Hormone

Orange = Hypothalamic-Pituitary-Adrenal (HPA) axis

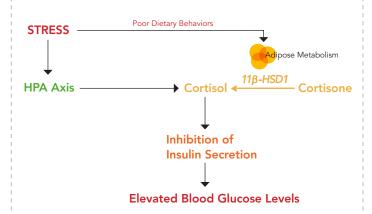
Purple = Sympathomedullary Pathway

† Symptom depictions represent a possible presentation based on scientific information and claims found on this sheet, references provided on reverse.

\*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.

### ORE SCIENCE BEHIND C. A L M

Figure 1. HPA Axis and Cortisol Metabolism



### Stress, cortisol, and weight

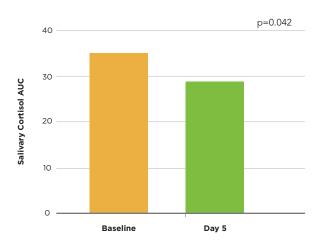
Cortisol secretion follows a marked circadian pattern and increases in response to stress through activation of the HPA axis16

Adipocytes (fat cells) play a major role in the body's production of cortisol17

### High stress has been linked to less healthy dietary behaviors and increased body weight<sup>18</sup>

- Cortisol inhibits the secretion and actions of insulin (glucose uptake, central appetite reduction)19
- Cortisol promotes the maturation of adipocytes (fat cells)<sup>20</sup>
- Upregulation of the enzyme 11β-HSD1 promotes fat accumulation by increasing cortisol levels<sup>20</sup>
- Elevated bedtime cortisol levels are associated with increased abdominal fat21

Figure 2. Calm CP Lowers Cortisol<sup>22\*</sup>



#### Proven benefits of Calm CP

A randomized study with corosolic acid was shown to significantly lower blood glucose levels3\*

- 10 subjects were prescreened and selected to receive corosolic acid once daily for 15 days3
- Blood glucose levels were 20-30% lower after two weeks<sup>3\*</sup>

### The effectiveness of Calm CP was analyzed in a study

- Participants were prescreened for elevated cortisol levels
- Calm CP (2 capsules twice daily for 4 days) significantly lowered total daily cortisol levels (area under the curve - AUC) compared to baseline values (Figure 2)22\*
- Calm CP decreased mean daily cortisol levels by 17%<sup>22\*</sup>
- 71% of participants reported they would take Calm CP again





Item Number	Available Sizes	Serving Size
2099	60 Capsules	2 Capsules

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- Glade M and Smith K. Nutrition. 2015;31(6):781-6. Kawai N, et al. Amino Acids. 2012;42(6):2129-37.
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# Concerned about memory?

Learn more about ImmuWell at www.neuroscienceinc.com/products/immuwell

- Mohler H. Neuropharmacology. 2012;62(1):42-53. Saper C, et al. Nature. 2005;437(7063):1257-63. Lee D, et al. BMB Rep. 2015;48(4):209-16.

- Lee B, et al. Birth Rep. 2013/04/1203-10.
  Krizanova O, et al. Stress. 2016;19(4):419-28.
  Elder G, et al. Sleep Med Rev. 2014;18(3):215-24.
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  Moore C and Cunningham S. J Acad Nutr Diet. 2012;112(4):518-26.
- Andrews R and Walker B. Clin Sci (London). 1999;96(5):513-23. Peckett A, et al. Metabolism. 2011;60(11):1500-10. Abraham S, et al. Obesity (Silver Spring). 2013;21(1):E105-17.
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