## **METABOLIC HORMONE**

Developed with Dr. Penny Kendall-Reed, N.D.\*

#### **Protocol Objective:**

To help manage metabolic hormones and healthy body weight using symptom assessment, diet, and supplementation. Recommendations are made for genetic testing of metabolic SNPs (Single Nucleotide Polymorphisms) that are modifiable through nutrition and lifestyle.<sup>‡†</sup>

CLINICAL OBJECTIVE <sup>‡</sup>	ASSESSMENT	PRODUCT RECOMMENDATIONS*	DOSING
Support satiety	Serum leptin, adiponectin, ghrelin Self-reported food cravings, hunger, excessive eating, especially when stressed	<b>Metabolic Lean®</b> Formula: 202575	1 capsule 30 minutes before breakfast and 1 capsule 30 minutes before dinner
		<b>Sereniten Plus</b> Formula: 201348	1 capsule daily
Support leptin sensitivity	Serum leptin Self-reported postprandial hunger and food cravings, especially in the evening BMI	<b>Metabolic Lean®</b> Formula: 202575	1 capsule 30 minutes before breakfast and 1 capsule 30 minutes before dinner
		<b>L-Carnosine</b> Formula: 9873	1 capsule daily
		<b>Sereniten Plus</b> Formula: 201348	1 capsule daily
Support ghrelin	Serum ghrelin, BMI and self-reported hunger, cravings and excessive eating,	<b>Metabolic Lean®</b> Formula: 202575	1 capsule 30 minutes before breakfast and 1 capsule 30 minutes before dinner
Support girloun	especially when stressed	<b>Cal/Mag 2001</b> Formula: 2002	2 tablets daily with food
Support melanocortin 4	BMI Fasting glucose, HbA1c, and/or related metabolic testing Self-reported postprandial hunger and food cravings; libido	L-Carnosine, Sereniten Plus Formulas: 98731, 201348	1 capsule daily
		<b>Metabolic Lean®</b> Formula: 202575	1 capsule 30 minutes before breakfast and 1 capsule 30 minutes before dinner
		<b>Cal/Mag 2001</b> Formula: 2001	2 tablets daily with food

\*Please note that patients may not require all supplements listed.

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+ Dr. Penny Kendall-Reed is a retained advisor to Douglas Laboratories.

<sup>†</sup>Provides weight management support as part of a healthy lifestyle with a reduced calorie diet and regular exercise.

The information contained herein is for informational purposes only and does not establish a doctor-patient relationship.

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#### SUPPORT PROTOCOL<sup>‡</sup>

CLINICAL OBJECTIVE <sup>‡</sup>	ASSESSMENT	PRODUCT RECOMMENDATIONS*	DOSING
Modulate PPAR (Peroxisome Proliferator Activated Receptor)	BMI or body composition	L-Carnosine, Sereniten Plus Formulas: 98731, 201348	1 capsule daily
	Self-reported energy level, cognitive function	<b>Resveratrol</b> Formula: 200244	1 capsule daily
Adrenal support for hyperadrenal states	Orthostatic vital sign measurement Self-reported sleep quality	Sereniten Plus Formula: 201348	1 capsule daily
		<b>Melatonin P.R.</b> Formula: 83199	1 tablet, 1 hour before bedtime
	Self-reported stress, irritability	<b>Sereniten Plus</b> Formula: 201348	1 capsule daily
	BMI	<b>GABA</b> Formula: 80611	1 capsule daily
Adrenal support for hypoadrenal states	Orthostatic vital sign measurement Cortisol levels Self-reported sleep quality BMI	Sereniten Plus Formula: 201348	1 capsule daily
		Adrenplus-300 Formula: 7221 OR AdrenoMend <sup>™</sup> Formula: 200529	1-2 capsules daily 2-4 capsules daily
		<b>Melatonin</b> Formulas: Various	6-9 mg before bed
Healthy stress response	Cortisol levels Monitor levels: DHEA Estradiol Progesterone Bioavailable testosterone	<b>Sereniten Plus</b> Formula: 201348	1 capsule daily
		Relora®-Plex Formula: 98739 OR GABA Formula: 80611	1 capsule, twice daily 1 capsule daily
		<b>Sereniten Plus</b> Formula: 201348	1 capsule daily

Available for download at: douglaslabs.com/protocols

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<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.

