

# METABOLIC HORMONE | SUPPORT PROTOCOL<sup>†</sup>

[ Developed by Dr. Penny Kendall-Reed ]<sup>††</sup>

## Protocol Objectives:

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	Select from the Following Recommendations <sup>**</sup>	Dosing
<b>Support Adiponectin<sup>†</sup></b>	Patient presents with increased weight gain, bloating and fatigue after consuming carbohydrates, unstable blood sugars and increased serum lipids despite a good diet, and/or fast weight loss with caloric restriction.  Assess for low adiponectin level  Genetic SNPs: ADIPOQ (rs17300539), ADIPOQ (rs17366568)	<b>Tri-Metabolic Control™</b>	2 capsules 30 minutes before meals (2-3 meals daily)
		<b>L-Carnosine</b>	500 mg twice daily 30 minutes before meals
<b>Support Leptin Sensitivity<sup>†</sup></b>	Patient has general food cravings (no specific food) but is never satiated. Desire to keep eating even when full. Weight and BMI classified as obese.  Assess for low leptin level  Genetic SNPs: LEPR (rs8179183), LEPR (rs2025804), LEP (rs2167270), LEP (rs7796202), FTO (rs9939609), FTO (rs1121980)	<b>Tri-Metabolic Control™</b>	2 capsules 30 minutes before meals (2-3 meals daily)
		<b>L-Carnosine</b>	500 mg twice daily 30 minutes before meals
		<b>Sereniten Plus</b>	1 or 2 capsules twice daily without food. No snacking.
<b>Support Melanocortin 4<sup>†</sup></b>	Patient presents with obese status, insulin sensitivity, abnormal hunger and satiety signals, and increased weight gain from antipsychotic drugs, and/or low sex drive and poor erections.  Assess for low melanocortin 4 level  Genetic SNP: MC4R (rs17782313)	<b>Tri-Metabolic Control™, L-Carnosine, Sereniten Plus</b>	Refer to dosing recommendations above
		<b>Cal/Mag 2001</b>	2 tablets daily with food. No snacking, higher lean protein, low sugar
<b>Modulate PPAR<sup>†</sup> (Peroxisome Proliferator Activated Receptor)</b>	Patient presents with increased weight gain, poor fatty acid metabolism, low energy, increased adipose deposits (cellulite and dimpling under skin surface) and in CV system, and/or more rapid cognitive decline with age.  Genetic SNP: PPARG (rs1801282)	<b>Tri-Metabolic Control™, L-Carnosine, Sereniten Plus</b>	Refer to dosing recommendations above
		<b>Resveratrol</b>	1-2 capsules twice daily on an empty stomach
<b>Adrenal Support for Hyperadrenal States<sup>†</sup></b>	Orthostatic BP more than +15mm Hg  Patient presents with racing thoughts, difficulty falling asleep, irritability and restlessness, and/or weight gain.  Assess for high glucocorticoid/cortisol levels  Genetic SNPs: ADRA2B (rs442564), ADRA2B (rs283650317), ADRA2A (rs10885122), COMT (rs4860)	<b>Sereniten Plus</b>	1 or 2 capsules twice daily without food
		<b>Melatonin Prolonged Release</b>	3-9 mg before bed
		<b>Seditol® Plus</b>	2 capsules before bed if falling asleep is difficult, and 1 on waking in the middle of the night
		<b>GABA</b>	500 mg twice daily without food (optional)
<b>Adrenal Support for Hypoadrenal States<sup>†</sup></b>	Orthostatic BP less than +5mm Hg  Patient presents with feeling light headed on standing, fatigue, sleeping 8-9 hours but waking exhausted, weight gain.  Assess for low glucocorticoid/cortisol levels  Genetic SNPs: ADRA2B (rs442564), ADRA2B (rs283650317), ADRA2A (rs10885122), COMT (rs4860)	<b>Sereniten Plus</b>	2 capsules twice daily with a gradual decrease to 1 twice daily without food
		<b>Adrenplus-300</b> or <b>AdrenoMend™</b>	1-2 capsules daily  2-4 capsules daily
		<b>Melatonin</b>	6-9 mg before bed
<b>Healthy Stress Response<sup>†</sup></b>	Assess for high cortisol with low DHEA levels while monitoring DHEA, estradiol, progesterone and bioavailable testosterone	<b>Sereniten Plus</b>	1 or 2 capsules twice daily (1 daily as maintenance)
		<b>Relora®-Plex</b> or <b>GABA</b>	1 capsule twice daily  500-1,000 mg daily without food

<sup>\*\*</sup>Where multiple supplements are suggested, please note that the patient may not require all of them.

<sup>††</sup>Dr. Penny Kendall-Reed has been retained as a consultant in advising Douglas Laboratories. She is compensated for this service.

This protocol is intended for use by healthcare practitioners, 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.

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<sup>†</sup>These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

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