Stress Management & Relaxation Protocol‡

DEVELOPED WITH JAMES GREENBLATT M.D.+

James Greenblatt, MD, is a pioneer in the field of integrative medicine for mental health. This protocol offers nutrition and lifestyle recommendations to support stress management and relaxation.‡

FOUNDATIONAL SUPPORT

In addition to a healthy diet and lifestyle (see page 3), consider the following foundational supplements to support overall health and well-being:‡

- PureGenomics® Multivitamin (PGM26)
- O.N.E.™ Omega (ONO6 / ONO3)
- Probiotic G.I. (PGI6)
- Magnesium (glycinate) (MG1 / MG3 / MG9)

TARGETED NUTRIENTS

Stand-alone nutrients should be considered in addition to foundational support based on lab results. Retesting is recommended with extended use.

- Vitamin D_3 25 mcg (1,000 IU) (VD11 / VD12 / VD16)
  Assessment: 25-hydroxyvitamin D
- PureMelt B_{12} Folate (PMLB9)
  Assessments: Urinary Methylmalonic acid and Formiminoglutamic acid
- Zinc 30 (Z31/ Z36)
  Assessment: Zinc RBC, Copper/Zinc ratio
- Liposomal Vitamin C (LVC1)
  Assessment: None required

TARGETED SUPPORT

The following interventions support common clinical objectives related to stress management and relaxation. Choose from the options listed below:‡

CLINICAL OBJECTIVE‡	ASSESSMENT*	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Support a healthy cortisol response	4-point salivary or urinary cortisol	**Cortisol Calm** (Order Code: COR1 / COR6) Designed to maintain healthy cortisol response and provide support for occasional stress, calm and emotional well-being‡	1 capsule in the morning and 1 capsule in the evening, with meals
Support for occasional stress and anxiety	Self-reported occasional stress and anxiety or GAD-7 questionnaire	**Daily Calm** (Order Code: DCM6) Supports a relaxed and alert mental state. Supports sleep with continued use.‡	1 capsule, 2 times daily, between meals
Rapid support for occasional anxiety		**Rapid Calm** (Order Code: RCM3) Delivers rapid support for occasional anxiety in less than 1 hour‡	1 capsule as needed with or between meals

TARGETED SUPPORT *CONTINUED*

The following interventions support common clinical objectives related to stress management and relaxation. Choose from the options listed below:‡

CLINICAL OBJECTIVE‡	ASSESSMENT*	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Support serotonin response to help support relaxation	Self-reported stress level	**SeroPlus** (Order Code: SOP1) Supports serotonin production to help promote mood, relaxation and healthy eating behavior‡	2 capsules, 1-2 times daily, between meals
Support serotonin response to help lessen occasional nervous tension		**Inositol (powder)** (Order Code: INP2) May support healthy mood, emotional wellness and behavior‡	1 scoop, 1-2 times daily, with or between meals
Promote relaxation and moderate occasional stress		**l-Theanine** (Order Code: LTH6 / LTH1) Promotes relaxation without causing drowsiness‡	2 capsules, 1-3 times daily, between meals

ADDITIONAL CONSIDERATIONS

The products in this category offer alternative or added support. Choose from the options listed below:‡

CLINICAL OBJECTIVE‡	ASSESSMENT*	PRODUCT RECOMMENDATIONS	SUGGESTED USE
Support neurotransmitter receptor function	Trace mineral hair analysis or Occasional anxiety or irritability	**Lithium (orotate) 1 mg** (Order Code: LI19) Supports emotional wellness, mood and behavior‡	1 capsule daily, with a meal
Support for occasional stress and overall physical and mental well-being	Self-reported stress or GAD-7 questionnaire	**Ashwagandha** (Order Code: ASH6 / ASH1) Helps moderate occasional stress‡	1 capsule daily, with or between meals

DIET AND LIFESTYLE RECOMMENDATIONS

In 1950, Hans Selye, MD, PhD, published a pioneering article in the British Medical Journal, detailing the human physiological response to sustained stress, known as the 3 Stages of Stress Adaptation. He outlined three key stages—alarm, resistance, and exhaustion—to guide healthcare professionals with assessment and support options.

Alarm Stage: The alarm reaction stage refers to the initial symptoms of the body under acute stress and the fight-or-flight response. It involves activation of the sympathetic nervous system and the HPA axis. The alarm stage is temporary, and the body returns to homeostasis after the stressor has passed.
Length of care: 2-4 weeks

Resilience Stage: If stress persists for extended periods, the body seeks to adapt and continuously secretes stress hormones to respond to the stress. Over time, sympathetic dominance can occur, resulting in hyperactivation of the HPA axis, with symptoms affecting multiple organs and tissues.
Length of care: 3-6 months

Exhaustion Stage: Long term hyperactivation of the HPA axis can lead to hypoactivation and reduced vagal tone with a poor sympathetic response. This is represented as fatigue and biomarkers that represent an inability to respond to and recover from stress.
Length of care: Up to 1 year or longer

While stress is a universal experience with profound impacts on each patient's overall health, its manifestation and effects are unique to everyone, necessitating a personalized approach to care. A customized intervention strategy can address a wide range of stress symptoms and causes while also improving patient involvement and outcomes.

Assessments	• 4-point, diurnal salivary or urinary cortisol • Cortisol Awakening Response (CAR) • DHEA • Melatonin • CoQ_{10} • Sex steroids • Organic Acids Test • Neurotransmitter profile • Lipid profile • Fasting blood glucose • Blood Pressure (sitting to standing) • Thyroid panel
Nutrition	Activation of the HPA axis increases the body's need for several nutrients.[1,2] Adequate nutrition can provide essential nutrients for healthy stress hormone and neurotransmitter production, maintain energy and support immune function. • Focus on a whole-foods, anti-inflammatory diet with low-glycemic load • Adequate calorie intake and recommended protein intake of 0.8 g per 2.2 pounds of body weight • Avoid or limit alcohol and sugar consumption • Discontinue smoking • Identify and remove food intolerances • Avoid refined carbohydrates and processed foods • Consume adequate protein and fat with meals to regulate blood sugar • Consume recommended fiber intake • Reduce or avoid intake of caffeine, soft drinks and other sugar-sweetened beverages • Consume fermented foods as tolerated

Exercise	In addition to its physical benefits, exercise can increase endorphin levels, improve mood and quality of sleep and mitigate the negative outcomes of stress.[3] Regular, non-intense physical activity reduces cortisol and heart rate responses to stress, while mind/body exercises like yoga can help regulate cortisol secretion and improve emotional well-being and fatigue scores.[4,5] **Alarm & Resilience Stage** • Reduce exercise intensity by 50-70% • Encourage 20-to-30-minute easy walks 5 times per week or lower intensity aerobic and resistance training • Allow for ample rest between workouts for adequate recovery **Exhaustion Stage** • Temporarily discontinue intense exercise. • Focus on restorative exercise like yoga, stretching, easy walking • Lower intensity aerobic and resistance training can be incorporated
Sleep	Sleep and the HPA axis have a reciprocal relationship. Sleep deprivation activates the HPA axis and can disrupt the circadian pattern of cortisol secretion, while HPA activation due to stress can negatively impact sleep.[6,7] An individual's quality and quantity of sleep are key when experiencing stress, and emphasis on and support for 7-9 hours of uninterrupted sleep should be a foundational strategy in every stage of stress adaptation. Here are some basic sleep support recommendations: • Practice good sleep hygiene • Encourage darkness at night and full spectrum light or sun exposure within 30 minutes of waking • Aim for 7-9 hours of uninterrupted sleep each night For general recommendations on sleep support, refer to Pure Encapsulations' Sleep Support Protocol‡
Stress Management	Interventions like mindfulness, meditation, relaxation techniques and talk therapy can positively influence circadian pattern of cortisol secretion, the cortisol awakening response and support emotional well-being.[8]

ASSOCIATED SUPPORT

Persistent activation of the HPA axis can affect multiple organ systems.[9-19]

Immune Support

A bidirectional relationship exists between the HPA axis and the immune system. Glucocorticoids released during stress can modulate activity of almost every type of immune cell, while immune activation can also trigger the HPA axis.[10] Immune support for the patient experiencing HPA axis activation can bolster their ability to respond to immune challenges and recover from stress.

Cardiovascular Support

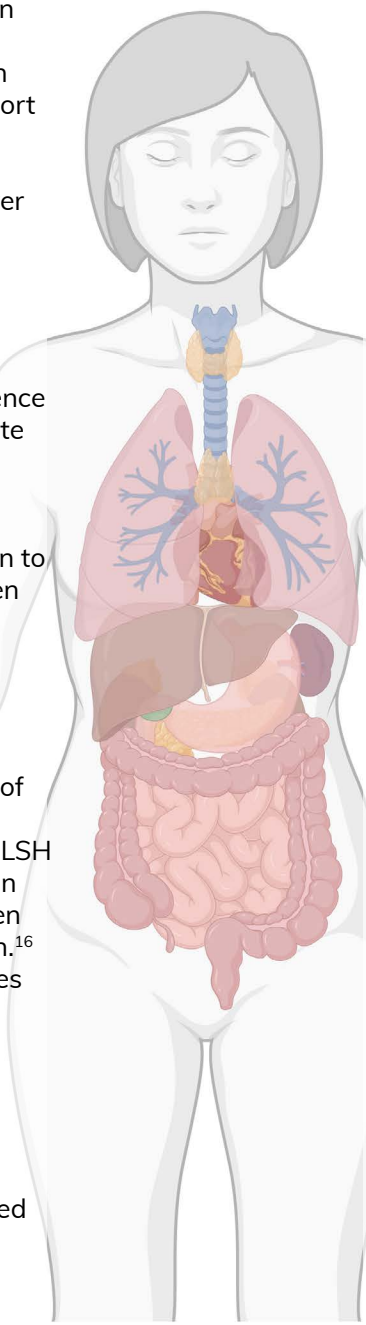
The presence of stress hormones in the bloodstream that accompanies the resilience and exhaustion phase of GAS can promote changes in heart rate, vascular function, oxidative stress, cytokine release and alterations in lipid metabolism.[11,12] These factors warrant assessment and attention to an individual's cardiovascular health when supporting recovery from stress.

Reproductive Support

Stress can negatively impact the reproductive axis through its dampening of GNRH secretion from the hypothalamus, which subsequently reduces secretion of LSH and FSH from the pituitary gland. This can lead to reduced ovarian function in women and lower testosterone production in men.[16] Stress induced alterations in sex hormones can also have a negative impact on the menstrual cycle, ovulation, fertility, libido, sexual function and sperm quality.[16]

Musculoskeletal Support

Elevated levels of cortisol over an extended period can lead to muscle wasting and decreased bone density by reducing osteoblast activity and promoting osteoclast function.[16] Over activity of the sympathetic nervous system can contribute to and worsen occasional muscle and joint discomfort.



Thyroid Support

Stress can affect thyroid function by suppressing hypothalamic and pituitary release of TSH and production of thyroid hormones from the gland itself.[13] Stress has the potential to exacerbate already existing thyroid concerns, and individuals with thyroid concerns have also been shown to have altered cortisol levels.[14,15]

Environmental Exposure

Exposure to heavy metals and endocrine disrupting chemicals can impact the structure and function of organs of the endocrine system, including the hypothalamus and adrenal glands.[18,19] Accumulation of heavy metals and toxins can also impact the production of catecholamines and steroid hormones that are necessary for stress adaptation.

Gastrointestinal Support

Persistent elevations in cortisol can impact the gut microbiome and digestive function. Supporting GI motility, microbial balance, intestinal barrier function and overall digestive health can support emotional resilience under stress.[9]

Mitochondrial Support

Stress adaptation is powered by cellular energy. The HPA axis response requires energy dependent enzymes that are necessary for glucocorticoid and catecholamine production, neurotransmitter and hormone synthesis and sympathetic activation.[17] Mitochondrial concerns can alter HPA axis function and contribute to fatigue.

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ADDITIONAL RESOURCES

For additional general recommendations, refer to the following Pure Encapsulations' blog posts and protocols:

GUT HEALTH

- Nutrient Solutions to Complement the 5R Protocol (Blog)
- Leaky Gut Protocol‡

IMMUNE HEALTH

- Immune Defense and Resilience Protocol‡

CARDIOMETABOLIC HEALTH

- Cardiometabolic Health Protocol‡

THYROID HEALTH

- Thyroid Health: Looking Beyond TSH and T4 (Blog)
- Thyroid Support Protocol‡

MITOCHONDRIAL HEALTH

- Mitochondrial Health Protocol‡

Discover how our other clinical tools can enrich your practice:

- **Drug-Nutrient Interaction Checker:** get valuable information on potential interaction between your patients' medications and nutritional supplements.
- **PureInsight™:** our healthcare provider support platform helps you deliver personalized diet, exercise, lifestyle and supplement recommendations for your patients.
- **Virtual Dispensary:** simplify patient sales and reduce in-office inventory with our Pure Patient Direct.

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*All assessments may not be necessary. Testing should be performed at the discretion of the healthcare provider.
*Genetic testing information is available through PureInsight™. Visit PureInsight™ to learn more.
+Dr. Greenblatt is a retained advisor to Pure Encapsulations.
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