

Helping to 'Reset' Your Stress/Adrenal System

Dr. Jesse Morse, MD, CAQSM

The adrenal system in the body consists of the adrenal glands, which are 2 small triangular-shaped glands located on top of the kidneys. These glands are crucial components of the endocrine system and play a significant role in maintaining physiological homeostasis and responding to stress.

The adrenal glands are regulated by the HPA axis, which through a series of hormones to release *cortisol*, which is considered our 'stress' hormone. The adrenal system is essential for the production of hormones that regulate metabolism, immune function, blood pressure and the body's response to stress.

1. Lifestyle Modifications

- **Prioritize Sleep:** Aim for 7-9 hours per night. Implement a consistent bedtime routine, avoid blue light before bed, and keep the room dark and cool.
- **Reduce Stimulants:** Minimize or eliminate caffeine, alcohol, and nicotine, especially in the afternoon.
- **Daily Sunlight Exposure:** Get morning sunlight to regulate circadian rhythm and improve cortisol balance.
- **Cold Therapy:** Short cold showers or ice baths (1-3 minutes) can help reset the nervous system and reduce chronic stress responses.
- **Breathwork & Mindfulness:** Practice deep breathing (e.g., 4-7-8 method), meditation, or yoga daily to activate the parasympathetic nervous system.

2. Dietary Strategies

- Start the day drinking 2 freshly squeezed limes in a glass with add a large pinch of Celtic or Himalayan sea salt
- Eat a Whole-Food, Anti-Inflammatory Diet
- Focus on lean proteins, healthy fats, fiber, and complex carbohydrates to stabilize blood sugar.
- Include wild-caught fish, pasture-raised meats, avocados, nuts, seeds, olive oil, and dark leafy greens.
- Reduce processed foods, refined sugars, artificial additives, and inflammatory oils (canola, vegetable oils).
- Balance Blood Sugar
- Eat every 3-4 hours if needed to prevent blood sugar crashes that spike cortisol.
- Include protein + fat + fiber with each meal.
- Increase Magnesium & Potassium-Rich Foods
- **Magnesium:** Spinach, pumpkin seeds, almonds, dark chocolate
- **Potassium:** Bananas, avocados, sweet potatoes, coconut water
- Adaptogenic Herbs & Functional Foods

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3. Targeted Supplementation

(Dosages should be individualized based on lab testing and patient needs.)

- **Vitamin C Supplementation:** A study demonstrated that 1000 mg daily of ascorbic acid (Vitamin C) significantly reduced cortisol levels in patients with functional hypercortisolemia due to chronic stress
- **Magnesium Supplementation:** Long-term magnesium supplementation (350 mg/day) has been shown to decrease 24-hour urinary cortisol excretion, potentially contributing to cardiovascular health benefits
- **Magnesium Glycinate** (400-600mg/day) – Supports relaxation and lowers cortisol.
- **Vitamin C** (1,000-2,000mg/day) – Reduces cortisol spikes from stress.
- **B-Complex Vitamins** – Supports adrenal function and neurotransmitter balance.
- **Omega-3s** (EPA/DHA) (2,000-3,000mg/day) – Reduces inflammation and stress response.
- **DHEA** (If Deficient) – May help balance cortisol if tested and found low.
- **Ashwagandha** (600mg/day) – Lowers cortisol and enhances resilience.
- **Rhodiola Rosea** (200-400mg/day) – Reduces stress-induced fatigue.
- **Holy Basil** (Tulsi) Tea – Helps calm the nervous system.
- **Phosphatidylserine** (300-400mg/day) – Reduces excessive cortisol output.
- **Glycine** (3-5g before bed) – Supports relaxation and sleep.

4. Stress Management & Nervous System Reset

- **High-Dose Vitamin C** (Intravenous): Usually completed in increments of 50 or 100 grams. The adrenal glands depend on Vitamin C to function, and often get depleted. Requires screening for G6PD deficiency before administration.
- **Procaine** (Intravenous): This helps to 'reset' the nervous system. Increases blood flow to the brain, particularly in the limbic system. Procaine is 'lidocaine's cousin,' but unlike Lidocaine, Procaine doesn't have any cardiac toxicity.
- **Stellate Ganglion Block** (SGB): The stellate ganglion is a collection of nerves near the front of the neck. It is responsible for causing chronic pain, anxiety and often PTSD symptoms. The nerves are in an electrical circuit, and sometimes they get stuck. By injecting them with lidocaine, procaine or growth factors (stem cells) you can 'reset' this bundle of nerves and often correct issues. Completed bilaterally.
- **HRV Training:** Use biofeedback (e.g., HeartMath) to improve heart rate variability.
- **Grounding:** Walk barefoot outside for 10-20 minutes daily to reset cortisol rhythms.
- **Lymphatic Movement:** Rebounding (mini-trampoline) or gentle movement to support detoxification.
- **Acupuncture & Massage Therapy:** Can lower cortisol and support adrenal recovery.

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5. Lab Testing & Monitoring

Consider ordering:

- DUTCH Test (Comprehensive Cortisol & Hormone Panel)
- Salivary Cortisol Test (4-point daily pattern)

•Blood Work:

- AM Cortisol
- DHEA-S
- Fasting Insulin & Glucose
- hs-CRP (inflammation marker)

6. Timeline for Results

- Short-term (1-4 weeks): Improved energy, better sleep, reduced anxiety.
- Mid-term (1-3 months): More balanced cortisol curve, reduced stress response.
- Long-term (3-6 months+): Full adrenal recovery with sustainable resilience.

Links:

1. <https://pubmed.ncbi.nlm.nih.gov/38010274>
2. <https://pubmed.ncbi.nlm.nih.gov/37879237>
3. <https://pubmed.ncbi.nlm.nih.gov/33030273>
4. <https://pubmed.ncbi.nlm.nih.gov/14997171>
5. <https://pubmed.ncbi.nlm.nih.gov/36944982>