



Diet and Lifestyle Recommendations for HPA Axis Dysfunction

HPA axis dysfunction (HPA-D) is the more accurate term for the syndrome often referred to as “adrenal fatigue.” It is characterized by a diverse range of signs and symptoms, including (but not limited to) fatigue, insomnia, poor stress tolerance, muscle aches, anxiety, and increased susceptibility to colds and flus. It can be caused by high levels of perceived stress, circadian disruption (too much exposure to light at night, not enough exposure to light during the day, travel across time zones, etc.), blood sugar dysregulation, and/or inflammation.

Supplements are an important part of the treatment of HPA-D, but diet and behavioral/lifestyle changes are absolutely crucial for recovery. Put simply, you cannot supplement yourself out of HPA-D.

Here is a list of diet, lifestyle, and behavioral changes that support the HPA axis.

Diet

- Eat a moderate-carbohydrate diet: Most people with HPA-D have problems with blood sugar regulation, resulting in low blood sugar, or sometimes a combination of high and low blood sugar. You’ll want to focus on a moderate carbohydrate diet, which means about 15 to 30 percent of your calories coming from carbohydrates (100 grams of carbohydrate on a 2,000-calorie diet or 125 grams on a 2,500-calorie diet).
- Eat adequate protein, especially in the morning: Higher-protein diets reduce cravings and seem to have a regulating effect on blood sugar. You should eat at least 15 percent of total calories as protein (75 grams of protein on a 2,000-calorie diet or 95 grams on a 2,500-calorie diet). You should also eat a highprotein breakfast (40 to 50 grams). This has a stabilizing effect on blood sugar throughout the day.
- Eat frequently throughout the day: To keep blood sugar levels stable, you should either eat five or six small meals per day or three regular meals with snacks in between. Choose whichever approach suits your preference and lifestyle best. Snacks and meals should always have some protein and fat, never just carbohydrate alone.
- Avoid excess dietary potassium: If your adrenal fatigue is severe and you experience low blood pressure, you may want to avoid high-potassium foods, since potassium can lower blood pressure. These include bananas, dried figs, raisins, dates, potatoes, and sweet potatoes.
- Ensure adequate salt intake: Extra salt in the diet can help increase blood pressure. If your HPA-D has caused you to have low blood pressure, you may want to start your day with a glass of water with one-half to one teaspoon of sea salt in it. You should also season your food to taste.
- Avoid caffeine and alcohol: Caffeine is a stimulant, and it places additional stress on the body. Alcohol stresses the liver, which often functions suboptimally in HPA-D. It’s best to avoid caffeine entirely and



either limit alcohol consumption to two to three drinks per week or avoid it completely until your adrenals recover.

Behavior and Lifestyle

- Get good sleep and plenty of rest: There's nothing more important for those with HPA-D than getting enough sleep and rest. If you feel you need to take naps during the day, do so as your schedule permits. Get as much rest as you can!
- Be smart about exercise: Overtraining is another common cause of HPA-D. Signs of overtraining include difficulty recovering from workouts, a plateau or decrease in performance, fat gain despite regular exercise, insomnia, restlessness, anxiety, fatigue, muscle or joint pain, frequent illness, and depression. Favor low-intensity exercise such as walking, cycling, swimming, or yoga over high-intensity activities like CrossFit or endurance training. Moderate-intensity strength training, however, seems to be beneficial for those with adrenal issues.
- Be in contact with nature: Natural environments have rejuvenating and restorative effects, reduce stress, and alleviate mental and physical fatigue. Spending regular time outdoors in a natural environment is especially important for those with HPA-D.
- Get pleasure, play, and connection: Many people with HPA-D are suffering from stress burnout. They're exhausted, dispirited, and often feel depressed or "flat." Pleasure, play, and social connection are all deeply nourishing and restorative on both a physical and emotional level and can provide a powerful antidote to the symptoms of HPA-D.

Stress Management

- Along with poor sleep, psychological and emotional stress are primary contributors to HPA-D, and managing stress is a crucial part of the recovery process. It's essential to make stress management as much (or even more) of a priority than the dietary changes and supplements. Remember to start slow and be gentle with yourself. The changes that occur with stress management are often not as immediate or obvious as with diet and supplements, but they are long lasting and profound.
- There are a number of different clinically proven ways to manage stress, from yoga to deep breathing to biofeedback. Below are several points to consider, and a few options for specific techniques.
 - **Start small.** If you're new to meditation, start with just five minutes each day. Gradually increase that time as you become more accustomed to the practice.
 - **Make it a priority.** Consider putting it on your calendar, just as you would any other important task for the day.
 - **Be gentle with yourself.** It's okay if you miss a day, and it's okay if you don't feel like you're "good" at it.
 - Choose a mix of practices. Some days, sitting still on the cushion may feel near impossible, and yoga or another movement-based practice may be a better fit for the day.



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- **Try progressive relaxation, or mindfulness-based stress reduction (MBSR).** There is a free guided body scan at <http://www.buddhanet.net/audio-meditation.htm>
 - For about \$20 you can purchase four guided meditations by Jon KabatZinn (the pioneer of MBSR) at <http://www.soundstrue.com/store/guided-mindfulness-meditation-3947.html>
 - If sleep is a significant issue, consider the Sounder Sleep System for about \$40: <http://www.soundersleep.com/marketplace/?category=audio>
 - **Biofeedback** is another option that some people prefer, since it provides a more tangible measure of how we modify our physiological response through relaxation. There are many options available that work with a tablet or smartphone, such as emWave2, BioZen, and Quantum Life