

Diet for Hypothalamic-Pituitary-Adrenal (HPA) Axis Dysfunction

Since glycemic dysregulation and inflammation are two of the four drivers of HPA axis dysfunction, it follows that diet should address both factors. General guidelines recommend higher overall protein intake (especially in the morning to help stabilize blood glucose throughout the day) and moderate carbohydrates eaten mostly later in the day.

A high-protein and low-carbohydrate approach may be useful for those with insulin or leptin resistance, hypertension, or high blood sugar. If you have followed this approach and it has not been effective, it can often be helpful to add some Paleo-friendly carbs back into the diet. Avoiding snacking also helps with blood sugar stabilization.

For those with normal weight and a tendency towards low blood sugar or low blood pressure, a moderate-fat and moderate-carb approach is better than low carb. Try eating a snack or many small meals throughout the day and avoid intermittent fasting.

SPECIFIC MICRONUTRIENTS

Vitamin C: The adrenals have very high tissue concentrations and uptake.

- Fruit sources: papaya, strawberries, pineapple, oranges, kiwi, cantaloupe, raspberries, blueberries, and cranberries
- Vegetable sources: broccoli, Brussels sprouts, cauliflower, kale, cabbage, and bok choy

B-vitamins: Many biochemical pathways for making steroid hormones are B-vitamin dependent.

- Top sources: liver, clams, seafood, dark leafy greens, lentils, mushrooms, spices, poultry, egg yolks, peppers, squash, nuts, and seeds

Sodium: Low intake can cause increased renin, cholesterol, triglycerides, and all cause mortality. Symptoms can include lethargy, nausea, and hypotension.

- Take one-half to one teaspoon of sea salt in a glass of water upon rising and add salt and/or kelp flakes to food if needed

Potassium: High levels are associated with lower blood pressure, and low levels or a deficiency is associated with hypertension, high blood sugar, and being overweight

- Top sources: potato, halibut, plantains, rockfish, sweet potato, beet greens, bananas, sockeye salmon, acorn squash, avocado, parsnips, pumpkins, kohlrabi, duck, and mushrooms

Calcium, zinc, and magnesium: This multi-formulation has been shown to have stress-lowering effects.

- Calcium: sesame seeds, sardines (with bones), yogurt, collard greens, spinach, cheese, turnip greens, sockeye salmon (with bones), molasses, and mustard greens
- Magnesium: oysters, liver, crab, lobster, beef, lamb, endive, pork, nuts, dark chocolate, and crimini mushrooms
- Zinc: dark leafy greens, nuts and seeds, fish (mackerel), avocados, dairy products (if tolerated), bananas, figs, and dark chocolate

Caffeine: Avoid, or at least cut down on, caffeine when experiencing symptoms of HPA axis dysfunction

Alcohol: Limit to two to three drinks per week during treatment