# **Adrenal Flow**

Adaptogenic herbs and nutrients to support stress resilience



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Adrenal Flow is designed to be an all-in-one synergistic stress support formula. The adrenal glands are responsible for regulating a wide variety of processes in the body most notably the "fight or flight" response to stressful situations. These glands produce several hormones and neurotransmitters, some of which are designed to help regulate energy levels.

## HORMONES EXCRETED BY THE ADRENAL GLANDS



#### **KEY INGREDIENTS:**

**Adaptogens:** A key feature of Adrenal Flow is the inclusion of several herb adaptogens. Adaptogens regulate the production of various hormones and neurotransmitters. Whether the need is for an increase or decrease, they facilitate the normalizing of these levels. The adaptogenic herbs in Adrenal Flow include: rhodiola, ashwaganda, American ginseng, and eleuthero. Licorice helps cortisol stay in the bloodstream longer, thereby lessening the demand on the adrenals produce more of it.

**Tyrosine:** N-Acetyl L-Tyrosine, the most bioavailable form of tyrosine, is included as a critical building block of various neurotransmitters, thyroid hormones, and catecholamines, which are often depleted under chronic stress conditions.<sup>5</sup>

**Vitamins B & C:** B and C vitamins are crucial contributors to energy generation at the cellular level. B6 specifically is required as a cofactor for critical neurotransmitters.

## HPA AXIS:

The hypothalamic-pituitary-adrenal (HPA) axis is a communication process by which the hypothalamus (which help to regulates homeostasis and hormones) signals the pituitary (known as the "master gland") to communicate with the adrenals (endocrine glands) in response to various forms of stress. It is a negative feedback loop. Various hormone intermediates are used and or produced like CRH (corticotropin-releasing hormone) and ACTH (adrenocorticotropic hormone). The adrenal glads release cortisol in response to these messaging molecules.



Due to the fast pace and unrelenting demands of modern life the adrenal glands are taxed with producing higher amounts of these compounds more frequently. The body does not discriminate between perceived stressors (ie Work deadlines, frustration while stuck in traffic), or modern day stressors (poor sleep, intense exercise) the sympathetic central nervous systems turns on and the reaction is just as though there is a life or death situation. *In athletes this could simply be due to not finding a balance between training, fueling and recovery.* The General Adaptation Syndrome, first published by Hans Selye in 1946 in The Journal of Endocrinology, explains each phase of the stress response.

## **GENERAL ADAPTATION SYNDROME**

	PHASE 1		PHASE 2		PHASE 3
•	Alarm Phase	•	Adaptation Phase	٠	"Exhaustion" Phase
•	Overactive adrenal glands	•	Increased resistance to stress	•	Hormone output decreases
•	High amounts of stress	•	Body attempts to adapt to stress	•	Fatigue, low mood, low motivation
	hormones (ie. cortisol,	•	"WIRED BUT TIRED"	•	Difficulting tolerating stress

#### **USES:**

Adrenal Flow can help:

- Support HPA Axis
- Replenish vitamins deleted during periods of stress
- Support physiologic resilience to high/intense training load
- Extend the serum life of cortisol (how long it stays in the blood)
- Aid in replenishing catecholamines (epinephrine and norepinephrine)
- Recovery from overtraining

epinephrine, nor-epinephrine)



## **HOW TO TAKE:**

- As a dietary supplement, take three capsules per day with meals, or as directed by your health care practitioner (divided dosing recommended)
- Avoid taking immediately before bedtime