

Balance D

Contains ingredients important for the synthesis of dopamine, a catecholamine important for positive affect, mood, cognition, and craving control*

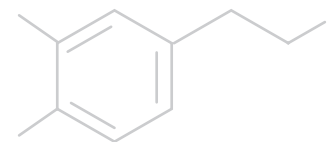
Item Number	Available Sizes	Serving Size
2067	60 Capsules	2 Capsules



Key Ingredients

N-acetyl-L-cysteine	<ul style="list-style-type: none"> ■ Precursor to L-cysteine¹ ■ L-cysteine is required for the synthesis of glutathione, an endogenous antioxidant²
N-acetyl-L-tyrosine	<ul style="list-style-type: none"> ■ L-tyrosine is a precursor to catecholamines including dopamine, norepinephrine, and epinephrine³
Mucuna cochinchinensis seed extract (99% L-DOPA)	<ul style="list-style-type: none"> ■ Natural source of L-DOPA⁴ ■ L-DOPA crosses the blood-brain barrier and is the direct precursor to dopamine⁵
Vitamins B6, C, and folate	<ul style="list-style-type: none"> ■ Active forms of vitamin B6, C, and folate are important for catecholamine synthesis^{6-8*}

The Science

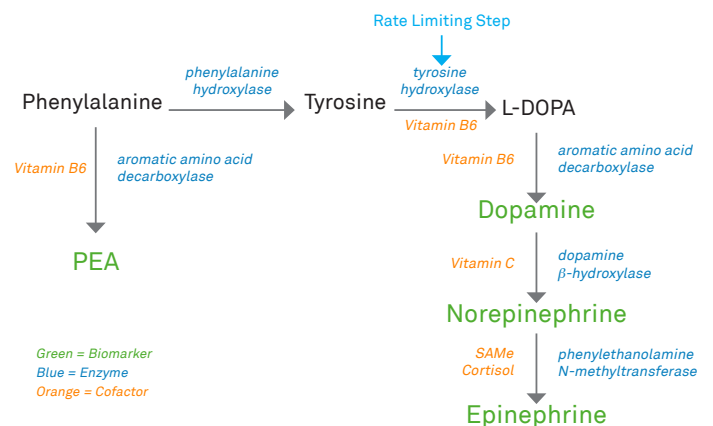


Catecholamines

A class of neurotransmitters responsible for many functions in the nervous and endocrine systems⁹

- Catecholamines play an important role in **mood**, energy, **memory**, attention, and **cognition**¹⁰⁻¹³

Catecholamine Pathway

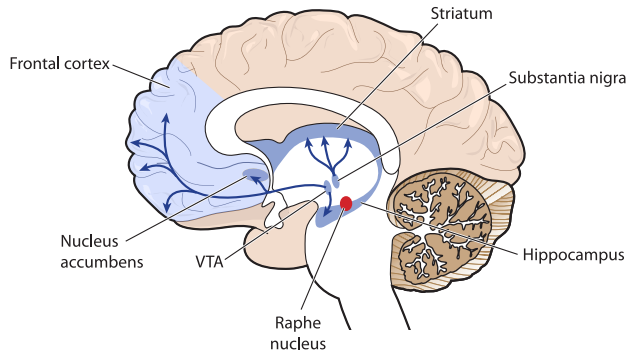


‡This product uses Gnosis S.p.A.'s (6S)-5-methyltetrahydrofolic acid, glucosamine salt (Quatrefolic®) and is protected by U.S. Patent No. 7,947,662. Quatrefolic is a registered trademark of Gnosis S.p.A., Milan, Italy.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

MORE SCIENCE BEHIND BALANCE D

Figure 1. Dopaminergic Signaling in the Brain



Dopamine is important for craving control

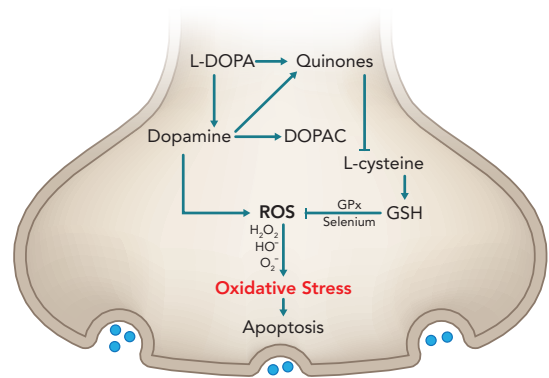
Dopaminergic function is critical in the regulation of cravings, reward based behaviors, and weight management¹⁴

- Dopamine release from the ventral tegmental area (VTA) to the nucleus accumbens is the primary pathway in which reward based behaviors such as cravings are modulated¹⁵
- Impaired signaling from decreased dopamine release or receptors (DRD2) is thought to reduce sensitivity to natural reward-based behavior *in vitro*¹⁶

Balance D provides ingredients to support dopamine synthesis^{3,6*}

- N-acetyl-L-tyrosine and *Mucuna cochinchinensis* seed extract (99% L-DOPA) are amino acid precursors to dopamine³
- Vitamin B6 is a necessary cofactor for the synthesis of dopamine^{6*}

Figure 2. Oxidative Stress Affects Neuronal Health



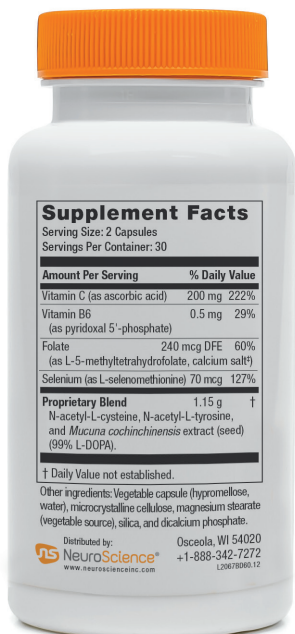
Formulated for a comprehensive pathway approach

Produced in excess, dopamine is oxidized into quinones, free radicals, and reactive oxygen species (ROS)¹⁷

- Quinones react with glutathione (GSH) and deplete levels of the reduced GSH and total antioxidant capacity¹⁸
- Excessive production of ROS and decreased antioxidant function contributes to cellular damage, dysfunction, and/or death¹⁷

Balance D contains ingredients for the synthesis of glutathione

- N-acetyl-L-cysteine is the precursor to L-cysteine; L-cysteine is an amino acid precursor in the synthesis of glutathione^{1,2}
- Selenium is a micronutrient that helps to comprise selenoproteins; these proteins are crucial for brain function and the enzyme glutathione peroxidase (GPx)^{19*}



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