

# K41

# DOPATONE®

## Supports Healthy Dopamine Response, Activity, & Synthesis

### BENEFITS OF PRODUCT

- Provides amino acids and cofactors required for dopamine production.
- Provides phytonutrients that exhibit/support dopamine activity.
- Provides phytonutrients that have shown to protect dopaminergic neurons.

### USE OF PRODUCT

To help support healthy Dopamine levels as it relates to nutritional balance.

### OTHER PRODUCTS TO CONSIDER

Other products can be used in conjunction with Dopatone® Active to balance Dopamine. Apex's Sublingual Vitamin-B12 (K34) is a rich source of micronized methylcobalamin that can provide essential methyl compounds to support neurotransmitter balance. Stress responses can cause neurotransmitter imbalance. Adaptocrine® (K02) can be used to provide stress adaptogens to support healthy neurotransmitter levels. Adrenacalm™ (K16) provides a rich source of liposomal phosphatidylserine which can be useful in the same manner.

### KEY INGREDIENTS

### RESEARCH COMMENTARY

The research information presented here should not be construed as claims regarding performance of this product.

**MUCUNA PRURIENS** is commonly known as cowhage and its active components include L-Dopa, tyrtamine alkaloids, lecithin, and tannins. It is postulated that the L-Dopa amino acid compounds in the botanicals are converted into dopamine in the brain. It has been used as a botanical for neurological disorders since ancient days and recent research has demonstrated that the botanical has Anti-Parkison influences due to its precursor compounds. Additionally, the active components in Mucuna pruriens have protective impacts on the substantia nigra and nigrastratial pathways.<sup>1,2,3,4,5,8</sup>

**BETA-PHENYLETHYLAMINE (PEA)** is an endogenous monamine alkaloid and crosses the blood-brain barrier easily. It acts as a neuromodulator in the nigrostratial dopaminergic pathway and stimulates the release of dopamine. PEA also has influences on beta endorphins that have been attributed to feeling of pleasure. Chocolate contains a rich source of PEA and it is this mechanism that is theorized to cause the feelings of love, pleasure, and satisfaction via dopamine activation. PEA supplementation has shown to improve attention and enhance mood.<sup>7,8,9,10,11</sup>

**BLUEBERRY EXTRACT** contains a rich and potent source of antioxidants, particularly the Anthocyanin compounds. These compounds have proven effective in free radical quenching areas of the dopamine-rich neurons of the central nervous system.<sup>12,13,14,15</sup>

### Supplement Facts

Serving size 1 vegetarian capsule  
Servings per container 90

Amount Per Serving	% Daily Value	
Vitamin B6		
(as pyridoxal 5 phosphateate)	10 mg	500%
Selenium (as selenomethionine)	100 mg	35%
Mucuna Pruriens extract	300 mg	*
D,L-Phenylalanine	200 mg	*
Beta-Phenylethylamine	80 mg	*
N-Acetyl L-Tyrosine	100 mg	*
N-Acetyl L-Cysteine	100 mg	*
Blueberry extract (fruit)	25 mg	*
Alpha Lipoic Acid	10 mg	*

\*Daily Value not established

Other ingredients: Vegetable cellulose (vegetarian capsule), silicon dioxide.

### DIRECTIONS

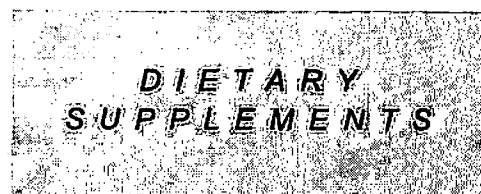
Take 1-2 capsules, 3 times a day, or as directed by your healthcare professional.

**D, L-PHENYLALANINE (DLPA)** is an essential amino acid precursor for the production of dopamine. It is required from the diet form sources such as meat, fish, eggs, and dairy products. The L-form of phenylalanine is converted into catecholamines such as dopamine. The D-form of phenylalanine is used to produce the dopamine modulator phenylethylamine. The combination of both forms of phenylalanine are referred to as DLPA and found to be an effective mood enhancer, and reduce pain perception. DLPA prevents the breakdown and degradation of endorphins.<sup>16,17,18,19,20,21</sup>

Statements in this flyer have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

# Formula Info Page

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**N-ACETYL-TYROSINE** is an amino acid that serves as a precursor for dopamine production. Oral supplementation with tyrosine results in increased plasma and brain levels of the compound. Tyrosine supplementation has demonstrated the ability to change plasma neurotransmitter levels. Tyrosine is converted into dopamine by the enzyme tyrosine hydroxylase in the brain. Additionally, tyrosine depletion by dietary means produces symptoms of decreased dopamine in both human and animal studies.<sup>22 23 24 25 26 27</sup>

**PYRIDOXAL-5-PHOSPHATE (P-5-P)** the active form of vitamin B6 is pyridoxal-5-phosphate (P-5-P) and undernutrition of<sup>28</sup> this compound promotes loss of dopamine in the corpus striatum. It appears that dopaminergic neurons of the nigrostriatal tract may be vulnerable to long-term P-5-P deficiency. Additionally, P-5-P deficiency prolongs the time course of evoked dopamine release from the rat striatum.<sup>29 30 31 32</sup>

**GLUTATHIONE COFACTORS** The substantia nigra is extremely sensitive to oxidative stress by hydroxy radicals. Glutathione has demonstrate promise in protecting these neuronal tissues responsible for producing dopamine. The essential nutritional substrates for the synthesis of glutathione are selenium, and N-acetyl-cysteine.<sup>33 34 35</sup>

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