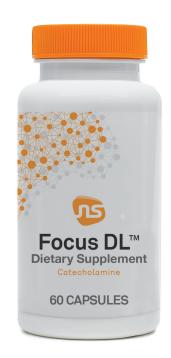


# Focus DL

Contains the precursor to PEA, a neuromodulator important for focus, cognition, and catecholamine activity\*

Item Number	Available Sizes	Serving Size
20003	60 Capsules	2 Capsules



## Key Ingredients

	<ul> <li>Precursor to phenylethylamine (PEA), dopamine, norepinephrine, and epinephrine<sup>1</sup></li> </ul>
DL-phenylalanine	<ul> <li>PEA is a neuromodulator shown to increase the release of catecholamines such as dopamine and norepinephrine<sup>2</sup></li> </ul>
	<ul> <li>PEA levels were found to be significantly lower in individuals with focus issues compared to controls<sup>3</sup></li> </ul>

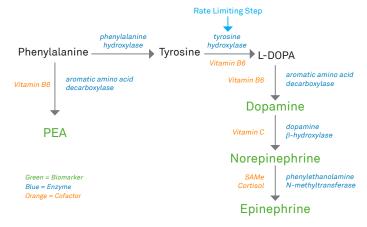
## The Science

### Catecholamines

A class of neurotransmitters responsible for many functions in the nervous and endocrine systems<sup>4</sup>

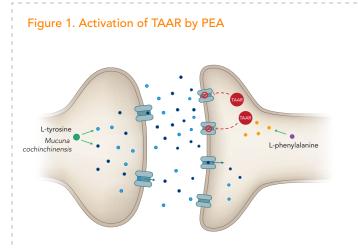
 Catecholamines play an important role in mood, energy, memory, attention, and cognition<sup>5-8</sup>

## Catecholamine Pathway



\*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 FOCUS DI

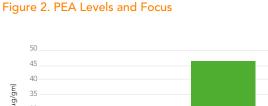


### **Action of PEA**

Trace amines, like PEA, are similar in structure to neurotransmitters and are involved in the regulation of dopamine, norepinephrine, and serotonin<sup>2</sup>

- The trace amine associated receptor (TAAR) functions to inhibit the reuptake of the catecholamines dopamine and norepinephrine in vitro (Figure 1)<sup>9</sup>
- Activation of TAAR by PEA allows these neurotransmitters to remain in the synapse, leading to increased concentrations of catecholamines<sup>9</sup>
- Catecholamines from the prefrontal cortex control multiple cognitive functions including attention, focus, impulse, and craving control

Supporting PEA can work alone or together with dopamine and norepinephrine support to naturally sustain catecholamine activity





p<0.05

### The science behind symptoms

A cohort study of pediatric subjects with focus concerns had significantly lower PEA levels when compared to the control group  $(p{<}0.05)^3$ 

- There was a 73% difference in urinary PEA levels in the control subjects (Figure 2.) when compared to the group with focus issues<sup>3</sup>
- Another double-blind study showed that daily use of 200mg of DL-phenylalanine for 30 days may improve mood<sup>10\*</sup>
- PEA is converted into the metabolite phenylacetic acid, a compound with similar natural effects to that of endorphins<sup>9</sup>

Focus DL contains amounts of DL-phenylalanine per serving that meet and exceed those used in this study  $^{\rm 10}$ 



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