

Supports key cognitive functions including:

- ✓ Memory, higher thinking, learning and attention
- ✓ Promotes sleep and mood
- ✓ Helps promote levels of a key neuro-protein (BDNF) that declines as we age
- ✓ BDNF is involved in learning, memory and higher thinking



## Welcome to Premier Research Labs' flagship product, **CogniTropic™**.

This advanced brain support formula is the culmination of an emerging class of patent pending botanical compounds scientifically formulated to target cerebral performance-boosting mental focus, attention, working memory, recall and recognition. Exciting new research demonstrates these ingredients may significantly **promote Brain-Derived Neurotrophic Factors (BDNF) levels**, clinically supporting the cognitive functions specific to the ability to learn, manage information, focus and react. BDNF is a member of the neurotrophin family of growth factors within the hippocampus, cortex and basal forebrain - areas vital to learning memory and higher thinking.

### All Natural, Clinically Studied Nutrients

CogniTropic™ is a new genre of world-class, full spectrum botanical ingredients combined together in one formula to deliver the cognitive results you have been waiting for. Leading the list of these clinically reviewed ingredients includes the well-researched, all-natural spearmint leaf, patented as Neumentix™, coupled with an extract of whole fruit from the *Coffea arabica* plant, patented as NeuroFactor™.

This masterpiece is then anchored by a naturally fermented Choline L-Bitartrate (not the synthetic DL-tartaric acid form) and Organic Rosemary Leaf (noted from ancient times to be associated with "remembrance"). Never before has such an impressive lineup of all-natural, ingredient super-stars been assembled into one supplement without undesirable excipients.



These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.



**Commitment to Excellence:**  
Each PRL Formula Meets or Exceeds FDA/cGMP Standards

## Spearmint (*Mentha spicata*)

An extract of organic leaves is used in Neumentix™.

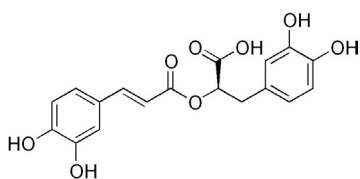
### How does our spearmint extract work?

We have used Neumentix™, a water-extracted, natural ingredient sourced from spearmint because it has been selectively bred to contain high level of polyphenols, such as rosmarinic acid. This exciting cognitive ingredient is targeted to support cognitive performance, specifically focus and working memory, without disrupting sleep at night. These benefits are clinically supported for healthy young adults as well as older individuals with age-related memory issues.

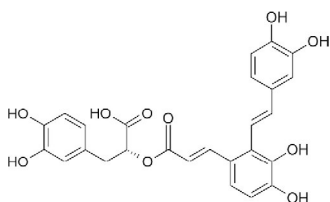
### Polyphenols Improve Cognitive Performance

These four polyphenols are naturally present in spearmint:

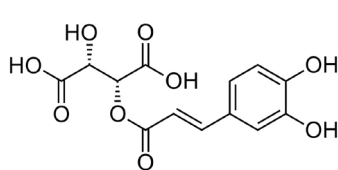
Rosmarinic acid



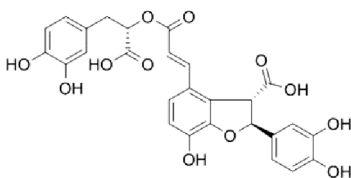
Salvianolic acid A



Caftaric acid



Lithospermic acid



The key polyphenolic constituents identified in Neumentix™ have been studied to determine how they may work to promote cognitive performance. Research suggests that these polyphenols are capable of improving cognitive performance in humans through at least four potential mechanisms of action:

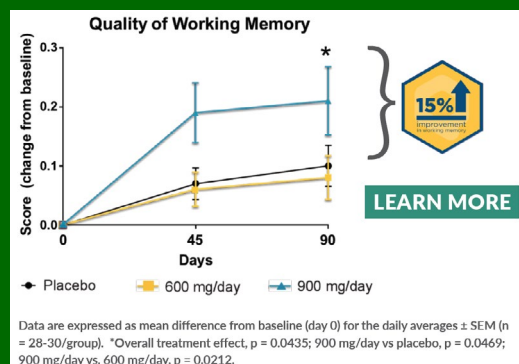
1. Reduction of oxidative stress.
2. Increase in acetylcholine, a neurotransmitter actively involved in learning and memory processes.
3. Neurogenesis, which promotes the healthy growth of new neurons
4. Neuroprotection, which offers the ability to help keep neural cells healthy

### Supports Working Memory and Sleep

One of the unique benefits of Neumentix™ is that this extract has been shown to improve working memory. Working memory is part of short-term memory that allows for the storage and manipulation of information while a person is working on another task. Working memory is controlled by the prefrontal cortex and hippocampus.

Working memory is a critical cognitive function because it supports cognitive abilities such as sustained attention, focus and concentration. Research also suggests that working memory supports physical performance, such as movement and reaction time. Due to the nature of working memory, improvements in this domain will likely help improve one's ability to manage workloads and improve productivity.

#### RESEARCH SPOTLIGHT: Neumentix™



Researchers found healthy men and women 50-70 years old with age related memory issues, who were given 900 mg of Neumentix™ for 90 days, experienced 15% improvement in working memory and reported an improved ability to fall asleep.

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## Coffee Fruit (*Coffea arabica*)

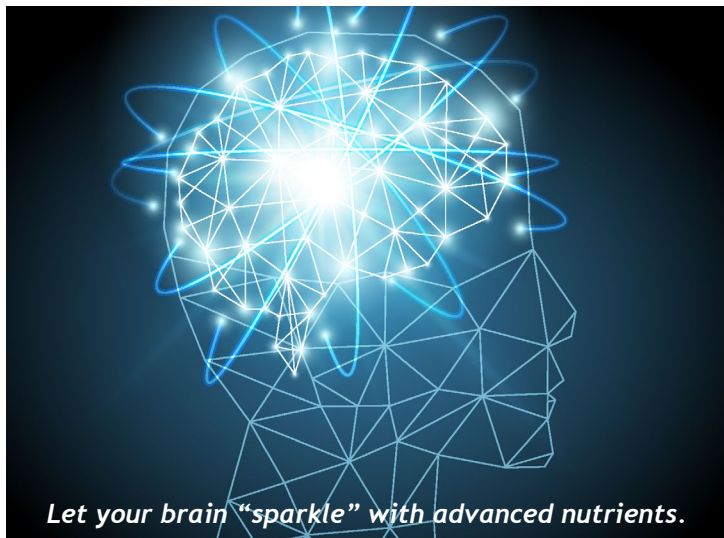
The outer fruit of the coffee bean has remarkable cognitive support properties.

### How does our whole fruit extract of *Coffea* work?

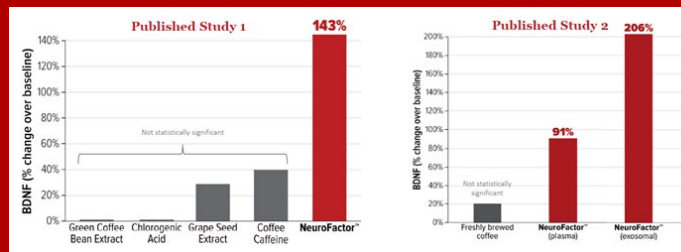
PRL has chosen NeuroFactor™, an all-natural, patented extract of whole fruit from the *Coffea arabica* plant, as a key brain support ingredient in CogniTropic™. This extract contains a unique profile of polyphenols that have been shown in clinical studies to stimulate the production of Brain-Derived Neurotrophic Factor (BDNF), a key neuroprotein involved in overall brain health.

### WHAT IS BDNF?

BDNF (Brain-Derived Neurotrophic Factor) has been widely reported to play a critical role in neuronal development, maintenance, repair, and protection against neuro-degeneration. Neuroscience now suggests that increased BDNF levels may help mitigate the advance of cognitive challenges in human subjects. NeuroFactor™ is a novel, natural botanical shown to significantly increase serum BDNF levels in two double-blind, placebo-controlled studies of healthy human subjects.



### RESEARCH SPOTLIGHT: NeuroFactor™



**Clinical Results:** Two randomized clinical trials show significant increases in BDNF levels compared to ingredients containing compounds believed to be linked to BDNF. Only the unique polyphenol profile found in coffee fruit has been shown to be effective.

### What Else Can I do to Increase BDNF Naturally?

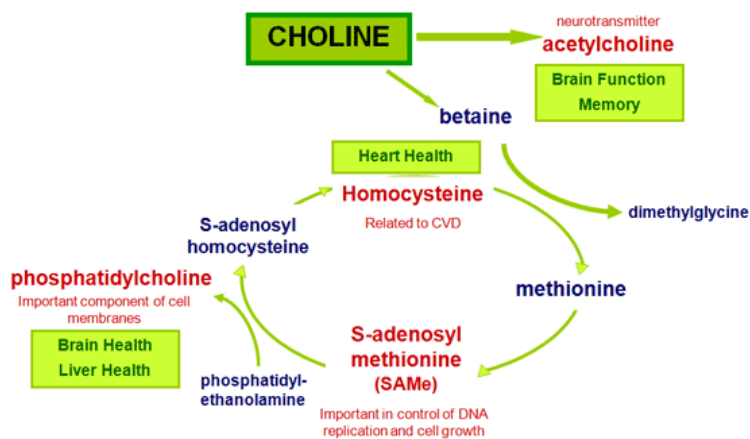
1. **Exercise:** get regular exercise
2. **Avoid “junk foods”:** avoid sugar, processed foods and high fructose corn syrup
3. **Deep sleep:** get at least 5 continuous hours of sleep every night
4. **Meditation:** de-stress with relaxing meditation techniques
5. **Sunlight:** get at least 20 minutes of natural sunlight on the skin daily.
6. **Be Happy!** choose to adopt a positive, happy attitude

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**CogniTropic™** is an all-natural botanical formula scientifically targeted to promote Brain Derived Neurotrophic Factors (BDNF) and cognitive performance by **boosting memory, higher thinking, attention, learning, mood and sleep.**

## How Choline Affects Brain, Heart and Liver Health



## Why is Choline Included in Our Formula?

Choline's necessity for human health is fundamental; its biochemistry underlies many important processes in human nutrition. Some of choline's effects are direct in that it is a biosynthetic precursor of numerous molecules that are important for diverse structural and functional purposes in the human body.

Choline is a material requirement of cells for their membrane structure and metabolic control. Its presence is integral in maintaining a balance of key biochemicals needed for cell growth, function and repair. Choline is indispensable for its enabling roles in metabolism and mobilization of other micro- and macronutrients, including vitamin cofactors, amino acids and lipids. Other effects of choline are indirect in that it impacts the balance of and need for many other partially compensatory metabolites to which it is closely related, via its influence on the activity of certain regulatory genes or the catalytic proteins they express.

Dietary intake of choline is known to affect the availability of the nutrient to the tissues and organs whose viability depend on it. Intake of choline is absolutely essential since the body does not produce enough, even under ideal conditions. While choline exhibits nutritional synergies with vitamins involved in folate metabolism and the methionine cycle, such as vitamin B6 and vitamin B12, and nutrients such as omega-3 fatty acids, none of these substances can functionally replace it.

Deficiency in these complementary nutrients elevates the need for choline in the diet. Choline is a biochemical "building block" that is important in the synthesis of cell membranes and agents of neurotransmission and cell signaling. It is necessary for the transport of fat from the liver and participates in chemical reactions that reduce plasma homocysteine.

## Ingredients:

Five Vegetarian Capsules Provide:

Neumentix™† Phenolic Complex K110-42

Spearmint Extract (leaf) (*Mentha spicata*) . . . . . 900 mg  
(Standardized to Minimum 24% Total Phenolics; Minimum 14.5% Rosmarinic Acid)

Organic Rosemary Leaf (*Rosmarinus officinalis*) . . . . . 310 mg

Choline (from Grape Fermentation as Choline Bitartrate) . . . . . 110 mg

NeuroFactor™†† . . . . . 100 mg

Whole Coffee Fruit Extract (*Coffea arabica*)

Other Ingredients: Vegetable Capsules (Hydroxypropyl Methyl Cellulose)

**Suggested Use.** Take 5 capsules daily or as directed by a health professional.

Code: 2193 (150 vegetarian caps/bottle)

†Neumentix™ is a trademark of Kemin Industries, Inc.

††NeuroFactor™ is a trademark of VDF FutureCeuticals, Inc.

††U.S. Patent Nos.: 6572915, 7754263, 7807205, 7815959, 8597710, 8603563, and 8603564

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