

# CLEAR THE FOG



omne  
**Diem**<sup>TM</sup>  
Condition Nutrition

RESTORE. RECALL. REGAIN.

Information provided for educational purposes only.

\*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.

# Boost Attention & Focus in 28 days



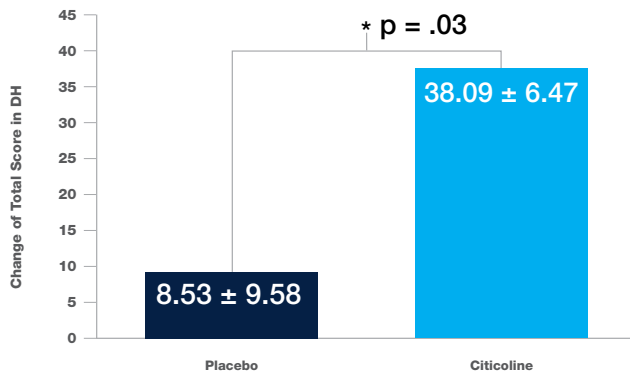
## ▶ Attentional performance after nutritional supplementation of Citicoline in healthy **ADULT WOMEN**<sup>1</sup>

Visit 3 (28 days)	500mg citicoline (N=19)	Placebo (N=20)
CPT-II Omission Errors Mean ± SE	1.47 ± 0.66	6.70 ± 3.11
CPT-II Commission Errors Mean ± SE	2.68 ± 0.75	5.50 ± 1.03

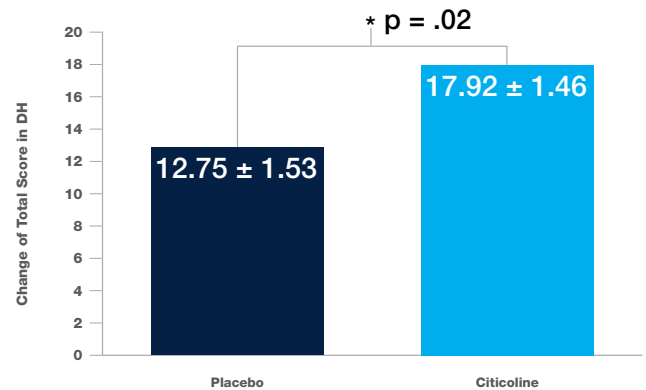
- Study findings indicate that citicoline supplementation was associated with improved attentional focus and inhibition, as measured by the CPT-II, in a group of healthy female adult volunteers.
- Individuals made fewer commission errors compared to those in the placebo group ( $p = 0.02$ ) and trended toward making fewer omission errors ( $p = 0.06$ ).



## ▶ The effect of Citicoline supplementation on motor speed and attention in **ADOLESCENT MALES** in 28 days<sup>2</sup>



- Improved performance on the Finger Tap Test after supplementation. \*  $p < 0.05$   
Note. DH = Dominant Hand



- Improved performance on the Ruff 2&7 Speed task after supplementation. \*  $p < 0.05$

## ▶ Citicoline supplementation was associated with improved motor function and attentional abilities in healthy adolescent males.

Promotes  
**DOPAMINE  
RECEPTOR  
DENSITIES**



Supports Healthy  
**DOPAMINE  
LEVELS**

▶ Research has shown that citicoline administration improves attention in populations of varying age and health status.<sup>3,4,5</sup>

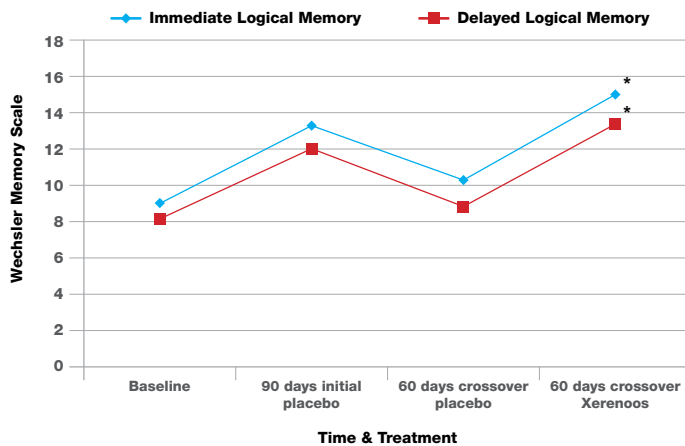
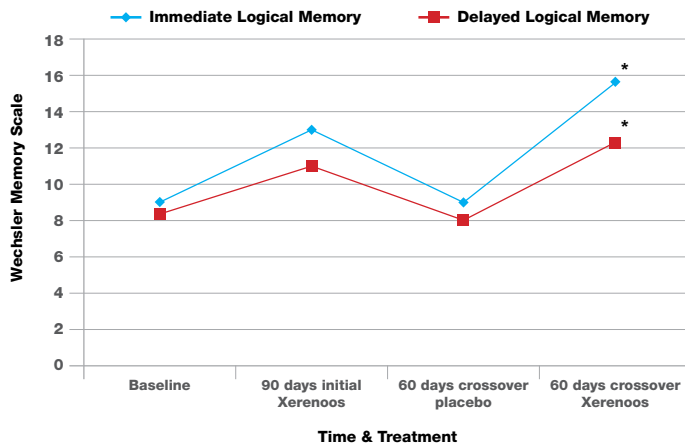
Protects  
**DOPAMINE  
RELATED  
NEURONS**

**cerenx** (SODIUM CITICOLINE)

\*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.

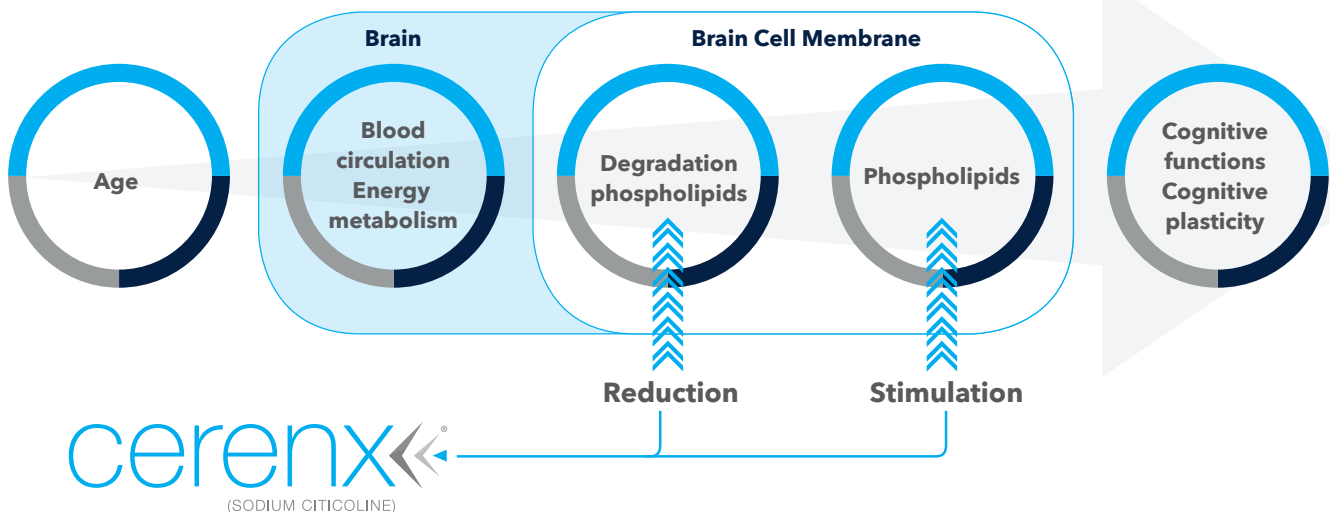


## Citicoline Promotes Verbal Memory in Aging<sup>6</sup>



- The 60 day crossover study showed that Citicoline significantly improves both immediate and delayed logical memory  $p < 0.05$
- Conducted at the Department of Brain and Cognitive Sciences of the MIT, 32 Healthy subjects with a relatively inefficient memory (i.e. below the average of a total of 94 subjects) took 2 g/day of Citicoline or placebo for 60 days in a crossover study. This crossover study was preceded by a 90 day study with 1g/day Citicoline or placebo.

## Memory: How does it work<sup>7,8</sup>



- Studied at Harvard Medical School and McLean Hospital, it was determined that Citicoline is an endogenous intermediate in the biosynthesis of membrane phospholipids in brain cells. Citicoline stimulates the production of membrane phospholipids in brain cells. At the same time, citicoline reduces the degradation of phospholipids due to the decreased energy metabolism and blood circulation.

REFERENCES

- 1 McGlade, E. et.al; Food and Nutrition Sciences, 2012, 3, 769-773
- 2 McGlade, E. et.al; Journal of Attention Disorders, 2015, 1-14
- 3 Conant, R. et.al; Alternative Medicine Review, 9, No.1, 2004, pp. 17-31
- 4 A. Davalos and J. Secades, Stroke, 42, No. 1, 2011, pp. S36-S39
- 5 Agnoli, A. et.al; Alzheimer's Disease: Proceedings of the 5th Meeting of the International Study Group on the Pharmacology of Memory Disorders Associated with Aging, Birkhauser, Boston, 1989
- 6 Spiers PA, Myers D, Hochanadel GS, Lieberman HR, Wurtman RJ. Arch Neurol, 53: 441-448, 1996
- 7 Babb SM, Appelmans KE, Renshaw PF, Wurtman RJ, Cohen BM. Psychopharmacology, 127: 88-94, 1996
- 8 Babb SM, Wald LL, Cohen BM, Villafuerte RA, Gruber SA, Yurgelun-Todd DA, Renshaw PF. Psychopharmacology (Berl), 161: 248-254, 2002

