

# Nourish Your Brain with Vinpocetine & CDP

After age around age 40, many persons find their brain function decreasing. It may start out as memory difficulties or impaired concentration or even some little life event as banal as forgetting what you went to the fridge for. Very often, such diminishment of mental capacity is associated with the silent build-up of atherosclerotic plaque in the arteries leading to the brain.

When we think of poor flow, the heart almost always comes to mind. But another extremely important circulatory health issue is brain function. If not enough blood is reaching brain tissues, the brain will suffer from nutrient deficit, especially the one nutrient it craves more than any other: *oxygen*. This is a prime cause of mental fog, age-related dementia (senility) and minor and major stroke.

There are several fascinating and beneficial brain nutrients or what we now term *nootropics* we want to tell you about because they are so important for supporting brain function and especially so if someone has experienced a stroke.

## Vinpocetine

The medicinal uses of **periwinkle** (*Vinca minor*) date back centuries for conditions that range from wasp stings to diabetes. In the 1950s, however, scientists discovered the plant is a source of a group of important chemical alkaloids. From these, a number of important medical drugs have been derived or synthesized, including agents for lowering blood pressure and blood sugar, as well as the chemotherapeutic drugs vincristine and vinblastine.

During this time, scientists also isolated another alkaloid, vincamine. By 1976, vinpocetine, a synthesized version of vincamine known by the trade name Cavinton, was being introduced into clinical practice throughout Europe for the treatment of cerebrovascular disorders and

related symptoms. Today, based on more than 100 clinical trials involving some 30,000 patients, we know **vinpocetine** as a potent natural remedy for the mind.

Vinpocetine is known to have positive effects on thought, reason, emotion, and memory. There are five main ways that it seems to improve overall memory and brain function. Vinpocetine enhances blood flow to the brain and oxygen utilization; increases the brain's tolerance for oxygen deficit (hypoxia) and lack of blood flow (ischemia), preventing tissue death; is an anticonvulsant; inhibits phosphodiesterase (PDE) enzyme; and improves blood flow by inhibiting platelet aggregation, reducing risk of stroke. It also increases noradrenalin production, serotonin release, and acetylcholine concentration.

These actions result in reduced resistance of cerebral vessels and increase of cerebral blood flow. This effect might also beneficially contribute to vinpocetine's neuroprotective action. Vinpocetine allows brain tissues to be filled with oxygen-rich blood.

Otherwise healthy persons whose brain, memory and intellectual abilities seem to be slipping might want to use vinpocetine to safely enhance brain function. Besides aiding the brain's utilization of oxygen and glucose, it also increases production of the body's main cellular energy source, adenosine triphosphate (ATP) from glucose.

## Cytidine diphosphate choline

Also known as **CDP**, cytidine diphosphate choline is a neuroprotector that has been studied worldwide in many clinical trials with positive findings when orally administered. One study involving 1,652 stroke patients and published in the December 2002 issue of *Stroke* concluded, "Treatment with oral citicoline [CDP] within the first 24 hours

after onset in patients with moderate to severe stroke increases the probability of complete recovery at 3 months."

Harvard Medical School researchers, reporting in the May 2002 issue of *Psychopharmacology*, note, "The increases in phosphodiesterases seen in this study indicate that phospholipid synthesis and turnover were stimulated by 6 weeks of oral citicoline [CDP]. These results in humans support previous *in vitro* and animal studies and suggest that the administration of oral citicoline may be of use in reversing age-related changes in the brain." ♦

## Neuroprotection Prescription

By combining vinpocetine with cytidine diphosphate choline as well as **ashwagandha**, **niacin**, **phospholipid complex** and **Ginkgo biloba**, we have in **Neuro-Max™ II** (Metabolic Response Modifiers, also known as MRM), an excellent formula to support healthy blood flow to the brain and neuroprotection. Because of both vinpocetine and CDP, this is a very exciting formula and worth using by anyone who must maintain sharp mental focus throughout the day, as well as for anti-aging purposes (also thanks to ashwagandha, a powerful Ayurvedic longevity agent).

**Dosage**—Take one to two capsules daily with a meal.

**Availability**—**Neuro-Max II** from Metabolic Response Modifiers is available nationwide at natural health centers and from health professionals. You can contact MRM to find a store near you. Call them toll-free at (800) 948-6296.



## REFERENCES

- Babb, S.M. "Chronic citicoline increases phosphodiesterases in the brains of healthy older subjects: an *in vivo* phosphorus magnetic resonance spectroscopy study." *Psychopharmacology* (Berl), 2002;161(3):248-254.
- Davalos, A., et al. "Oral citicoline in acute ischemic stroke: an individual patient data pooling analysis of clinical trials." *Stroke*, 2002;33(12):2850-2857.
- Kiss, B. & Kárpáti, E. "[Mechanism of action of vinpocetine]." *Acta Pharm Hung*, 1996;66(5):213-224.