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**SmartCaps™: SCS Intensive Nutrition Products' Vinpocetine/ALA formula**

Retyped copy of the article "Vinpocetine: The Smart Agent"
By Chris Kilham; Total Health, Volume 20, No. 2 pg. 36-37

# Vinpocetine: The Smart Agent

JUST WHEN THE AMERICAN PUBLIC is warming up to the idea of the cerebral-enhancing effects of ginkgo biloba, along comes another agent that not only does many of the same things as ginkgo, but does some of them better. Touted, as an enhancer of both cerebral circulation and memory, the new smart agent on the block is vinpocetine, which originates from the voaconga seed and is primarily used today as an industrial source of vincamine, an alkaloid used widely in geriatrics for the treatment of cerebral senility.

A derivative of vincamine, vinpocetine demonstrates many of the same benefits. In Europe, vinpocetine is marketed as a drug, but in the United States, vinpocetine, a plant derivative, is emerging as an ingredient in dietary supplements for brain/mind enhancement. If this sounds confusing, the reason has more to do with varying drug laws and regulations from one country to the another that the nature of vinpocetine itself. In Germany, for example, St. John's Wort, now established as a beneficial aid in the treatment of mild to moderate depression, is prescribed by physicians (and reportedly outsells Prozac® in that country by a ratio of 25:1). Yet in the U.S., St. John's Wort is a dietary supplement, not a prescription item. So, too, with vinpocetine, which is marketed in Europe as a cerebral enhancer.

Studies performed on vinpocetine show that it works in the brain in the following ways: it enhances vascular circulation in the brain, increases the production of ATP (the primary form of stored

energy in cells) in the brain, improves the brain's utilization of oxygen and improves the brain's metabolism of glucose. By acting in these four ways, vinpocetine improves over all cerebral inefficiency.

Researchers have discovered that many degenerative brain disorders are accompanied by decreased circulation and diminished cellular efficiency. While the causes of common brain disorders are diverse and complex, it stands to reason that any agent which can enhance cerebral efficiency overall would thereby enhance cognitive function. In the case of vinpocetine, this proves in many cases to be so.
Animal studies on the brain-enhancing effects of vinpocetine are voluminous. The circulatory and cognitive-enhancing effects of vinpocetine have been studied on dogs, rats, guinea pigs and rabbits, with impressive results. But animals are not humans and while vinpocetine improves numerous physiological parameters in animals, it is the tests conducted with vinpocetine on humans that demonstrate its real value.

One of the first questions that researchers set out to answer is whether vinpocetine crosses the blood-brain barrier, thereby acting directly upon the brain. A study published in the Journal of Pharmaceutical and Biomedical Analysis reported that the chemical analysis of cerebrospinal fluid (CFS) shows the presence of vinpocetine shortly after administration, proving that vinpocetine does indeed cross the blood-brain barrier.

At Iwate Medical University in Japan, patients ages 69-76 were given doses of 15 mg vinpocetine daily for three weeks. Analysis showed that vinpocetine increased the concentration of ATP, enhanced the oxygen release of hemoglobin and enhanced vasodilation in the brain.

To further plumb the physiological effects of vinpocetine, a study of patients with cerebral circulatory disorders was conducted at the Rohju Sanitarium in Osaka, Japan. Using ultrasound techniques, researchers set about to determine whether vinpocetine improved cerebral circulation. Results indicated a significant increase. This study, and others of a similar nature, confirmed results previously obtained with animals.

A question that arises with any nutrient, herb or medicine is whether that substance should be taken with food or on an empty stomach. In a German study, the bioavailability of vinpocetine was examined with two groups of volunteers, one of which ate prior to ingesting vinpocetine, and one group which did not. Results of the study showed that the bioavailability of vinpocetine was improved 60-100 percent by taking it with food.

One especially exciting finding is that vinpocetine may play a valuable role in preventing stroke. In a study conducted at the Nagoya University School of Medicine in Japan, vinpocetine demonstrated the ability to enhance red blood cell deformability in the brain. The reduction of red blood cell deformability, and the subsequent rigidification of red blood cells, is a well-known contributing factor in stroke.

Given the fact that a high percentage of the elderly suffer from age-associated cognitive impairment, researchers have been eager to determine whether vinpocetine has any value in memory enhancement. The answer is a definitive yes. In a double blind study of 22 elderly patients suffering from central nervous system degenerative disorders conducted a the University of Caligari in Italy, 87 percent experienced improvement in all parameters of neurological and cognitive function after 90 days, as assessed by the Clinical Global Impressions and Sandoz Clinical Assessment Inventories. No significant side effects were noted. Patients in the study were given 10 mg of vinpocetine daily for the initial 30 days of the study, and 5 mg three times

daily for the remaining 60 days. This study demonstrates that elderly individuals suffering from age-associated cognitive impairment can indeed benefit from taking vinpocetine.

The Journal of the American Geriatric Society reported the results of a double-blind trial in which 42 patients which chronic vascular senile cerebral dysfunction were given 10 mg of vinpocetine three times daily for 60 days. Patients were tested using the Clinical Global Impression Scale, The Sandoz Clinical Assessment Geriatric Scale and the Mini-Mental Status Questionnaire. Significant improvements were observed across the board, without any significant side effects.

What about the possible value of vinpocetine in the treatment of brain damage? A four week study conducted at Japan's Yokufukai Geriatric Hospital examined the effects of vinpocetine on patients suffering from stroke, cerebral hemorrhage, cerebral arteriosclerosis and transient ischemic attacks. Of the 207patients studied, 67 percent of patients taking 5 mg of vinpocetine three times daily experienced slight to marked improvement, without notable side effects. Given the severity of the conditions from which the patients suffered, the improvements demonstrated by vinpocetine administration are highly encouraging.

At the University of Surrey in Britain, a placebo-controlled, randomized, double-blind study examined the effects of vinpocetine on 203 patients suffering from mild to moderate psychosyndromes including primary dementia. According to two different methods of assessment, administration of vinpocetine significantly improved cognitive performance, with no notable side effects.

As valuable as vinpocetine may be in enhancing cerebral circulation and cognitive function among a wide range of individuals, it appears to do nothing in cases of Alzheimer's disease. In a study of 15 Alzheimer's patients at the VA Medical Center in San Diego, California, vinpocetine was administered in doses of 30, 45, and 60 mg per day for one year. No improvements were noted and the conclusion of the study was that vinpocetine is ineffective in improving Alzheimer's related cognitive deficits and does not appear to slow the rate of decline in individuals with the disease.

While many studies focus on the effects of vinpocetine for patients suffering from various degenerative conditions, researchers have also inquired into the effects of this agent in healthy individuals. In a German study 40 healthy volunteers were given 40 mg of vinpocetine daily for two days. This brief course resulted in a significant improvement in memory as assessed by the Sternberg Memory Scanning Test. This study suggests that in normal, healthy people, vinpocetine can enhance memory, and can do so quickly.

Vinpocetine may not be a panacea, but it clearly demonstrates value in enhancing brain function and cognitive ability in many cases. As we strive to retard the aging process and fight back the deterioration of the brain and mind, vinpocetine, with exciting and credible science to back it up, stands to be one of the valuable agents we use for wellness into advanced years.