

## Reversing Memory Loss and Lack of Concentration Hyla Cass, M.D.

It's happened to all of us: fuzzy thinking, daydreaming, inability to concentrate, a slow mind, and the struggle to connect names with faces or recall schedules and phone numbers. We often will turn to stimulants like sugar and coffee in a vain effort to jump-start our mind.

Declining mental function, which often starts when we reach our forties, is not inevitable. The good news is that you can get your mind in gear again and make it work better than ever.

Some simple interventions can go a long way. Mira brought her 75-year-old mother, Dora, to see me. Her memory had become so bad that Mira was afraid to leave her alone in her nearby apartment. Dora was forgetful, getting lost in the neighborhood, and appeared depressed. Her doctor wanted to prescribe antidepressants, but Mira wasn't convinced. She knew how much help she herself had found through natural means.

Mental decline may be due to diseases of the blood vessels (vascular disease, hypertension) or to neurotoxins. Many circulatory problems can be addressed with a

**“Dora was forgetful, getting lost in the neighborhood, and appeared depressed. Her doctor wanted to prescribe antidepressants, but Mira wasn't convinced.”**

multi-pronged approach and a supplement program. Circulatory problems will likely respond to chelation therapy – given intravenously or orally – using a chelating or “grabbing” agent to clear the calcium deposits from the arterial walls (details on chelation therapy can be found on the internet at: [www.acam.org](http://www.acam.org)).

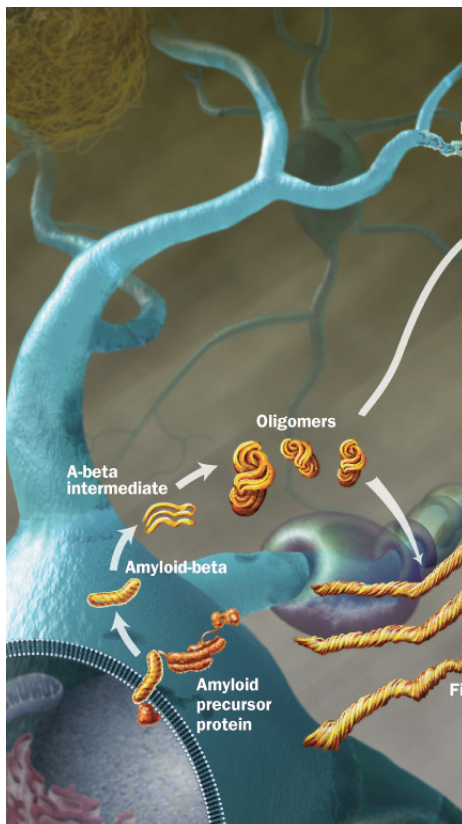
Here's what you can do for prevention. First of all, it's a “use it or lose it” situation. The more you “exercise” your brain, the better it will work. Whether you're 20 or 60, the time to act is now. You must maintain a proper diet, exercise, reduce stress levels, get rid of toxins in the brain, and take nutrients that boost mental function.

One quick way to get a handle on memory loss is to reduce stress. Researchers at Stanford University have found that the communication system among brain cells begins to shrivel up after just two weeks of exposure to stress-induced high cortisol levels. The great news is that managing stress can reverse the effect.

Be sure you're getting plenty of antioxidants in your diet, including foods containing large amounts of vitamins A, C, and E, selenium and zinc. These are needed to neutralize free radicals – toxic molecules formed by normal metabolism and by toxins we take into our bodies from our environment.

Our trillions of brain cells are made of 60 to 70 percent fats or lipids, and we

*Continued on page 4*



## Huperzine A: Protecting Memory and Cognitive Function Jim English

Alzheimer's Disease (AD) is a progressive degenerative disease that most commonly appears after the age of 50. Currently, Alzheimer's afflicts approximately 40% of all individuals over the age of 85, for a total of 4 million people in the U.S. alone. When symptoms occur before the age of 65 the disease is designated Presenile Dementia of the Alzheimer's Type (PDAT). When symptoms occur after age 65 the syndrome is referred to as Senile Dementia of the Alzheimer's Type (SDAT). Symptoms include a gradual yet inexorable loss of memory, mental performance, communication skills, abstract thinking and personality. Ultimately, Alzheimer's ends in the death of the patient, with a mean life expectancy of 8 years.

As well as being a profound personal tragedy for afflicted individuals and their loved ones, the financial costs of caring

for victims of the disease exceed \$80 billion per year. The current trend towards longer life expectancy, combined with the increased incidence of senile dementia

**“...cases of Alzheimer's are increasing as the median age of the population grows, further underscoring the urgent need to find an effective treatment for this disorder.”**

with age, means that cases of Alzheimer's are increasing as the median age of the population grows, further underscoring the urgent need to find an effective treatment for this disorder.

*Continued on page 2*

# Huperzine A

Continued from page 1

Huperzine-A is a natural supplement derived from an ancient traditional Chinese herbal medicine that offers hope to those suffering from Alzheimer's disease and other age-related mental conditions. In addition to benefiting patients suffering from Alzheimer's, Huperzine's memory-enhancing properties suggest that it may be an effective agent for improving memory and learning in healthy humans as well.

## Cholinergic Dysfunction in AD

Alzheimer's is characterized by the destruction of nerve cells in several key areas of the brain devoted to mental functions. This results in tangles of nerve fibers and plaque formation of an abnormal, insoluble protein called amyloid. While there is a general reduction in the concentration of all neurotransmitting substances, a marked clinical feature of the disease is a dramatic decrease in the neurotransmitter acetylcholine.

Acetylcholine is a vital neurotransmitter with a fundamental role in memory. It is also necessary for proper intracellular communication between nerve cells. Research has shown that levels of acetylcholine are deficient in the brains of patients with Alzheimer's disease.

Biopsy and postmortem studies have shown that there is a substantial loss of presynaptic cholinergic neurons in brains of patients with Alzheimer's.<sup>1</sup> What little acetylcholine that is still produced in the patient's brain is quickly broken down by the brain enzyme, acetylcholinesterase (AChE), leading to a shortage of the neurotransmitter and contributing to the

patient's loss of memory and other cognitive functions.

## Prescription Alzheimer's Drugs

Two drugs are currently approved for use in the U.S. to treat Alzheimer's – Tacrine™ and Donepezil hydrochloride (Aricept™). Both drugs are moderately effective acetylcholinesterase inhibitors that work by interfering with the actions of AChE. Since acetylcholine is normally degraded and recycled by acetylcholinesterase, this approach counteracts any further reduction of already low levels of acetylcholine.

By inhibiting the actions of AChE it is hoped that the small amounts of acetyl-

works to block acetylcholinesterase.<sup>2</sup> Scientists had previously learned that AChE inhibitors such as tacrine and donepezil worked by sliding into the AChE molecule to “jam up” its molecular machinery and impair its ability to degrade acetylcholine.

By imaging a 3-dimensional structure of the AChE molecule, the researchers were able to peer into the complex folded protein structure to discover a deep chasm, called the active-site gorge. The scientists determined that the active-site gorge acts as a guide to funnel acetylcholine into the interior of the enzyme where it is cut apart prior to recycling.

**“It is as if this natural substance was ingeniously designed to fit into the exact spot in AChE where it will do the most good.”**

choline still being produced will persist longer within the synaptic cleft and lead to improvements in memory and cognitive abilities.

While both drugs are effective acetylcholinesterase inhibitors, they suffer from a number of drawbacks. First, they are available only by prescription; second, they are expensive, costing between \$100 –\$240 per month; and third, both drugs can cause debilitating side effects including liver toxicity (Tacrine), and nausea and diarrhea (Donepezil).<sup>1</sup>

## Huperzine A: A Safe Alternative

*Huperzine A* is a natural compound derived from an ancient Chinese remedy, *Qian Ceng Ta*. This traditional herbal medicine was prepared from *Huperzia serrata*, a clubmoss that grows on the ground in damp forests and rock crevices. Brewed as an herbal tea, *Qian Ceng Ta* has been used in China to treat fever, inflammation, and irregular menstruation, and has been used as a diuretic.

In the late 1980's, researchers in China discovered that a purified alkaloid extracted from *Huperzia* – *Huperzine A* – was a potent, reversible inhibitor of acetylcholinesterase (AChE). *Huperzine A* readily crosses the blood-brain barrier to prevent acetylcholinesterase (AChE) from destroying acetylcholine.

## Molecular Monkey Wrench

A study at the Weizmann Institute in Israel uncovered how *Huperzine A* (Hup-A)

This study revealed that *Huperzine A* has a strong specificity for AChE, and is exceptionally well-suited to its new role, fitting into the active sites of acetylcholinesterase much like a key slipping into a lock. “Hup-A appears to bind more tightly and specifically to acetylcholinesterase than the other AChE inhibitors,” crystallographer Prof. Joel Sussman, one of the authors of the study said. “It is as if this natural substance was ingeniously designed to fit into the exact spot in AChE where it will do the most good.”

## Clinical Studies

Hup-A has undergone double-blind, placebo-controlled clinical trials in China in patients suffering from various memory disorders, including AD. In fact, it is estimated that in the past few years 100,000 people have been treated in China with Hup-A. Researchers in China claim that it helps normal elderly with memory problems as well as people with AD.

Double-blind, placebo-controlled clinical trials in China have demonstrated that patients suffering from Alzheimer's and various other memory disorders gain significant benefit, both in terms of memory and life quality. Xu et al. conducted a placebo-controlled, double-blind study in which subjects with AD were given 200 mcg/day Hup-A or placebo for 8 weeks. Statistically significant improvement was achieved in 58 percent of the treated group with respect to cognitive function and their ability to retrieve past memories.<sup>3</sup>

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In one study, Chinese researchers of the Department of Pharmacology, Zhejiang Academy of Medical Sciences, Hangzhou, China, examined the effects of Hup-A on six volunteers. They concluded that Hup-A had a high rate of absorption and distribution in the body, and was without adverse side effects.<sup>4</sup>

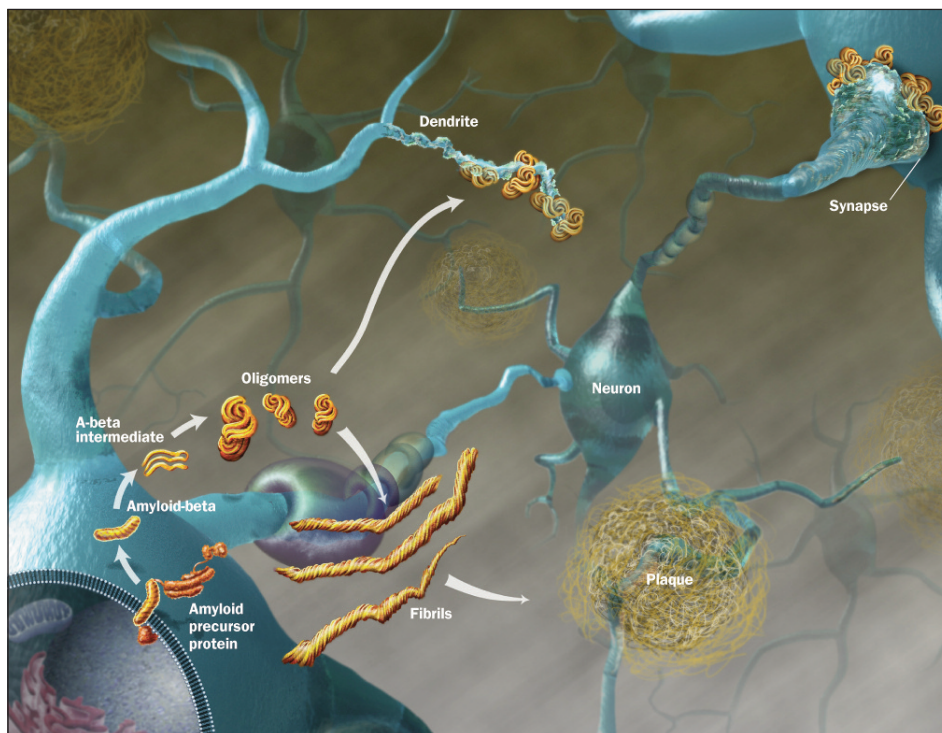
A second study conducted by researchers at Zhejiang Medical University focused on the efficacy of Hup-A on memory, cognition, and behavior in Alzheimer's disease. This multicenter, double-blind, placebo controlled study found that about 58 percent (29 out of 50) of patients treated with Hup-A showed improvements in their memory, cognition, and behavioral functions. No severe side effects were found. The researchers concluded that "Hup-A is a promising drug for symptomatic treatment of Alzheimer's disease."<sup>4</sup>

In a related paper, noted neurologist, Alan A. Mazurek, M.D., reported on the results of an office-based trial studying the safety and efficacy of Hup-A as a treatment for Alzheimer's disease. Mazurek evaluated the safety and efficacy of Hup-A in an open-label trial involving 29 patients with mild to moderate AD.<sup>5</sup>

Twenty-two patients (75.9 percent) completed the three-month study. Only two patients reported adverse effects, one being an apparently unrelated hemorrhagic infarct that resolved without treatment. No gastrointestinal side effects, nausea, diarrhea, cardiac effects or headache were reported. Status Examinations' (SMMSE) improvement of one point or greater was seen at one, two and three months. Mazurek reported that improvements appeared to be dose related, with those on the higher dosages exhibiting the greatest improvement. Wrote Mazurek, "Huperzine A appears to be safe, well-tolerated, and effective in the symptomatic treatment of AD."

### Other Benefits

In addition to its activity as an AChE inhibitor, ongoing research suggests that Hup-A has a wider role to play in supporting neuroprotective functions. Researchers recently discovered that Hup-A inhibits glutamate-induced cytotoxicity, protecting neonatal hippocampal and cerebellar neuronal cells in culture from death caused by the amino acid glutamate. In addition to protecting from glutamate-induced cytotoxicity, researchers were also surprised to learn that Huperzine A promotes new dendrite outgrowth of neuronal cultures.



**Fig. 1.** Amyloid-beta appears to cause problems when it aggregates into other forms and accumulates. In its small oligomer form, A-beta can damage synapses, message-relaying connections between nerve cells. By setting off cascades of reactions, oligomers can also damage dendrites.

### Potential Protection for Chemical Warfare

Researchers at the Walter Reed Army Institute of Research in Washington D.C. have conducted studies into Huperzine's potential role as a pretreatment drug to protect against chemical warfare nerve agent poisoning. In one study, Huperzine A was found to be twice as effective in pro-

### Summary

Huperzine A appears to be a safe memory supplement. Clinical research has shown that Huperzine A is superior to other cholinesterase inhibitors such as tacrine and donepezil. Huperzine A is rapidly absorbed when taken orally, and possesses a very slow rate of dissociation from the enzyme and a longer duration of action

**“Huperzine’s memory-enhancing properties suggest that it may be an effective agent for improving memory and learning in healthy humans as well.”**

tecting mice against the lethal effects of the nerve agent soman when compared to physostigmine.<sup>6</sup> Huperzine A's effects lasted for six hours compared to only 90 minutes for physostigmine, providing further evidence for the slow clearance of Huperzine from the body.

### Safety

Huperzine A has a wide margin of safety. Toxicology studies show Huperzine A to be non-toxic even when administered at 50-100 times the human therapeutic dose with no remarkable side effects.

Huperzine A has been shown to be effective in inhibiting the actions of AChE to increase acetylcholine concentrations and alleviate some of the symptoms associated with acetylcholine deficiencies. Significant effects have been noted in patients both in terms of their life quality and their ability to retrieve past memories. These findings suggest that Hup-A is a unique and exciting supplement for supporting memory in the healthy aging human.

*Continued on page 8*

# Memory Loss

Continued from page 1

need essential fatty acids (EFAs) to provide the appropriate raw materials. So include plenty of “brain food” in the form of fatty fish (salmon, mackerel, tuna), flaxseeds, and oils made from seeds and nuts. Avoid the bad fats: trans-fatty acids and saturated fats.

Aricept (donepezil) has been shown to slow the progression of Alzheimer’s disease, although it does not cure the disease. Side effects include loss of appetite, vomiting, muscle cramps, fatigue, and diarrhea.

## Natural Approaches

Natural treatments provide the materials needed to make brain cells and enhance neurotransmitter production and activity.

- **Acetyl-L-carnitine** (ALC) is fuel for the brain, helping to produce the memory neurotransmitter, acetylcholine, while acting as an antioxidant for the brain and nervous system.
- **DMAE** is another building block for the vital brain neurotransmitter, acetylcholine. By supporting synthesis of this important neurotransmitter, DMAE aids in supporting alertness, improves concentration, reduces anxiety, improves learning and attention span, and normalizes brain-wave patterns.
- **Ginkgo Biloba** Research shows that by enhancing blood flow, ginkgo not only prevents the progression of Alzheimer’s disease, but also enhances memory and mental performance in younger people as well.

• **Phosphatidylcholine** is a phospholipid that forms the structure of nerve cell membranes and declines with age. Phosphatidylcholine is one of the building blocks of acetylcholine, a neurotransmitter that is key to helping you feel more alert and clearheaded, and to improving memory and concentration.

• **Phosphatidylserine** is also the building material for neurotransmitter receptor sites. It is essential for memory and mental function. It improves mood, memory, stress resistance, learning, and concentration.

After giving her a prescription for some lab work, I drew up a list of supplements for her to take in addition to a multivitamin high in antioxidants: a 1000 mcg. tablet of vitamin B12 daily to take under her tongue (for better absorption), plus a combination formula of ginkgo biloba, phosphatidylcholine, choline, vinpocetine, DMAE, and huperzine called Brain Cell Support *Plus*, 2 capsules daily. In addition I prescribed phosphatidylserine, 100 mg. twice daily, and acetyl-L-carnitine, 500 mg. twice daily. This seemed like a lot to Mira, who was in charge of giving it to Dora, however she was willing to try it to get her mother back.

**“Within eight weeks, Dora had regained many of her faculties. A miracle? Yes and no. Her vitamin B12 deficiency, common in the elderly who often absorb it poorly, had been interfering with her neurotransmitter production.”**

You can experiment with various combinations of these remedies, adding in one at a time and seeing how you respond. You can take them in convenient combination formulas as well.

## Clinical Outcome

Back to Dora, who sat listless and withdrawn next to her daughter Mira. With Dora’s permission, I gave her an injection of B vitamins, predominately B12 and folic acid. This had an almost immediate effect on her demeanor and energy. She perked up and began to carry on a conversation with me. She also remembered that some years ago, her family doctor had given her “energy shots” of B12 every few weeks.

Within eight weeks, Dora had regained many of her faculties. A miracle? Yes and no. Her vitamin B12 deficiency, common in the elderly who often absorb it poorly, had been interfering with her neurotransmitter production. The ginkgo and vinpocetine helped restore brain blood flow, getting more oxygen to her brain. And the DMAE and choline restored her neurotransmitter levels.

Dora’s newfound alertness and energy allowed her to take daily walks in the park which helped even further. Fresh air, sunlight, exercise, and nature all have healing effects on the brain and body.

\*

## Boosting Memory Naturally with Vinpocetine

Vinpocetine is another powerful memory-enhancer that facilitates cerebral metabolism by improving cerebral microcirculation, stepping up brain cell ATP production, and increasing utilization of glucose and oxygen. Vinpocetine has the unique ability to selectively increase blood flow to the brain, particularly improving blood flow to the impaired area, without lowering blood flow to other parts of the body.

Because of its selective effects on improving cerebral circulation, vinpocetine is often used for the treatment of cerebral circulatory disorders such as memory problems, acute stroke, aphasia (loss of the power of expression), apraxia (inability to coordinate movements), motor disorders, dizziness and other cerebro-vestibular (inner-ear) problems, and headache.

In a series of studies involving 882 patients with neurological disorders ranging from stroke to cerebral insufficiency, vinpocetine was found to confer significant improvements in 62% of the patients. In one of the studies, cerebral insufficiency patients were

asked to memorize a list of 10 words. Without vinpocetine the subjects were able to memorize an average of six words. After a month of treatment the average went up to 10 words.<sup>1</sup>

Reactive oxygen species (ROS) are believed to play a crucial role in the neuronal damage occurring in ischemic injury (stroke) and neurodegenerative disorders. Researchers at the Center for Neurosciences in Portugal performed animal studies to examine the antioxidant effects of vinpocetine to prevent the formation of ROS and lipid peroxidation in brain synaptosomes. They found that vinpocetine significantly decreased oxidative stress and inhibited ROS formation up to 83%. The researchers concluded that the antioxidant effects of vinpocetine contributed to reducing neuronal damage in pathological situations.<sup>2</sup>

### References:

1. Gedeon Richter product literature, Cavinton.
2. Santos MS, Duarte AI, Moreira PI, Oliveira CR Synaptosomal response to oxidative stress: effect of vinpocetine. *Free Radic Res* 2000 Jan;32(1):57-66

## Saw Palmetto No Benefit in Major Prostate Study

**S**aw palmetto failed to relieve symptoms of enlarged prostate, even when men took the herbal supplement in very high doses, according to a new study published Sept. 28, 2011, in the *Journal of the American Medical Association*.

About half of all men over age 50 have BPH, which becomes more common as men age. Many men in the U.S. take saw palmetto extract to reduce symptoms of a swollen prostate, such as frequent urination and a sense of urgency. Its use in Europe is even more widespread because doctors often recommend saw palmetto over more traditional drug treatments.

Results of the new study question the effectiveness of saw palmetto for a condition known as benign prostatic hyperplasia (BPH). Earlier studies of saw palmetto have produced conflicting results, and none had evaluated its benefits in high doses. In the current study, however, men took up to three times the standard dose of saw palmetto.

“Now we know that even very high doses of saw palmetto make absolutely no difference,” said study co-author Gerald Andriole, MD. “Men should not spend their money on this herbal supplement as a way to reduce symptoms of enlarged prostate because it clearly does not work any better than a sugar pill.”

The multi-center study involved more than 300 men, ages 45 and older, who had moderate symptoms of an enlarged prostate, such as frequent urination, difficulty emptying their bladders and a weak urine stream. The men were randomly selected to receive a daily dose of saw palmetto extract, beginning at 320 milligrams, or a placebo.

After 24 weeks, the saw palmetto dosage was increased to 640 milligrams a day, and after another 24 weeks, to 960 milligrams a day – triple the standard dose. In all, men took saw palmetto or a placebo for nearly 17 months. Neither the physicians nor the patients knew who was taking what regimen until the end of the study.

The researchers found that among men who took saw palmetto, prostate problems improved slightly but not more than in men taking a placebo.

“We commonly see this in clinical trials,” Andriole explains. “Patients often report an improvement in symptoms because they are taking something, even if it is a placebo. But in this study, there was

no benefit to taking saw palmetto over the placebo.”

The researchers determined that saw palmetto had no greater effect than the placebo on BPH symptoms as well as other conditions related to an enlarged prostate such as waking at night to urinate, PSA level and bladder control.

**Source:** Michael J. Barry, Sreelatha Meleth, Jeannette Y. Lee, et.al. Effect of Increasing Doses of Saw Palmetto Extract on Lower Urinary Tract Symptoms: A Randomized Trial. *JAMA*, 2011; 306 (12): 1344-1351.

## Falls May be Early Signs of Alzheimer's

**F**alls and balance problems may be early indicators of Alzheimer's disease. Researchers at Washington University School of Medicine in St. Louis found that people with brain changes suggestive of early Alzheimer's disease were more likely to fall than those whose brains did not show the same changes. Until now, falls had only been associated with Alzheimer's in the late stages of dementia.

“If you meet these people on the street, they appear healthy and have no obvious cognitive problems,” says lead author Susan Stark, PhD, assistant professor of occupational therapy and neurology. “But they have changes in their brain that look similar to Alzheimer's disease, and they have twice the typical annual rate of falls for their age group.”

Stark and her colleagues recruited 119 volunteers from studies of aging and health at Washington University's Knight Alzheimer's Disease Research Center. All the participants were 65 or older and cognitively normal.

Brain scans showed that 18 participants had high levels of amyloid plaques, a hallmark of Alzheimer's. The other 101 volunteers had normal amyloid levels in the brain.

About one in three adults age 65 or older typically fall each year. But in the 18 participants with high amyloid levels in the brain, two-thirds fell within the first eight months of the study. High levels of amyloid in the brain were the best predictor of an increased risk of falls.

“Falls are a serious health concern for older adults,” Stark says. “Our study points to the notion that we may need to consider preclinical Alzheimer's disease as a potential cause.”

**Source:** Washington University School of Medicine (2011, July 19). Falls may be early sign of Alzheimer's. *ScienceDaily*.

## Chinese Club Moss Extract May Improve Cognition In Alzheimer's Disease

**E**xisting evidence suggests that patients with Alzheimer's disease who have taken Huperzine A have improved general cognitive function, global clinical status, functional performance and reduced behavioral disturbances compared to patients taking placebos. Researchers came to this conclusion after studying data in six trials that involve a total of 454 patients.

Part of the damage seen in Alzheimer's disease is a loss of acetylcholine-containing neurons in the basal forebrain. This suggests that drugs that could inhibit cholinesterase, which breaks down acetylcholine, could increase the ability of remaining cholinergic neurons.

Scientists know that Huperzine A can block acetyl cholinesterase and that it can work both in the peripheral and central nervous systems. This makes it a promising agent for treating various forms of dementia including Alzheimer's disease.

“These findings are based on small number of trials, but the data indicate that it would be well worth setting up some more high quality assessments of this interesting drug,” says Associate Professor Hongmei Wu, who led this research and works in the Department of Geriatrics at the West China Hospital of Sichuan University.

**Source:** Wiley-Blackwell (2008, April 17). Chinese Club Moss Extract (Huperzine A) May Improve Cognition In Alzheimer's Disease.

## Poor Sleep Quality Increases Risk of High Blood Pressure

**R**educed *Slow Wave Sleep* (SWS) is a powerful predictor for developing high blood pressure in older men, according to new research in *Hypertension: Journal of the American Heart Association*.

SWS, one of the deepest stages of sleep, involves relatively slow, synchronized delta brain waves and is characterized by non-rapid eye movement (non-REM) from which it's difficult to awaken. Researchers from found that people with the lowest level of SWS had an 80 percent increased risk of developing high blood pressure.

“Our study shows for the first time that poor quality sleep, reflected by reduced slow wave sleep, puts individuals at significantly increased risk of developing high blood pressure, and that this effect appears to be independent of the influence of breathing pauses during sleep,” said Susan Redline, M.D., the study's co-author.

*Continued on page 8*



# Letters

John Steinke, L.Ac.



## Customer Asks About Cost of AllerPhase Formula

Dear Tango,

I would like your reply to my comment. I was looking over your supplements in your newsletter. One thing I looked at was *AllerPhase*, but I am sure my issue would apply to most of your supplements.

You have a price of \$69.95 for a bottle of 60 tablets, and the directions say take one or two capsules twice a day. If someone takes two capsules twice a day they are going to need two 60 capsule bottles per month. That is approximately \$140 per month. Nutritional supplement backers complain about the high prices of pharmaceutical drugs and side effects, etc. but \$140/month to me is ridiculous.

What is your response? Thank you for your time,

Bernard

Dear Bernard,

*Thank you for your comment. We price all of our products as low as we possibly can for our customers, but high enough that we can stay in business as a small company.*

*All of our products are exclusive blends that are unique in the supplement field – mainly because they work and provide noticeable changes and health improvements for our customers. Each has different manufacturing costs depending on the scarcity and quality of the herbs used to achieve the results we expect our supplements to provide.*

*AllerPhase is a proprietary blend that is very expensive to produce. It has unique ingredients and extra concentration, such that it works for our customers in as little as one capsule per day. We recommend that people who use the product start at 2 capsules, 2 times per day to achieve noticeable benefits. Once those benefits are established you can begin reducing the amount, usually by 1 capsule per day, every 3 to 4 days.*

*Your goal is to find the lowest intake possible to support the benefits. Ongoing use does provide a restorative benefit.*

*Most of our customers end up saving money when using this supplement because it works, thereby reducing the need for over-the-counter medicines, doctor's appointments and expensive prescriptions.*

*AllerPhase is our best-selling product and has grown in popularity each year, primarily based on word-of-mouth from one happy user to friends and family. We all know lots of people who suffer seasonally or even year-long depending on where they live and their exposure to molds, pollens, animal dander, mites and other allergens.*

*With regards,*

John Steinke, L.Ac.

*P.S. I've practiced acupuncture and herbal medicine for 25 years now. From the beginning I have had formulas available to me for allergies. Nothing approaches AllerPhase in my clinical experience.*

*But, when we were offered the opportunity to license this formula 7 years ago, I advised our company to do so. Even though it is expensive, I thought the difference versus the other formulas I had used and recommended in the past was well worth the extra price – especially since you can use less as your health is improved using the product.*

## Client Pleased with Results of ArthriPhase and OsteoPhase

Dear John,

I began taking *OsteoPhase* and *ArthriPhase* in February, 2010. I had stopped taking Fosamax due to the fact that I had been on it over 10 years, and read that after 10 years there could be side effects. I did some research and after discovering *OsteoPhase* I called and spoke with John Steinke. I sent him my last bone density scan, taken in 2009, so that he could study my charts. John suggested that I start on 2 capsules of *OsteoPhase* a day – one at night and one in the morning. He also recommended the same for *ArthriPhase*, since I have had osteoporosis and some degeneration in my lumbar spine for many years.

I had my new bone density done this last July, 2011, and we found great results. The DEXA scan showed a healthy increase in my bone density in my lumbar spine, lifting me out of noticeable osteoporosis to osteopenia – a very significant reduction in risk of fracture to my spine.

Just to make sure I could do everything possible, I included regular exercise as part of my natural program – Zumba, walking, weight lifting and some yoga.

Thank you very much for all of your help, my whole life is brighter because of you and your products. I'm 68 years old and wanted to share my story with you. I'm a very happy customer.

Jeannette P.

## 76-Year-Old Mother Outwalks Her Treadmill

Dear John,

I love all of your products and recommend them to my clients at Peak Performance Nutrition here in Las Vegas. But there is one special client I am particularly pleased has really been helped by your *Herbal Boost* supplement – my 76-year-old mother!

Twenty years ago she had a bad accident with multiple fractures in her lower spine. They had to put in a titanium cage in order for her to be able to walk again. Since that time she has been in constant pain and not moving around very much. Plus, her legs stayed very swollen, I think, due to poor blood circulation.

Her joints hurt all the time and she had to constantly take pain-killers. The swelling and pain in her hands was so bad that she could not even take off her wedding ring that was always too tight.

On top of all that, she developed Type 2 diabetes and her doctors had her on several medicines to control her high blood sugar. She became very weak recently and was shaky all the time.

I know that exercise is important for blood circulation and to help control weight and blood sugar for diabetics. I continually encouraged her to move more.

She did try, but could usually manage only walking on her treadmill for about 20 minutes a few times a week. She always stopped because of the constant pain and tiredness.

I talked to John Steinke, the acupuncturist at Tango, and he recommended she use *Herbal Boost* because it was a very useful supplement for blood circulation.

I gave her some *Herbal Boost* about 3 months ago, hoping it would help her, if only just a little bit. She started taking 1-2 capsules once or twice a day.

After only a few weeks on *Herbal Boost*, she told me she was feeling much better with a lot of the swelling gone and more energy. Then it got better and better because she's gotten stronger every day.

She now uses her treadmill over 90 minutes a day! And this is outdoors in the heat early each morning in Las Vegas.

She only stops sometimes because the treadmill stops working after about an hour in the heat. I'm going to have to get her a new treadmill.

She complains about sore legs. I've told her it's not because of poor circulation but because she is working out too much. I want her to rest more so her muscles can adapt and get stronger. But, she doesn't want to give up her morning treadmill.

She's now lost 20 pounds in 3 months – I chart this for her. The swelling is gone from her hands and legs. She can even take her wedding ring off and her hands don't shake any more.

This part is really important to me – her doctors have reduced her diabetes medicines because her blood sugar stays in normal ranges. Her fasting blood sugar each morning is now between 100-105. They even told her she doesn't have to come in so frequently for checkups.

I'm very grateful to Tango for *Herbal Boost* because now my worry about my mother is that she doesn't do too much exercise, rather than fearing that she would soon be in a nursing home.

Sincerely yours,

Nick Prvulov  
Peak Performance Nutrition  
Las Vegas, Nevada

Dear Nick,

*Thank you so much for your great story on how much Herbal Boost is helping your mother. It's incredibly inspiring to me and we are glad you shared it with us.*

*It must be a big relief for you that she is*

*much more healthy and so active now. I hope you don't have to buy her a new treadmill!*

*During the 20 years I practiced sports acupuncture in the SF Bay area, Herbal Boost was one of the most useful supplements I gave to my athletes. I also recommended ImmunoPhase for immune health and GastroCalm for stomach issues to all of them.*

*Herbal Boost has more herbs than the Tango Vital Cell formula for improving blood circulation, particularly at the capillary or microcirculation level. That's where all of the exchanges take place between our tissue cells and our blood stream. I think that's the reason it's so useful in many different types of recovery and to boost the performance of other supplements. It's probably also why your mother has experienced such an improvement in so many different ways.*

*I liked my elite endurance athletes to take Herbal Boost every day because it helps a lot to improve lung function. The lungs are packed with capillaries within the small little lung sacs called alveoli. Our red blood cells pick up oxygen there to deliver to the rest of the body – to our organs, glands, brain and working muscles. Most people also don't realize that the number one physiological decline in aging is loss of lung function.*

*It is very likely that bad blood circulation at the capillary level is the central health issue for your mother. But, I think she now qualifies in my book as an endurance athlete with her 90 minutes a day on her treadmill.*

*Your mom's results are not typical and we don't expect everybody to have the same type of noticeable results. But we do recommend Herbal Boost for anyone wanting a bit extra out of the rest of their health programs.*

*With our best wishes to you, and for continued improvements for your mother.*

John Steinke, L.Ac.

#### Client Praises Efficacy, Benefits of ImmunoPhase

Hi John,

I never write recommendations, but this product works like nothing else. I've turned so many friends on to it, all of them happy believers now! I picked up 3 bottles

yesterday, took a couple of doses and feel fine today. Yea *ImmunoPhase*! Here's my review.

Since discovering *ImmunoPhase* in a tiny store in Sonoma some 10 years ago, it's been a staple on my supplement shelf. I've tried many immune boosters over the years, but this one and this one alone, works for me. I don't even take it every day. I live on the edge, waiting for something to try to get me. If I feel run down, like a grizzly cold-monster is perched on my shoulder with fangs exposed, I pop a few capsules throughout the day. Getting *ImmunoPhase* into my system at first sign of weakness usually knocks whatever's coming right out of my body. I don't get sick.

I travel extensively with my work, spending months abroad in Asia and parts of Europe, cooped up on interminably long plane rides, suffering jet lag, breathing lots of funny foreign germs, suffering jet lag and working around others who are sick. My travel (and winter) regimen includes taking 1-2 caps per day if I can remember, and increasing my intake if I'm around sick people or feel a bit down myself. I've had one minor, short-lived cold in all this time. Sounds too good to be true, doesn't it?

I don't randomly recommend supplements for other people, but this one? Without hesitation. It's the best.

Kate Knudsen  
San Francisco, CA

#### ProstaPhase Offers Relief, Helps Husband Sleep Through Night

Dear John,

My husband took ProstaPhase. He has had problems with the prostate for the last 10 years. He took multiple medications before, but I can say that *ProstaPhase* gave him the most relief in such a short time.

The biggest improvement was that he could sleep peacefully at night instead of getting up every 1.5 or 2 hours. I am confident that prolonged use of *ProstaPhase* will bring him even more relief.

Tabulations after 5 weeks show that his nocturia reduced from 3-4 times per night down to 1 time per night. Other symptoms essentially unchanged.

V. R.

## Huperzine A

Continued from page 3

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## Nutrition Update

Continued from page 5

Men who spent less than 4 percent of their sleep time in SWS were significantly more likely to develop high blood pressure during the 3.4 years of the study. Men with reduced SWS had generally poorer sleep quality as measured by shorter sleep duration and more awakenings at night and had more severe sleep apnea than men with higher levels of SWS.

The researchers conducted comprehensive and objective evaluation of sleep characteristics related to high blood pressure in 784 men who didn't have hypertension. The researchers assessed a wide range of measurements of sleep disturbances, such as frequency of breathing disturbances, time in each sleep state, number of nighttime awakenings, and sleep duration.

Generally, older men and women are more likely to develop high blood pressure than younger people. Sleep disorders and poor quality sleep are more common in older adults than in younger ones. Obesity is also associated with hypertension, researchers said.

Slow wave sleep has been implicated in learning and memory with recent data also

highlighting its importance to a variety of physiological functions, including metabolism and diabetes, and neurohormonal systems affecting the sympathetic nervous system that contribute to high blood pressure, researchers said.

Good quality sleep is the third pillar of health, Redline said. "People should recognize that sleep, diet and physical activity are critical to health, including heart health and optimal blood pressure control. Although the elderly often have poor sleep, our study shows that such a finding is not benign. Poor sleep may be a powerful predictor for adverse health outcomes. Initiatives to improve sleep may provide novel approaches for reducing hypertension burden."

**Source:** Maple M. Fung, Katherine Peters, Susan Redline, et.al. Decreased Slow Wave Sleep Increases Risk of Developing Hypertension in Elderly Men. *Hypertension* 2011.

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