

November 13, 2007

Printer Friendly

## In this issue

Life Extension Update Exclusive

Beta-carotene supplementation associated with reduced cognitive decline

Health Concern

Mild cognitive impairment

Featured Products

Life Extension Mix Capsules

Beta Carotene Capsules

Life Extension Magazine

November, 2007: Enhancing cognitive function with pregnenolone

Life Extension Update Exclusive

### **Beta-carotene supplementation associated with reduced cognitive decline**

The November 12, 2007 issue of the AMA journal *Archives of Internal Medicine* reported on a study which found that taking beta carotene supplements for 15 years or more may confer a protective effect against cognitive decline in older men.

The research involved 5,956 men over the age of 65 who participated in the Physicians' Health Study II, a randomized trial of beta carotene and other nutritional supplements for the prevention of chronic disease. The Physician's Health Study II is a continuation of the Physicians' Health Study which tested the effect of 50 milligrams beta carotene every other day and low dose aspirin on male participants. For the current study, Francine Grodstein, ScD, of Brigham and Women's Hospital and Harvard Medical School and her associates administered cognitive function tests to 4,052 men who participated in the original study since 1982, and 1,904 newer recruits enrolled between 1998 and 2001.

The team found that those who received beta carotene for an average of 18 years had significantly higher scores on several tests of cognitive function compared with those who received a placebo. Among men who had received short term treatment with beta-carotene there was no improvement observed.

"The results support the hypothesis that long-term supplementation may be necessary to achieve cognitive benefits," the authors remark. They note that the Nurses Health Study found that a decade or more of vitamin E supplementation was associated with improved cognition, while failing to find the same result with shorter-term use. Similarly, the Honolulu-Asia Aging Study found improvements in cognitive impairment associated with vitamin C and E supplementation only after 10 years. In animals, brain aging starts early in adult life, and long-term nutrient exposure may be required for neuroprotection.

"In this generally healthy population, the extent of protection conferred by long-term treatment appeared modest; nonetheless, studies have established that very modest differences in cognition, especially verbal memory, predict substantial differences in eventual risk of dementia; thus, the public health impact of long-term beta carotene use could be large," the authors write in their commentary. They conclude that "the public health value of beta carotene supplementation merits careful evaluation. Moreover, as these data support the possibility of successful interventions at early stages of brain aging in well-functioning subjects, investigations of additional agents that might also provide such neuroprotection should be initiated."

Health Concern

### **Mild cognitive impairment**

It is estimated that up to one third of adults will experience a gradual decline in cognitive function known as mild cognitive impairment as they age (Low LF et al 2004; Busse A et al 2003). Less severe than dementia, mild cognitive impairment is defined

as cognitive defects that do not interfere with daily living. It may include slower thinking, a reduced ability to learn, and impaired memory. While many conventional physicians view these defects as an inevitable consequence of aging, newer research has uncovered possible reasons for mild cognitive impairment and has also identified potential therapies that may enable people to battle age-related mental decline more effectively than ever before. Minimizing cognitive defects will become even more important as the average life span continues to lengthen and hundreds of thousands of people head into their 80s and 90s, when the risk for cognitive decline is greatest.

A typical American diet does not provide enough essential vitamins. Worse yet, older people are at greater risk for vitamin deficiency because they tend to eat less, although their requirements for certain vitamins, such as B6, actually rise with age. Older people may also have problems with efficient absorption of nutrients from food. Even healthy older people often exhibit deficiencies in vitamin B6, vitamin B12, and folate.

Vitamins are involved in biochemical processes throughout the body and appear to be involved in protecting and enhancing cognitive function. In particular, the B vitamins play an integral role in the functioning of the nervous system and help the brain synthesize chemicals that affect mood. A balanced complex of the B vitamins is essential for energy and for balancing hormone levels. An article in the Journal of Psychopharmacology described a study of 76 older men who were given vitamin B6 or placebo and then tested on memory function. The authors concluded that vitamin B6 improved storage and information retrieval (Deijen JB et al 1992). Another study reviewed vitamin B12 deficiency in relation to memory impairment and neuropathy in older people and concluded that both memory impairment and neuropathy can be successfully managed with vitamin B12 injections or supplementation (Carmel R 1996). One study determined that low levels of folate (a B vitamin) are associated with cognitive deficits and that patients treated with folic acid for 60 days showed a significant improvement in both memory and attention efficiency (Fioravanti MFE 1997).

[http://www.lef.org/protocols/neurological/mild\\_cognitive\\_impairment\\_01.htm](http://www.lef.org/protocols/neurological/mild_cognitive_impairment_01.htm)

## Featured Products

### Life Extension Mix Capsules

Life Extension Mix saves time and money by combining the most popular nutrient supplements in one product, eliminating the need to take separate bottles of B-complex, vitamins C and E, mineral supplements and much more that would be required to achieve the same effects. Life Extension Mix supplies the most powerful antioxidants, including water and fat soluble vitamin C, the ideal form of alpha vitamin E, and plant extracts that help protect against cellular DNA damage. Other ingredients in Life Extension Mix enhance beneficial DNA methylation patterns, and help maintain glycemic control and healthy levels of LDL in those already within normal range.



<http://www.lef.org/newshop/items/item01234.html>

### Beta-Carotene Capsules

Beta-carotene is the most potent precursor to vitamin A, but its conversion to vitamin A in the body is limited by a feedback system. It is an important antioxidant in its own right and one that can only build up to toxic levels in rare circumstances. Beta-carotene helps support immune health by enhancing the function of the thymus gland.



<http://www.lef.org/newshop/items/item00664.html>

## Life Extension Magazine

### Enhancing cognitive function with pregnenolone

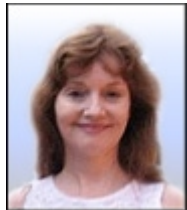
As a result of normal aging, key hormone levels decline, resulting in a detrimental impact on memory and cognitive function. Scientists believe that the hormone pregnenolone has vast potential for maintaining healthy cognitive function and may be “the

most potent memory enhancer yet reported.”

[http://www.lef.org/magazine/mag2007/nov2007\\_report\\_pregnenolone\\_01.html](http://www.lef.org/magazine/mag2007/nov2007_report_pregnenolone_01.html)

If you have questions or comments concerning this issue or past issues of *Life Extension Update*, send them to [ddye@lifeextension.com](mailto:ddye@lifeextension.com) or call 954 202 7716.

For longer life,



Dayna Dye  
Editor, Life Extension Update  
[ddye@lifeextension.com](mailto:ddye@lifeextension.com)  
954 766 8433 extension 7716  
[www.lef.org](http://www.lef.org)

Sign up for Life Extension Update at <http://mycart.lef.org/Memberships/NewsSubscription.aspx>

Help spread the good news about living longer and healthier. Forward this email to a friend!

View previous issues of Life Extension Update in the Newsletter Archive.

All Contents Copyright © 1995-2009 Life Extension Foundation All rights reserved.

**LifeExtension®**

These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease. The information provided on this site is for informational purposes only and is not intended as a substitute for advice from your physician or other health care professional or any information contained on or in any product label or packaging. You should not use the information on this site for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.