From: Wendy Campbell [wendycnmd@cox.net]
Sent: Wednesday, May 23, 2007 9:10 PM
To: A 'Wendy Campbell'
Subject: Excess Calcium Linked to Dementia

This is very interesting.... A very good reason I do not encourage people to take additional calcium (unless their doctor recommends it). When I was a midwife I used to see lots of calcium deposits in the placentas of my patients. I assumed this was from the extra calcium they took. Then I noticed that my Juice Plus moms who did not take calcium supplements had very healthy placentas with no calcium deposits!
~Lynn

High Calcium And Vitamin D Intakes Associated WIth Higher Risk Of Cognitive Impairment In Elderly

Science Daily — **Elderly men and women who consumed higher levels of calcium and vitamin D are significantly more likely to have greater volumes of brain lesions, regions of damage that can increase risk of cognitive impairment, dementia, depression and stroke.**

Dr. Martha Payne and her co-investigators from Duke and the University of North Carolina examined magnetic resonance imaging (MRI) scans from 232 men and women (79 men, 153 women) between the ages of 60 and 86 (average age 71). All the subjects had at least some brain lesions of varying sizes, including the extremely miniscule ones often seen in even healthy older persons, but those who reported consuming more calcium and vitamin D were markedly more likely to have higher total volume of brain lesions as measured across numerous MRI scans.
Age, hypertension, and other medical conditions - all factors related to the presence of brain lesions - were taken into account during statistical analysis (were controlled for) and were found not to account for the strong relationship between total lesion volume and high intake of calcium and vitamin D. Since the calcium/vitamin D research was part of a longitudinal study of late-life depression, almost half the subjects had been diagnosed with depression. However, the presence or absence of depression also did not appear to influence of relationship between calcium, vitamin D, and brain lesions.
In earlier studies, Dr. Payne's team had found that individuals who consumed more high-fat dairy products had more brain lesions than those who did not follow such a diet but that fat intake in general was not a significant factor. If not the fat, the researchers asked, what was it about a high fat dairy diet that accounts for the positive correlation with brain lesions? This new study points the finger to a prominent component of dairy - namely calcium - and the Vitamin D that is found in many dairy products and vitamin D-fortified foods.
In addition to its well-known function in bone health, calcium is important to the functioning of nerve and muscle cells. **But when too much calcium is taken up into blood vessel walls, the calcium becomes incorporated into bone-like deposits that can lead to loss of elasticity and narrowing of the blood vessels.** Vitamin D helps regulate calcium retention and activity, which may further enhance this arterial calcification. If blood vessels in the brain are affected, damage could lead to brain lesions.
"At this point," says Dr. Payne, "we do not know if high calcium and vitamin D intake are involved with the causation of brain lesions, but the study provides support to the growing number of researchers who are concerned about the effects of too much calcium, particularly among older adults, given the current emphasis on promoting high intakes of calcium and vitamin D."
Dr. Payne and her colleagues are continuing to investigate the effect and significance of high calcium and vitamin D intakes on brain lesions, including possible causality, in older patients with and without late-life depression. This research was funded by grants from the National Institute of Mental Health. MRI brain scans of a person with lesions are available to reporters, courtesy of Duke University's Neuropsychiatric Imaging Research Laboratory.
Duke University scientist Dr. Martha Payne reported this finding at Experimental Biology 2007, in Washington, DC. Her presentation, on May 1, is part of the scientific program of the American Society for Nutrition.