

The Nutritional Influence on Cognitive Decline

Charles D Shively*

Chief Executive Healthcare Officer, USA

***Corresponding Author:** Charles D Shively, Chief Executive Healthcare Officer, St. Petersburg, Florida USA.

Received: February 18, 2016; **Published:** February 18, 2016

First Stage of Cognitive Decline is Mild Cognitive Impairment (MCI)

Cognitive decline is associated with various neurodegenerative diseases which are caused by changes in the brain with neurotransmission decay. These neurodegenerative diseases can include mild cognitive impairment (MCI), Memory Loss, Alzheimer's disease, other Dementias and in certain cases Parkinson's disease.

According to the United States Mayo Clinic Health System, MCI is an early stage warning of neurodegeneration and is the intermediate stage between the expected cognitive decline of normal aging and the more serious decline associated with dementia. Typical problems involve memory change, language difficulties with individual awareness of differences in thinking and judgment that are greater than normal age-related changes. If one has mild intermediate impairment, there is often an awareness that memory or mental function has changed or lessened although the changes are not severe enough to interfere with day-to-day life and usual activities. With time, MCI may increase one's risk of later progressing to dementia, including Alzheimer's disease, or other neurological conditions. Oddly however, in some cases, people with diagnosed MCI may never get worse and with proper nutrition and the elimination of harmful ingredients in many foods, may eventually get better.

Symptoms and Causes of Mild Cognitive Impairment (MCI)

Individuals with MCI tend to forget things more often, feel increasingly overwhelmed when making decisions or planning steps to accomplish a task or interpreting instructions. For some individuals there may be frequent loss of train of thought or an inability to maintain the progress of conversations, books and movies. Two key observations that MCI may be in place is when individuals have trouble finding their way around familiar environments and family and friends begin to notice these changes. It has been established that individuals with MCI may also experience depression and anxiety with behavioral changes due to irritability and aggression. Apathy can often occur.

The causes of MCI originate in the brain where brain-imaging studies have shown shrinkage of the hippocampus, plaques throughout the brain, enlargement of the brain's fluid-filled spaces (ventricles) and importantly, the reduced use of glucose (for energy) for cells in key brain regions.

Risk Factors for MCI and Clinical Diagnosis Approaches

Increased risk of cognitive change occurs with increasing age and a specific form of a gene known as APOE-e4. Not surprisingly this gene is also linked to Alzheimer's disease. Many health conditions have been linked to MCI and include diabetes, depression, high blood pressure, elevated cholesterol and sleep apnea. Smoking, lack of physical exercise and lack of involvement in mentally or socially stimulating activities can also contribute to cognitive decline. The Mayo Clinic Family Health Book, 4th edition, offers that between 1 and 2 percent of older adults develop dementia every year and among older adults with MCI 6 to 15 percent develop dementia of some type every year.

The most objective assessment or diagnosis for MCI is often based upon a brief test such as the Mini-Mental State Evaluation (MMSE). Other more detailed neuropsychological testing may allow definition of the degree of memory impairment, which types of memory (short, intermediate or long term) are most effected and if other mental skills are impaired.

Citation: Charles D Shively. "The Nutritional Influence on Cognitive Decline". *EC Pharmacology and Toxicology* 2.1 (2016): 34-35.

The Impact of Nutrition on Cognitive Health

Diets low in fat and rich in fruits and vegetables, including regular intake of omega-3 fatty acids, may help protect individuals from cognitive decline and even help with possible remission of symptoms. Blood tests can reveal if Vitamin B-12 deficiencies exist or an underactive thyroid gland may be contributing to the presence of memory impairment and should be requested by the individual during any physician assessment. Dietary supplements such as choline and inositol are supportive of nerve health and many natural supplements including certain balanced vitamin and mineral containing weight loss product formulas can impact the process of neurodegenerative disease.

The Healthcare Professional's Role

All healthcare professionals need be aware of the potential for mild cognitive impairment to progress to the more challenging forms of cognitive decay including memory loss, various dementias including Alzheimer's disease and even Parkinson's disease. During conversations with our clients as part of their regular health assessments, it should be remembered that several of the other medical issues we may be attempting to help solve for the patient/client can be contributors to cognitive decline including the nutritional influence on illness.

Volume 2 Issue 1 February 2016

© All rights reserved by Charles D Shively.