



Reversing Alzheimer's Disease and Mild Cognitive Impairment is Now a Reality *Part 1*

By Scott Vander Wielen, DC, DABCI

Just two months ago, Dr. Dale Bredesen, MD, UCLA released his much awaited book titled, "The End of Alzheimer's Disease," which is the product of decades of research and over 150 peer reviewed medical journal articles.

We probably have all met a cancer survivor, or an HIV survivor, but we have never met an Alzheimer's disease survivor. Thankfully, with the work of Dr. Bredesen, and the help of the Institute for Functional Medicine, that is all about to change.

The methods Dr. Bredesen recommends to reverse Alzheimer's disease is not a new drug therapy, nor combination of drug therapies, but is really and truly a functional medicine approach to brain health. His research on how to reverse Alzheimer's disease is comprehensive, thorough, and centered on finding the right combination of nutritional support along with personalized therapeutic lifestyle changes for each patient.

Dr. Bredesen has determined that there are three different types of Alzheimer's disease or mild cognitive impairment. The first type is referred to as "HOT" in which inflammation is the primary driving force. Inflammation is seen all the way down to the nucleus of the body's cells, causing a dysregulation of metabolic factors including insulin resistance and other hormone abnormalities.

The second type is referred to as "ATROPHIC" or "cold." This type of Alzheimer's disease is identified by having the APOE4 genotype. Characteristically, this type presents with the loss of ability to form new memories, whereas the ability to speak, write and calculate are retained.

The APOE genotype has profound influence on risk factors of Alzheimer's disease or mild cognitive impairment. Each of us receive one APOE gene from each parent. The possible outcomes are either APOE2, APOE3 or APOE4 with any combination of the two since each parent provides one gene. Research shows that having one APOE4 gene means having a 30 percent chance of developing Alzheimer's disease or mild cognitive impairment. However, research also shows that a double APOE4 genotype, which is the APOE4 gene from each parent, means having a 90 percent chance of developing Alzheimer's disease or mild cognitive impairment. This is the single biggest factor in determining risk for developing Alzheimer's disease or mild cognitive impairment and the only effective way to manage it is through mindful living. There is no medication that counteracts the APOE4 gene.

The third type of Alzheimer's disease is referred to as "TOXIC" or "vile." High blood levels of mercury, mycotoxins and other toxic chemicals produced by molds are found, and often are diagnosed. Often these patients have low zinc and high copper and thus a high ratio of copper to zinc. This type typically has the APOE3 genotype, and Alzheimer's disease



doesn't run in their family, and if a relative did develop the disease, it usually occurs after age 80 or so. This type of Alzheimer's usually strikes at a relatively young age with symptoms beginning in the late forties to early sixties, often following great stress. Rather than starting as memory loss, it starts with difficulties involving numbers or speech or organizing. While the first two types can be described as factory downsizing, the third type is like tossing grenades into the building — everything is at risk.

There is also a version called "GLYCOTOXIC" or "1.5," which is when types 1 and 2 occur together. Inflammation, glucose and insulin levels are chronically high.

What is happening in the brain to cause Alzheimer's disease? Basically, the brain is destroying synapses faster than it is creating them. The brain's various proteins and precursors to proteins all play a vital role in managing the balance of synapse production and synapse destruction. This process is present in both Alzheimer's disease and mild cognitive impairment.

When specific diagnostic testing is done to determine which form of Alzheimer's disease a patient has, then a personalized treatment plan can be developed to begin reversing the cause directly at the source.

If I were to describe Alzheimer's disease and mild cognitive impairment as holes in a roof that need to be patched, then there is no one compound that can patch the holes, but we can patch all of them with the right combination.

References: Bredesen, Dale E. "The End of Alzheimer's: the First Program to Prevent and Reverse Cognitive Decline." Dale Bredesen. Avery. 2017.

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