# Dynamic Chiropractic

SENIOR HEALTH

# Top 10 Nutrition / Lifestyle Strategies to Help Prevent Alzheimer's (Part 1)

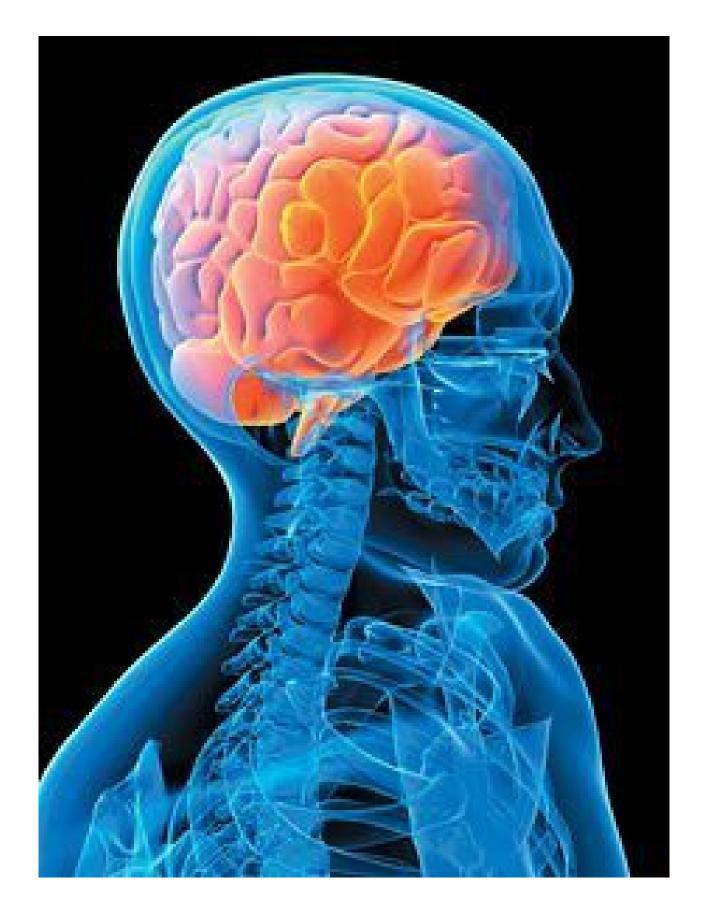
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Alzheimer's disease is the sixth-leading cause of death in the United States and the only cause of death among the top 10 for which medical treatments are unable to prevent or slow the progression of the disease to any appreciable degree. Currently, an estimated 5.4 million Americans are living with Alzheimer's disease. One in eight older Americans has Alzheimer's and nearly half of all people over 85 years of age are afflicted.

Alzheimer's disease consumes \$200 billion of the U.S. health care budget annually. Unless baby boomers take preventive action immediately, Alzheimer's disease statistics will begin to soar in the very near future, as the leading edge of the baby boomers began turning 65 years old in 2011.<sup>1-2</sup>

Research reveals that only 2 percent of all Alzheimer's disease cases are linked to genetic inheritance. So, what is causing the other 98 percent of cases? In recent years many studies have shown that specific dietary and supplementation practices play a major role in the development of Alzheimer's disease - and in its prevention. The following is a quick list of the lifestyle recommendations you should implore your baby boomers and young senior patients to implement immediately to help them prevent the development of Alzheimer's disease, according to the pooled evidence of peer-reviewed research.

1. Control Your Cholesterol



Keep your blood cholesterol below 3.9 mmol/L (150 mg/dL) by consuming a low-animal-fat diet, avoiding as much trans fats, hydrogenated fats and organ meats as possible, as well as other foods high in cholesterol (e.g., egg yolks). These foods elevate blood cholesterol levels, which clog brain arteries, leading to cerebrovascular disease - a major contributing factor to dementia and Alzheimer's disease.

Vascular dementia, the second most common form of dementia after Alzheimer's disease, is caused by insufficient blood flow to brain cells. It is a direct extension of atherosclerosis due to high cholesterol levels, and is often compounded by hypertension, diabetes and smoking.<sup>3</sup>

# 2. Balance Your Blood Sugar

Keep your fasting blood sugar (glucose) level below 5.0 mmol/L (90 mg/dL), as higher glucose levels (and insulin levels, which result from high glucose) lead to type 3 diabetes - a form of Alzheimer's disease caused by high blood glucose and insulin. It is well-established that individuals with type 2 diabetes have twice the risk of developing Alzheimer's than nondiabetic patients; insulin-dependent diabetics have four times the risk.

One reason for this is explained by the fact that there is an enzyme in the brain that breaks down both insulin and amyloid plaque - a hallmark feature of Alzheimer's disease. Thus, in cases in which insulin levels are high (which occurs when blood sugar is too high), the brain enzyme is so busy breaking down insulin that it allows amyloid plaque to build up. High levels of amyloid plaque (a protein also known as *beta-amyloid protein*), essentially "strangles" brain cells from the outside and generates copious amounts of free radicals, further damaging brain cell structure and function.

High blood sugar also increases brain inflammation, which contributes to Alzheimer's disease development.<sup>4</sup> As well, Alzheimer's brains demonstrate insulin resistance, which is triggered by sustained high blood-sugar levels.<sup>5</sup>

#### 3. Remain at Your Ideal Body Weight

Overweight individuals have a higher risk of Alzheimer's disease, primarily due to higher levels of circulating insulin (insulin resistance produced by larger fat cells) and glucose levels - leading to type 3 diabetes. 1-2

# 4. A Multivitamin/Mineral Matters

Take a high-potency multiple vitamin/mineral each day that contains a B-50 complex, 1,000 IU of vitamin  $D_6$  and the following antioxidants: vitamin E (400 IU) and vitamin C (1,000 mg). Studies show that, after age 60, the brain begins to shrink (atrophy) by 0.5-2.0 percent per year. People who develop cognitive dysfunction (a prelude to Alzheimer's disease) and Alzheimer's disease show a faster rate of brain atrophy.

The only intervention shown to slow brain atrophy thus far is supplementation with B vitamins.<sup>7</sup> Other studies show that vitamin E and vitamin C supplements act as antioxidants in the brain, slowing brain oxidation (free-radical damage to brain cells).

Brain oxidation is a consistent feature in Alzheimer's disease, and some studies show that individuals taking vitamin E and vitamin C supplements (at a minimum threshold dosage) are less prone to future onset of Alzheimer's disease.<sup>8</sup> Vitamin E supplementation has been shown to slow the progression of Alzheimer's disease in several clinical trials.<sup>9</sup>

#### 5. Get Plenty of Fatty Acids

Take an essential fatty acid supplement each day that contains fish, flaxseed and borage seed oil. The capsule should contain 400 mg each of these three oils. This daily dosage provides the amount

of EPA and DHA shown to reduce risk of Alzheimer's disease in large population studies (epidemiological studies).

Eating fish twice per week is also helpful in this regard. Eating fish more than three times per week is linked to increased risk of mercury toxicity, which may damage the brain, according to the Environmental Protection Agency. Thus, essential fatty acid supplementation is a critical component of Alzheimer's disease prevention.<sup>10-21</sup>

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