

**Alzheimer’s Disease
December 4, 2023**

Summary of Alzheimers:

Dr. Dale Bredesen Protocol is successful in prevention and reversal of early stages of Alzheimers. It is not a one size fits all approach and will recommend treatment strategies that are highly specific to individual participants. Here, he introduces the first survivors of Alzheimer’s: https://youtu.be/WDzas4_EvUw?si=A0QIRmQyOKtioYVK

Hal Crammer retired from the military and created small assisted living homes in Arizona. He wanted to provide the residents with the best diet, so first tried the vegan diet, but the residents got worse. Then he tried the carnivore diet and found it reversed the symptoms of Alzheimer's. He combines the carnivore diet with the Bredesen Protocol and has gotten good results since implementing the Carnivore Diet for increased ketogenesis. <https://aparadiseforparents.com/memory-care/>

<https://youtu.be/8owAcO8IIwY?si=55Q0wNep9qlfBg7L>

Dr. Mary T. Newport reverses husband’s early onset Alzheimer’s with MCT and coconut oil. Ketone esters are even more effective, but are prescriptions. Clinical studies of these oils and the ketogenic diet are just beginning.

Her TED Talk: <https://youtu.be/Dvh3JhsrQ0w?si=O4vSDdfLNKhojWF7>

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The Bredesen Protocol has been shown to reverse symptoms of Alzheimer’s Disease. The earlier the treatment is started, the more hope for reversal. The Bredesen Protocol is not a one size fits all approach and will recommend treatment strategies that are highly specific to individual participants.

In his Book, the End of Alzheimer’s, he describes the success of 200 patients. The individualized protocol addresses 37 causes, along with some general lifestyle changes. The Recode Protocol addresses detoxification, infections, metabolic dysfunction, hypoxia, inflammation.

Treatment strategies that are highly specific to individual participants. However, these typically fall into the following main areas:

This is done by tracking and treating/optimizing the following parameters:

- Homocysteine (a predictor of some health problems, including Alzheimer’s disease)
- B vitamins
- Choline
- Inflammation
- Insulin sensitivity
- Hormones

Zinc: Copper ratio
 Vitamin D
 Heavy metal toxicity
 Antioxidants

Protocol involves:

Nutritional/botanical supplementation schedule.

Diet

Dietary optimization and a move towards a ketogenic diet
 Improving gastrointestinal health.

Lifestyle

Stress reduction

Sleep optimization

Exercise – focusing on the right type, frequency and intensity. Have some aerobic exercise (increase ketones) and strength training (builds muscle, improves insulin resistance, increase ketones). Improve blood flow and oxygenation. Resistance bands, exercise with oxygen therapy (EWOT).

<https://youtu.be/Wy-Gy8y7MTw?si=3KanFZZkiEsPWnxP>

Brain strategies - Regular brain training exercises

Dr Bredesen website:

<https://www.apollohealthco.com/know-your-cq/>

The Root Causes of Alzheimer's Disease - Dr Bredesen

https://youtu.be/s4EZihtPm_4?si=U-VC8vOFNdUIIxpI

A combination of factors, different for each person.

Get a 'cognoscopy' after age 45. Entails: Genetic testing (ApoE4 is a risk factor), blood testing, functional medicine. Imaging if symptoms are advanced.

Rhino/sinus microbiome is important - direct link to the brain. Alzheimer's pathology looks like it has come from the nose.

The microbiomes are critical: Organisms from the gums, nose and sinuses.

Infections including fungal, viral and bacterial (*P. gingivalis* causes gingivitis and inflammation of brain).

The Amyloid and Tau are protective responses to neuronal damage.

Exposure to metals or other toxins - Amyloid binds metals.

Mycotoxins activate the innate immune system. For people with a good immune system, an adaptive immune system responds and eliminates the infection. Others with a poor immune system, overproduce the amyloid and tau.

A set of signals that build and break down these plaques.

Diet: High carb, pro-inflammatory diet.

Five Types of Alzheimer's - Dr Bredesen:

https://youtu.be/J7JNkUcCkC0?si=rE_teuqyd2jLOoIh

Driven by Different Factors, Dominant Drivers:

- Type 1: Inflammation from poor gut or mouth microbiome, usually from poor habits. Chronic molds, borellia, other infections or sugar cause inflammation and breakdown plaque.
- Type 2: Poor internal support system - low hormones, D3, NGF, BDNF (Atrophic or cold type). Hormones, including vitamin D3 are trophic, and sudden withdrawal can cause the buildup of plaque.
- Type 1.5: Features of both 1 & 2 - Sweet Alzheimer's. Glycation of Protein. A1C. Insulin resistance.
- Type 3: Toxins - metals, air pollution, organic toxins (volatiles), mold toxins. Biotoxins have cortical presentation. In younger people. Treated differently.
- Type 4: Vascular Alzheimer's - poor blood flow and oxygenation, especially at night.
- Type 5: Traumatic Alzheimer's - from brain injury.

Factors in Alzheimer's include:

- Nocturnal hypoxia -
 - Nutrient deficiency - Omega3, D3, B12, choline
 - Infections in nose and mouth - Borrelia, Lyme, P. gingivitis, HHV6a, Covid
 - Hormones: Thyroid, Estradiol, Progesterone, Testosterone, Pregnedalone, Cortisol.
 - Leaky gut and Microbiome
 - Trophic Factors - bind to receptors in the neurons and tell it to continue growing, making and sustaining connection of the nerves. Typically reduced in patients with Alzheimers.
- Include:

- Brain derived neurotrophic factor
- NGF (Nerve Growth Factor)

PET Scan can detect Alzheimer's 10 years before the symptoms.

Specscan is more sensitive and accurate (Dr Amen)

Support the energy.

Yearly tests: check for inflammation, CRP, albumin/globulin ratio, TNF, IL6, IL8, C4A, Omega3 Index, D3,

Group of Arizona Assisted Living Homes that include Bredesen Protocol in their Memory Care.

<https://aparadiseforparents.com/memory-care/>

“Dr. Bredesen’s goal is to change your biochemistry to provide optimal conditions for your brain to thrive. He’s identified over 36 factors (metabolic derangement, poor nutrient status, lack of trophic support, exposure to viruses, etc.) that can trigger “downsizing” in the brain, all of which can be addressed by using the Bredesen Protocol designed to prevent cognitive decline and reverse the effects of subjective cognitive impairment (SCI), mild cognitive impairment (MCI), and early Alzheimer’s disease.”

Hal Cranmer - Owner of the Assisted Living Homes

<https://youtu.be/8owAcO8llwY?si=55Q0wNep9qlfBg7L>

His bio: <https://aparadiseforparents.com/hal-cranmer/>

He talks about how he decided on the carnivore diet for his residents and how successful it is for reversing Alzheimer's.

Dr. Stephen Cabral - Sleep/Dementia study - Reversing Alzheimer's Disease is possible.

<https://youtu.be/jIGiLXYDsNs?si=qCJ-kIRUkhnEwm46>

- Framingham Study: a 1 % decrease in deep sleep/year correlated to a 27% increased risk of Dementia over 17 years. The loss of deep sleep with age was greater in those with the ApoE4 gene present.

<https://jamanetwork.com/journals/jamaneurology/article-abstract/2810957>

- Early detection device. A chip that remotely detects amyloid plaque and decrease in nerve conduction.

Introducing the first survivors of Alzheimer's - Dr Bredesen

https://youtu.be/WDzas4_EvUw?si=A0QIRmQyOKtioYVK

Interviews 4 of his first patients who recovered from Alzheimer's. Points noted:

- Addresses the cause with toxicity and genetic testing.
- Past mold toxicity was a factor.
- Lifestyle changes and supplements
- Severe setbacks after general anesthesia.
- "Mild cognitive impairment" (MCI) - is late stage Alzheimer's and must be addressed with the prevention or reversal program immediately.
- Symptoms: Trouble with knowing people, getting lost, personality changes, reading, paper work.
- One was on a 23&Me forum for Alzheimer's. Had a double ApoE4, so very at risk. She avoided toxins, took supplements, slept well, addressed stress, exercised and improved from 30th to 90th cognitive score for her age - before meeting Dr Bredesen. He diagnosed chronic Lyme disease, and noted the auto head injury, general anesthesia.
- Dr. Bredesen is still learning and modifying his protocol.
- Covid also affects the brain in multiple ways, including the blood vessels.
- The protocol optimizes everything. Other people see the results and are convinced.
- General anesthesia is a huge trigger - can prepare for detox before anesthesia.
- Relapses may occur with mold or other exposure, going off diet, high stress.
- Moroma (?) outside SF, CA is a nursing home practicing the protocol.

Dr Bredesen - Top Supplements

https://youtu.be/q_-SVv-AgZk?si=sPOoICJ77yFBK9VM

Helps if you know what is causing the Alzheimer's. Address the specifics with supplements.

Leaky gut? Chronic Lyme's? Decreased Blood Flow? Know what each supplement does.

In general:

Omega3's

Gingko

Curcumin

Propolis
 SPMActive - Resolvins - related to Omega3
 Magnesium Threonate and other magnesium
 Creatine
 Melatonin
 Vitamin D
 Ashwaganda

NMN, Fisetin, Red Korean Ginseng, Berberine and Alzheimer's Disease

Missing from Bredesen's work was any mention of these ingredients in my 'Brain Stuff' that have been shown to reverse the effects of aging. I gave it this name because it helps my husband and I think. We have taken it for years in a liposomal concoction I make in my kitchen. So, I did a google scholar search and found numerous studies that show reversal of the markers and symptoms of AD in genetically AD mice and in humans with AD. This provides me with evidence that it's not all in my head!

NMN and AD:

<https://link.springer.com/article/10.1007/s12031-021-01842-6>

Protective Effects of Nicotinamide Adenine Dinucleotide and Related Precursors in Alzheimer's Disease: A Systematic Review of Preclinical Studies

"Based on the primary outcomes, it was revealed that NAD⁺ improves learning and memory. The secondary endpoints also showed neuroprotective effects of NAD⁺ on different AD models. The proposed neuroprotective mechanisms included, but were not limited to, the attenuation of the oxidative stress, inflammation, and apoptosis, while enhancing the mitochondrial function."

<https://bmcneurol.biomedcentral.com/articles/10.1186/s12883-015-0272-x>

"Mitochondrial dysfunction is a hallmark of neurodegenerative diseases including Alzheimer's disease."

"Oxygen consumption deficits in brain mitochondria isolated from AD-Tg mice are reversed by nicotinamide mononucleotide (NMN)"

<https://www.sciencedirect.com/science/article/abs/pii/S030439401730246X>

Nicotinamide mononucleotide inhibits JNK activation to reverse Alzheimer disease

"Based on our findings, it was suggested that NMN substantially decreases multiple AD-associated pathological characteristics at least partially by the inhibition of JNK activation."

<https://www.sciencedirect.com/science/article/abs/pii/S0006291X23006538>

Nicotinamide mononucleotide improves the Alzheimer's disease by regulating intestinal microbiota

"The results show that the NMN significantly changed the intestinal microbial community composition in AD mice. The NMN also increased the relative abundance of short-chain fatty acids (SCFAs)-producing bacteria such as Lactobacillus and Bacteroides at the genus level by

protecting intestinal health and improving AD. The overall results suggest novel therapeutic strategies for treating AD and highlight the critical role of gut microbiota in AD pathology,”

Fisetin and Alzheimer’s Disease

I also found numerous studies and this review of the science:

<https://www.ingentaconnect.com/content/ben/ctmc/2016/00000016/00000017/art00006>

Neuroprotective Effects of Fisetin in Alzheimer’s and Parkinson’s Diseases: From Chemistry to Medicine. Authors: Fazel Nabavi, et al.

“Fisetin is one of the most common and bioactive flavonoids which possesses potential neuroprotective effects. Fisetin also enhances learning and memory, decreases neuronal cell death, and suppresses oxidative stress. The present paper aims to critically evaluate the available literature regarding the beneficial effects of fisetin on neurodegenerative diseases, especially AD and PD.”

Red Korean Ginseng and Alzheimer’s Disease

Ginseng in general showed no effect, but a search of Red Korean Ginseng gave numerous studies showing the effectiveness against animal models of AD, but also one on human neuronal cells *in vitro* and one in AD patients in Korea. Both showed reversal of AD markers:

<https://karger.com/pha/article-abstract/105/9-10/586/268109/Korean-Red-Ginseng-Inhibits-Amyloid-Induced?redirectedFrom=fulltext>

Korean Red Ginseng Inhibits Amyloid- β -Induced Apoptosis and Nucling Expression in Human Neuronal Cells

“RG confers protection against neuronal apoptosis by reducing ROS levels and suppressing mitochondrial dysfunction and NF- κ B activation, which results in suppression of NF- κ B-mediated activation of Nucling expression in A β -treated cells.”

<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-1331.2008.02157.x>

An open-label trial of Korean red ginseng as an adjuvant treatment for cognitive impairment in patients with Alzheimer’s disease

This was a 12 week trial of 61 patients, divided between high dose, low dose RKG and controls.: “The patients in the high-dose KRG group showed significant improvement on the ADAS and CDR after 12 weeks of KRG therapy when compared with those in the control group”

Berberine and AD

<https://onlinelibrary.wiley.com/doi/abs/10.1111/jfbc.13936>

Neuroprotective potential of berberine in modulating Alzheimer’s disease via multiple signaling pathways

“Recently, numerous studies on animal models have shown the neuroprotective role of berberine. AD is a complex disease having multiple pathological factors. Berberine restrains the deposition of amyloid plaques and neurofibrillary tangles. Substantial studies have demonstrated that berberine may also exhibit the protective effect against the risk factors associated with AD. This

review illustrates the role of berberine in neuroinflammation, oxidative stress and its activity against acetylcholinesterase enzyme. It also focuses on the bioavailability and safety of berberine in AD.”

Sue: Kirtan Kriya is proven to enhance brain and mental health, increase longevity, and keep your mind sharp.

<https://kripalu.org/resources/incredible-power-kirtan-kriya-conversation-brain-health-and-longevity-dr-chris-walling>

This video explains how to do the meditation with hand movements etc

https://youtu.be/41rXTnjakV4?si=A7usrG-Oi_GjkF38

Do this meditation:

https://youtu.be/jfKEAiwrgeY?si=7kyH0o5jwYIe_Nzy

Jeanne: MaramaExperience.com

The Assisted Living in CA

MaramaatHome.com - doing the protocol at home with a coach. Talks about an ongoing clinical trial.

Clear Mind Center at Avita Rolling Hills, KS.

Clinical Trials going on now.

Other doctors working on Brain Health and Reversal of Alzheimer’s:

Dr Amen - BrainHealthAssessment.com. Free Protocol

Julia Lundstrom SimpleSmartScience.com

Dr. Mary Newport reversed husband’s Alzheimer’s with MCT oil 5 T/day

Sleep - Mary listens to Calm - paid subscription. Sleep stories. She says that the ApoE4 gene is also known as a short sleep gene.

Sue listens to Yoga Nidra meditations.

Contrast used in imaging: Gadolinium is a toxic heavy metal known to cause kidney damage and other toxicity. Taking an IV bolus of NAC before and orally bid for 2 days after administration of gadolinium can reduce the significant kidney damage 33% to 9% of patients undergoing an angiogram with contrast. Doses were 600 mg and 1200 mg for the high dose. New England Journal of Medicine article:

N-Acetylcysteine and Contrast-Induced Nephropathy in Primary Angioplasty by Giancarlo Marenzi, M.D., N Engl J Med 2006;354:2773-82.

“The rate for the composite end point of death, acute renal failure requiring temporary renal-replacement therapy, or the need for mechanical ventilation was 18%, 7%, and 5% in the control group, low dose NAC and high dose NAC groups, respectively (P=0.002).”

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Her Book: Alzheimer's Disease: What If There Was a Cure (3rd Edition): The Story of Ketones:

https://www.amazon.com/Alzheimers-Disease-There-Story-Ketones/dp/1684429242/ref=sr_1_1?crid=U7A32LOC4DTN&keywords=Mary+T.+Newport&qid=1704636196&srefix=mary+t.+newport%2Caps%2C148&sr=8-1