

CURE ALZHEIMER'S FUND
ANSWERS TO QUESTIONS RECEIVED DURING SYMPOSIUM
OCTOBER 18, 2017

(The following questions were received during the Cure Alzheimer's Fund Research Symposium held on October 18, 2017 in Boston, Massachusetts.)

Do you recommend keeping an individual with Alzheimer's disease on medications such as Namenda and Aricept until the end? If not, at what point do you recommend they be taken off of them?

For the safety of each patient, we cannot make recommendations about specific treatment protocols. Each individual's situation, reaction to treatments, and context of care will be unique to them and current therapeutic options should be evaluated on a case-by-case basis with the individual's health care providers.

Do you recommend taking a supplement everyday, for example, of nicotinamide riboside/niagen and Algal Dha Epa?

While we cannot make recommendations about specific supplements or brands, we can say that supplements from plant sources are less likely to be contaminated by heavy metals than are supplements from animals, especially those higher on the food chain.

Do you recommend taking a probiotic every day? What is your preference for type/brand/strength of probiotics?

To date, no human studies have been done to investigate whether probiotic intake decreases the risk of Alzheimer's disease or changes the age of onset. However, the importance of gut microbiome balance in maintaining health, including brain health, is increasingly clear. Probiotics are best used by the body when digested from their natural food sources, such as yogurt, kefir, kimchi, sauerkraut, and pickles; different strains are present in different foods'. Probiotic supplements are considered safe for most healthy people. They may cause intestinal distress for some people if taken in too high a quantity. Because the identity of potentially helpful microbial species has not been determined for Alzheimer's disease, we suggest that people choosing to take a probiotic supplement should select one that specifies multiple strains.

Do the supplements Cats Claw and Ashwagandha cause sun sensitivity?

We do not know.

Has anyone studied the actual current living gut microbiome of those with the familial gene mutations?

We do not know of any current studies of the microbiomes of human carriers of the familial Alzheimer's risk genes. The importance of the microbiome is still an emerging science, so a lot of key research remains to be done.

When does gut dysbiosis begin and how effective is dietary modulation over time?

We are still outlining what can be defined as dysbiosis because we are still learning what factors are part of a healthy or optimal microbiome and what should be eaten to achieve it. We do know that severe dysbiosis can be caused acutely by antibiotic overuse, poor diet, or alcohol abuse. It appears that the gut microbiome can change relatively quickly; one recent study showed a change in gut microbiomes in healthy volunteers after only a four-day dietary intervention.

Do you see a link with post-traumatic stress and Alzheimer's?

There is increasing evidence that post-traumatic stress is a risk factor for dementia, and specifically Alzheimer's dementia, later in life. Scientists are working on understanding the molecular mechanisms driving the connection in hopes that any treatment would help sufferers not only reduce their PTSD symptoms but also decrease their AD risk. The stress associated with PTSD triggers neuroinflammation which is an important component of Alzheimer's pathology.

Is the death of a spouse, a major life change, etc. linked to Alzheimer's?

Psychosocial stressors, both acute, like the death of a spouse, and chronic, like poverty, are known to trigger neuroinflammation and to over activate microglia, both of which are key components of the Alzheimer's cascade.

Have you found a connection with Fibromyalgia?

Cure Alzheimer's Fund supports a number of labs studying neuroinflammation, but no projects are currently looking at fibromyalgia. Neuroinflammation is an integral part of both fibromyalgia and Alzheimer's disease. However, whether either disease contributes to the other or whether some other factor contributes to both is as yet unknown. One study in

Taiwan found that individuals over age 50 with a new fibromyalgia diagnosis were at higher risk of being diagnosed with dementia over the next ten years than were those without fibromyalgia, but the study was not designed to determine whether fibromyalgia was a major contributor. One study conducted in patients with fibromyalgia reported that the cognitive difficulties they experienced (“fibro fog”) were qualitatively different than those experienced in people with AD.

Has anyone at the foundation evaluated the Alzheimer’s protocol developed by Dr. Dale Bredesen for preventing and reversing the disease?

The protocol developed by Dr. Dale Bredesen has not been evaluated in randomized clinical trials. He has published only case studies in journals that do not require review by other scientists. Aspects of the protocol include “healthy living” recommendations that other scientists have also investigated and found positive impact from: sufficient sleep, exercise, a healthy diet, and stress reduction. However, the efficacy of supplements and other proprietary aspects sold as part of the Bredesen protocol have not been evaluated through the rigorous scientific process, so we cannot recommend them.

What role do you believe the infection model plays in the PSEN2 familial Alzheimer’s gene mutation?

PSEN2 mutations lead to increased production of the longer, more detrimental, forms of beta amyloid that are more likely to trigger plaque generation and to form amyloid deposits. Beta amyloid plaques in the brain appear to be a normal response to microbes and help neutralize infections in the short term, but when more plaques form than the brain is able to clear out, their overall load can lead to neurodegeneration in the long term.

Is it necessary to have 7 or 8 hours of continuous sleep, or can it be interrupted into shorter sessions, totaling 7 hours?

Emerging evidence suggests a complex relationship between sleep and Alzheimer’s pathology with evidence that both amyloid and tau levels are negatively affected by insufficient sleep. Cure Alzheimer’s Fund will continue to support researchers exploring these issues.

The optimal amount of sleep will vary from one person to the next. Sleep is broken up into different stages as defined by different electrical brain wave patterns. We are still learning about what the brain is doing in each stage, but it’s likely to be important that people experience each stage when they sleep. For most people, a full sleep cycle takes between 70 and 120 minutes, and multiple cycles are completed during a night’s sleep. We do not yet know how breaking up the cycles compares with achieving them all without interruption.