

The McDougall Newsletter



June 2017

Alzheimers is Caused by Chronic Aluminum Poisoning

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Alzheimer's was once less common in developing countries, such as China, but their recent changes toward the Western diet caused the incidence of AD to rise proportionally. By 2040 it is predicted that 81.1 million people will develop AD worldwide. The burden on patients, families, and healthcare businesses will become even more enormous. Consider that nursing homecare alone in the US is now, on average, \$47,000 per patient per year. Page 2

Featured Recipes

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Aluminum toxicity has been considered to be the cause of AD for more than a century. Besides being the third most abundant element on Earth (after oxygen and silicon), aluminum is the most brain-toxic metal we commonly come in contact with. The original source of this metal is earth (dirt, rocks, and clay). Naturally aluminum is not found in the animal kingdom and is only present in plants as compounds that are not readily absorbed by the intestines of animals.

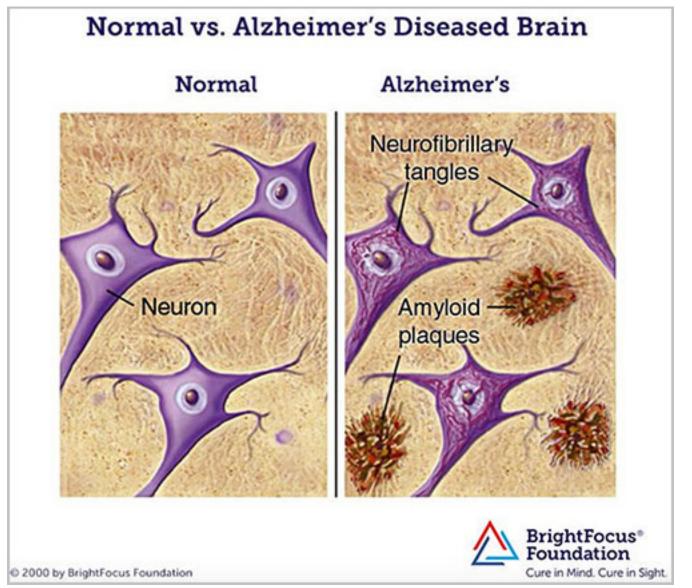
Human exposure to aluminum was rather limited up until the late 1880s. However, since the Industrial Revolution mankind has discovered how to refine aluminum extracted from the Earth's crust into aluminum compounds, such as aluminum sulfate and aluminum citrate, which are absorbed and concentrated in human tissues. For the past century we have lived in the "Aluminum Age." Nowadays most people are exposed to unsafe amounts through food, water, and air all day long.

You may be asking: "Why is aluminum poisoning not a major public health topic?" As with most of our chronic disease epidemics, getting the truth out to the public is fought by "Big Businesses." You know many other examples of money trumping truth; consider the cattle and dairy industries' efforts. In this case, it's the aluminum industries acting as the public's enemy. The <u>Aluminum Association's</u> position is that "Aluminum is not linked to Alzheimer's disease..." They further emphasize, "...there is

no evidence that normal day-to-day use of aluminum products, whether in food, cookware, drinking water, antiperspirants, medicines or cosmetics, causes any adverse health effects." However, a review of the published scientific research should cause you to come to the <u>opposite conclusion</u>. Search the US National Library of Medicine at <u>www.pubmed.gov</u> for "aluminum and Alzheimer's Disease" to find the 1041 articles (as of June 2017) published on this subject since 1965.

The Undeniable Evidence

In 1901, German neuropathologist Alois Alzheimer identified his first case of AD in a 5



particular sign whose presence indicates that a particular disease is present beyond any doubt. Timeline of Evidence

1897: Aluminum found to be toxic to the brain and nervous system.

1901: First case of AD reported by German neuropathologist Alois Alzheimer.

1911: Dr. Alzheimer described in the *Lancet* the characteristic neurofibrillary tangles seen under his microscope of in his patient with AD.

1911: William Gies expressed concerns about the use of aluminum in baking powders, based on seven years of research on the effects of aluminum salts in animals and humans.

1926: Only 33 cases of AD had been reported.

1965: A <u>mechanism for aluminum</u> causing Alzheimer's Disease was shown by injecting animals (rabbits) with aluminum and producing neurofibrillary lesions (classic pathologic microscopic finding).

1973: Brains of patients with AD were reported to have 2 to 3 times more aluminum than people of comparable age without dementia.

1980: Scanning electron microscopy and x-ray spectrometry found pathognomonic lesions (neurofibrillary tangles) contained a central core of aluminum.

1983: A report was published that patients on chronic hemodialysis treatment for renal failure, receiving high concentrations of aluminum, developed "dialysis encephalopathy" with concentrations of aluminum in their body as much as 12 times normal.

1986: A higher aluminum content of drinking water was correlated with an increased the incidence of death from dementia worldwide. Eighteen studies have found this association. Aluminum is added by the water utility to increase the clarity of the water.

1991: Treatment with Desferrioxamine (DFO), a chelating agent with a high affinity for aluminum, was found to reduce the amount of aluminum in the brain and body tissues and to <u>slow the</u> <u>progression</u> of AD in patients.

2015: More than 24 million cases of AD reported worldwide.

2017: Aluminum concentrations in the brains were reported to be directly correlated with the severity of AD in patients.

Two published scientific reports are particularly incriminating of aluminum being the causative agent for AD. Research published in <u>Science in 1980</u> used scanning electron microscopy and x-ray spectrometry to more carefully examine these <u>pathognomonic</u> <u>lesions</u> (senile plaques and neurofibrillary tangles). Under this powerful magnification aluminum was found in the nuclear region of cells from the neurofibrillary tangles in diseased brains in patients with Alzheimer's Dementia, but not in cells outside of the neurofibrillary tangles and in patients of similar age without AD. <u>Additional research</u> published since has found aluminum poisoning directly accounts for most of the scientific markers associated with AD.

The second convincing report was published in March of 2017 and established a direct human connection between the amount of aluminum accumulation in the brain and the severity of AD. Those who develop Alzheimer's disease in their late sixties and older accumulate more aluminum in their brain tissue than individuals of the same age without the disease. Some of the highest levels of aluminum ever measured in human brain tissues are found in individuals who have died with a diagnosis of "familial AD" (a rare rapidly progressive genetic variant with onset as early as 30 years).

Primary Prevention: Avoid Aluminum Exposure

The primary approach to avoiding AD is to avoid exposure to aluminum through the gastrointestinal tract (eating and drinking), by breathing aluminum, and by skin exposure. Absorption of aluminum from the intestinal tract is small (less than 1%), however the total amount consumed of this metal in modern societies is large and becomes significant. Plant foods, including teas, are known to contain aluminum. Fortunately, as nature designed, most of it is bound to oxalate, silicates, and other elements that prevent absorption into the body. There is <u>no association</u> between drinking tea with large amounts of non-absorbable aluminum compounds in its leaves and AD.

The skin and lungs also provide common portals of entry for this bio-toxic metal. Many occupations have exposed workers to large amounts of aerosol aluminum in their working environment. Antiperspirants contain aluminum as an ingredient to inhibit the sweat glands. Not only is the aluminum absorbed when applied to the skin, but it is also inhaled as people spray their armpits daily. The <u>olfactory lobes</u> (parts of brain connecting the nose with the brain) provide a direct connection between the outside environment and the brain, and more specifically, into those areas of the brain known to be most severely affected by AD. Breathing aluminum may account for far more entry of aluminum into the body tissues than eating and drinking it.

Common Sources of Aluminum Exposure
Drinking water
Coffee beverages using aluminum mokas
Aluminum containers, foils, and cans
Aluminum cookware and utensils
Food Additives
Infant formulas
Medications
Personal hygiene products
Vaccinations

Treating and Preventing AD

Avoiding aluminum exposure is your surest defense from developing AD. There are no doctor-prescribed medications that will slow or stop the progression of this form of dementia. However, aluminum removal from the body via the kidneys can be enhanced with clinical benefits also reported.

Desferrioxamine (DFO), a chelating agent with a high affinity for aluminum, was first reported in 1991 to remove this toxic metal from the body tissues and to <u>slow the</u> <u>progression</u> of AD in patients. The treatment was twice a day injections of 125 mg of DFO for five days a week. Over two years of observation, the rate of decline in the clinical state of 48 patients was twice as rapid in the "no-treatment" group compared

with the "DFO-treated" group. Research continues today using a variety of agents that remove metals from the body as a way to slow and stop the progression of AD.

A simple, inexpensive approach of drinking <u>silicon-rich waters</u> is now being promoted as a way of enhancing the elimination of aluminum from the body, along with the hopes of helping people prevent and treat AD. Researchers asked patients with Alzheimer's to drink a liter (about 34 ounces) of a silicon-rich mineral water each day for 12 weeks. This "special water" increased the removal of aluminum via the kidneys into the urine and clinical improvement was seen in 3 of the 15 patients with AD. These silicon-rich beverages are easily found in stores and via <u>the Internet</u>.

A Safe, Practical Solution for AD

Aluminum is not a nutrient, thus there is no reason for it to be in your body. As always, money drives the message, and there is too much at stake to deliver simple, cost-free, side effect-free information about aluminum poisoning. Only avoiding aluminum is not all you should do. The <u>Western diet</u> in general has been associated with the risk of developing many forms of dementia, including vascular strokes and AD. Rather than spending your "golden years" with silver colored aluminum littered throughout your brain, now is a good time to make the change to <u>The McDougall</u> <u>Program</u>.

My recommendation is to (1) throw out your aluminum pots and pans (use modern <u>non-stick ceramic titanium-based cookware</u>), (2) eat a starch-based diet prepared without aluminum additives, and (3) avoid aluminum-containing hygiene products. Adding silicon-rich drinking water appears to also be a safe and effective over-thecounter technique to remove aluminum that has already accumulated in your body.

For more information on aluminum and AD see my <u>June 2004 newsletter</u>, "Alzheimer's Disease Can Be Safely Prevented and Treated Now."

Featured Recipes

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SUMMER RED-SKINNED POTATO SALAD

4 cups red-skinned potatoes, scrubbed and cubed

1 cup celery, diced

2 tablespoons dill pickles, minced

2 tablespoons fresh dill, minced (or 2 teaspoons dried dill)

1 1/2 teaspoons fresh tarragon, minced (or

1/2 teaspoon dried tarragon)

Creamy Dressing

1/2 cup raw cashews
6 tablespoons water
2 tablespoons, plus 3/4 teaspoon rice wine vinegar
1 1/2 tablespoons Dijon mustard
1 1/2 teaspoons fresh lemon juice
sea salt, to taste
black pepper, to taste

Instructions

Place potatoes in a large pot with cold salted water. Bring to a boil, reduce heat, and cover. Simmer until tender, then drain, and allow potatoes to cool for about 20 minutes or more.

Once the potatoes have cooled, place them in a large bowl. Add celery, pickles, dill, and tarragon, and toss together.



<u>To make Creamy Dressing</u>, add cashews, water, lemon juice, rice wine vinegar, mustard, and salt and pepper to a high powered blender. Process on low, and gradually work up to high speed until mixture is completely smooth.

Pour dressing over the salad ingredients, and combine well. Serve immediately, or refrigerate and serve chilled.

PITA BREAD PIZZAS

4 thick whole wheat pita bread squares (6inches each), or mini rounds Pasta sauce, pizza sauce, or tomato sauce Red bell peppers, diced (raw, sautéed, or steamed) Vidalia onions, diced (raw, sautéed, or steamed) Zucchini, diced (raw, sautéed, or steamed) Fresh pineapple Ribbons of fresh basil Italian Seasoning (optional) Salt and black pepper, to taste



To serve: nutritional yeast or red pepper flakes (optional)

Instructions

Preheat oven (or toaster oven) to 425 or 450 degrees.

Slice pita breads in half, lengthwise or diagonally. Place pita halves onto a baking sheet. Slather with a thick layer of pasta sauce.

Top the sauce generously with all the toppings of your choice. Sprinkle the pizzas with a touch of salt and pepper and/or Italian Seasoning. Bake for approximately 10 to 12 minutes, or until the edges begin to turn crispy and golden brown, and the center is hot and bubbling.

Remove from oven, and serve hot. Top with nutritional yeast or red pepper flakes, if desired.

RED CABBAGE AND MANGO SLAW

4 cups red cabbage, shredded 4 carrots, peeled and chopped or shredded 2 mangos, diced 3/4 cup fresh cilantro, chopped (or to taste) juice of 1 large lime, freshly squeezed splash or 2 of balsamic vinegar (to taste) sprinkle of kosher salt (optional) Baked marinated tempeh (optional)



Instructions

In a large bowl, mix together cabbage, carrots, mangos, and cilantro. Add lime juice, balsamic vinegar, and salt (if using), and toss completely. Add baked tempeh, if using. Taste for seasonings and adjust if needed.

Allow slaw to chill completely, and mix again very well just before serving.

DEEP CHOCOLATE BROWNIE BITES

Makes about 20 (1-inch) brownies

1/2 cup cocoa powder2 teaspoons baking powder3 tablespoons of unsweetened nondairy milk

1 teaspoon vanilla

- 15 Medjool dates, pitted
- 1/4 cup vegan chocolate chips (optional)

Garnish: Top with fresh strawberries or bananas (optional)



Instructions

Preheat oven to 350 degrees.

Into the bowl of a large food processor, add all ingredients in the order listed above. Pulse or process until the mixture is well combined.

Remove bowl and blade from the base. Divide batter evenly, filling 20 sections of either a silicone brownie-bite pan or a nonstick miniature muffin pan. Bake for 12 minutes. Remove from oven and place on cooling rack. Top with fresh fruit, if desired, and serve.