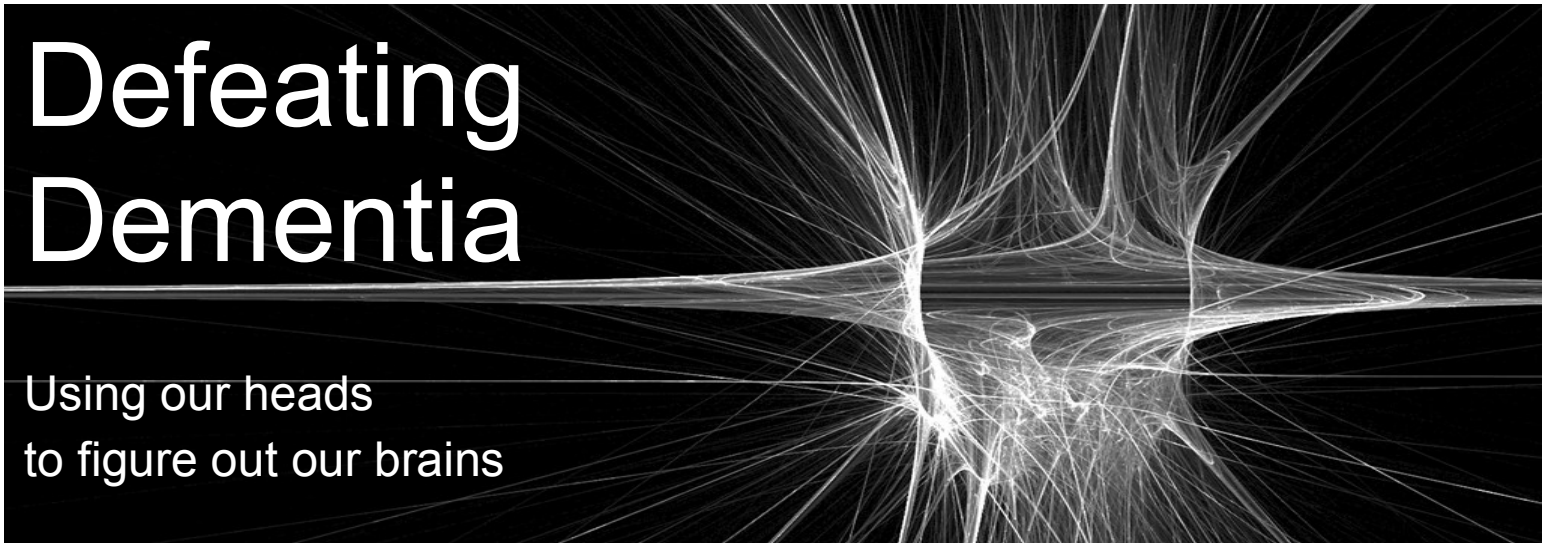
EVOLUTION OF MEDICINE

EOMEDIGRAM

A Newsletter from the office of Daniel G. Koster, MD

Winter 2017

Defeating Dementia



Using our heads to figure out our brains

Parts adapted from *Evolutionize Your Health*™ by Daniel G. Koster, MD.

We humans have been thinkers for many thousands of years. More than any other feature, our brains define us as a species. *Homo sapiens* means wise man. (Can you guess who named us?)

Our minds define us as individuals. People can debate which of our organs is most vital. The heart gets plenty of votes. The lungs have their enthusiasts. You can even find kidney fans among nephrologists. But I say they're all wrong. I'm firmly in the brain camp. It is the most complex, fascinating and mysterious organ. We experience all life as we know it through the mind. The other organs ultimately serve the brain.

Dementia is loss of brain function. Terrible in its severe form, victims lose life as they know it yet go on living. It is awful for patients and even worse for their loved ones. Family and friends lose them twice, first their minds and then their bodies.

No wonder so much effort and funding now go to dementia research. Our society and media focus on it like never before. My patients ask me about preserving their memory and staying sane more than any other concern during their annual exams.

Dementia wasn't always such a big deal. As recently as the 1940s, medical books devoted many more pages to whooping cough than to insanity or senility (the terms at the time.) That made sense when infections and other diseases killed so many in the prime of life. Now that we live longer, dementia looms as the main health threat.

There's another, hopeful reason for the recent rise in dementia research: For the first time ever, it's likely to pay off.

Back in the days of Hippocrates and Aristotle, we didn't even know what the brain did. Even just a century ago, we knew very little about its neural anatomy—how it was wired—and even less about the electrochemistry that fired those circuits. The technological tools needed for real progress just recently evolved, and we need them because we have far to go in unlocking the brain's mysteries and curing its maladies.

Cutting edge science and equipment play major roles, but the real star and ultimate hope for curing dementia is brainpower. To paraphrase the old proverb, "Mind, heal thyself!" Solving dementia requires the mind of

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"Dr. Bredesen's results, if valid, are shocking—medicine's first victory ever against Alzheimer's."

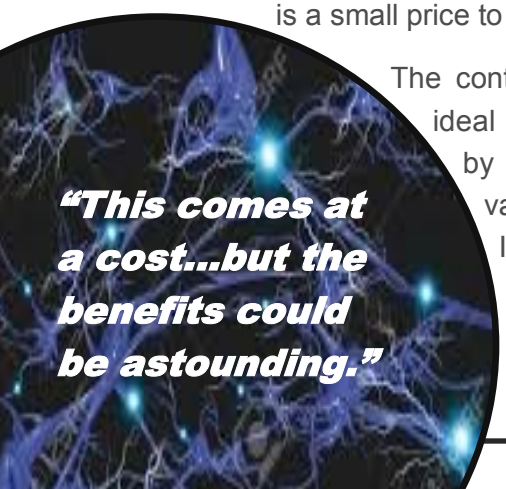
homo sapiens—specifically the brilliance, ingenuity and tenacity of scientists.

Sane Science

Medical scientists earned our esteem over the last century, evolving various strategies to conquer illness. One method, the controlled experiment, now forms the foundation of modern medical research. You may not know this ingenious design, but you've certainly benefited from it.

In this strategy, large numbers of subjects are divided into two groups. As much as possible, the two groups are identical. Then a single factor, or variable, is introduced into one group but not the other. That's the experiment. Comparing results of the two groups, any differences can be attributed to the variable since it was the only difference between them. The controlled experiment best reveals the role of any isolated variable in a process.

Nothing beats the controlled experiment for certainty. Let's say you want to challenge the role of vitamin C deficiency as the cause of scurvy. Gather lots of people and divide them randomly into two groups. Give the control group their normal diet with vitamin C, and give the experimental group the same diet except with no vitamin C. Soon you will prove vitamin C's relation to scurvy because 100% of those without it will have scurvy and 100% of those with vitamin C will not. (You also will receive many letters from attorneys, but hey, prison is a small price to pay for science.)



The controlled experiment is ideal for diseases caused by just one, isolatable variable, like scurvy. In those cases, when this method reveals a definite result, you can bet on it.

But here's the trouble. Most diseases—heart attack, cancers, dementia—do not have just one main cause. Isolating one factor out of thirty may yield one thirtieth of a difference between the two groups, but we may not even be able to detect the difference, let alone know how to fix it. If your dementia is severe, fixing one thirtieth of it won't help you know your children again.

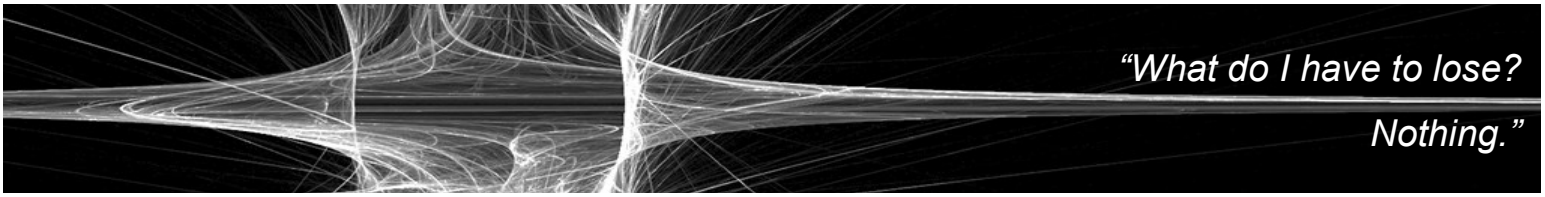
But the same strategy that beat scurvy might beat dementia. You see, scurvy wasn't beaten with controlled experiments. It was beaten by observation and trying something to see what worked.

In the early 1800s, the British navy observed that crews returning from tropical voyages never got scurvy and those returning from Greenland did. So they tried giving citrus juice to all their sailors, and boom! No more scurvy. Brits have been called limeys ever since. A hundred years later someone discovered vitamin C.

Scientists today are using the modern equivalent of the scurvy approach on dementia and other brain diseases, focusing first on finding what works and leaving for later discovering the details. This comes at a cost—less certainty—but the benefits could be astounding.

Dr. Dale Bredesen has been doing conventional, state of the art neurological research for thirty years, but his 2014 study turned the controlled experiment method upside down. Large numbers? Bredesen used just ten subjects. Experimental and control groups? Bredesen used no controls. Isolate and alter just one variable? Bredesen shot-gunned a couple dozen variables and let each subject pick which ones to try.

The *New England Journal of Medicine* might scoff at Dr. Bredesen's methods, but we all should take note of his results. Nine of ten moderately demented subjects improved significantly, and the tenth—the most seriously ill of them—slowed his decline. These improvements were not "significant" in just a statistical sense; several subjects were able to return to work and resume former



responsibilities and relationships. They feel well again. Cured.

Dr. Bredesen's results, if valid, are shocking—medicine's first victory ever against Alzheimer's. But to achieve those results, he sacrificed the certainty and validity conferred only by more rigorous methods. Certainty and validity are not easily earned in science. Many neurologists and other doctors doubt his results. Many more have never heard of them because they spend their precious education time reading about more conventional research.

Is Dr. Bredesen's work bad science? No, for two reasons.

First, what is science? My definition: The best way to find what works best. Good science, then, isn't about following conventional rules or strategy. It's helping us learn what works. Dr. Bredesen's work may help in two ways, by finding what works for dementia and by showing a new approach for further research.

Second, his subjects report miraculous improvement of a terrible, devastating and incurable disease. By any measure, that sort of improvement—if real—is good.

I am inclined to believe his results. I have a healthy skepticism of medical claims fueled by years of reading false and misleading reports. Only by deliberate fraud or gross incompetence could Dr. Bredesen's study be false. I find it hard to suspect such shameful behavior by a scientist with his reputation.

What You Can Do

What I or others conclude about this research should not matter much to you. Its validity can be debated, like landlubbers opining on the Royal Navy's new scurvy policy. But sailors back then faced a more pressing, personal question, "What do I have to lose mixing lemon juice with my grog?" So today anyone seriously concerned about dementia must ask, "What do I have to lose trying Dr. Bredesen's method?" The answer to both questions is, nothing. It's the only plan I know with a decent chance to help, and it can't hurt. For you, that may mean it's the only sane option.

We have no room here to describe the details of the regimen, but I can summarize the main components:

- low glycemic, low inflammatory, low grain diet
- ketogenesis via fasting 3 hours before bedtime and 12 hours between supper and breakfast
- stress reduction via yoga, meditation, music, etc.
- optimizing sleep for a goal of 8 hours per night
- exercise 30-60 minutes per day 4-6 days per week
- nutritional supplements and exclusion of heavy metal toxins and pro-inflammatory substances.

I have met with several patients to discuss this in detail. We have begun ordering supplements through my office and providing specific instructions to help people get started. We will keep track of our results, and in time I will report back on this. Also, I will be speaking on this topic at our March 16th *Dine & Discuss* (see details on the next page). In the meantime, let me know if you want to set up a visit to learn more about this.

Finally, here is a link to a Dr. Bredesen video that may interest you: https://www.youtube.com/watch?v=QqQ_X3mD16U.

Defeating Dementia

If today's newsletter topic was of interest to you, please join us for a more in-depth look at dementia and Dr. Bredesen's research at our next Dine & Discuss.

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Thursday, March 16 at 7:00pm
at The Creamery, 2200 Dickenson Rd, DP
Bring a friend!

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Do you have a suggestion for the next newsletter? Send to: Chris@EoMedLLC.com

Take Note!

→ ***It's not too late for a flu shot!*** *No appointment needed, just phone before you arrive.*

→ *Dr. Dan will be out of town from **Sat, 2/25, through Wed, 3/1.** Dana and Chris will still be available. As always, Dr. Dan can be reached via cell phone: 920.366.9150.*

→ *Mark your calendar: Our next **Dine and Discuss** is set for **Thursday, 3/16/17, 7pm** at The Creamery in De Pere. The topic of discussion will include the article in this newsletter, and anything else you'd like to bring up. Friends and family are more than welcome!*

Contact Us

Contact us anytime for more information about our services.

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