CONQUERING ALZHEIMER'S WITH COCONUT KETONES

Dr. Bruce Fife

Patti Smith sensed something was wrong. Her mind seemed to go into a fog at times. She would fumble for words, forget appointments, and often stopped abruptly in mid-sentence, forgetting what she was about to say. She was a productive worker and was one of the top sales consultants for BB&T bank in Washington, D.C. But brain fog made it increasingly difficult for her to sell bank services to corporate clients and her productivity began to wane.

"I thought it was stress," Smith says. So after struggling for a couple of years with this problem she decided to take the summer off, hoping the break would help clear the fog. Yet, when she returned to work her mental clarity wasn't any better, if anything it was worse. In two short years she went from being one of the bank's top producers to the bottom of the pack.

She consulted with a neurologist and was diagnosed with the beginning stages of Alzheimer's disease. "I was stunned", says Smith. She was only 51. She had no family history of the disease or any reason to think she would ever have to deal with this type of illness. She was physically active, jogged regularly, and otherwise appeared to be in good health. Smith was forced to retire before the end of the year and now collects disability.

Alzheimer's is second only to cancer as American's greatest health fear. This fear is well deserved. Alzheimer's is a frightening disease characterized by failing memory, erratic behaviors and loss of bodily functions. It slowly takes away a person's identity and their ability to think, eat, talk, and walk.

Virgin Coconut Oil (VCO) Produced in APCC Member Countries

Most cases of Alzheimer's surface after the age of 60. But in a small number of people, like Smith, it occurs in their 40s or 50s. This is called early-onset Alzheimer's. The idea of getting Alzheimer's is frightening enough, but getting hit with it in the prime of life is totally devastating. Of the 5.3 million people in the US who have been diagnosed with Alzheimer's, over half a million have early-onset Alzheimer's. Another 590,000 people age 55 to 64 have mild cognitive impairment, which is a precursor to Alzheimer's.

No matter when it's diagnosed, Alzheimer's destroys the brain and leads to the same symptoms: memory loss, poor judgment, confusion, disorientation, agitation, and ultimately the loss of the ability to speak or take care of oneself.

There is no cure. Doctors don't have a clue how to stop or even prevent this destructive disease. They aren't even sure what causes it. Fortunately, however, there is a way to both prevent and reverse Alzheimer's. It doesn't require drugs, surgeries, radiation, or high tech medical devices. The solution involves coconut ketones—a high energy brain food.

The fundamental problem associated with Alzheimer's disease is the inability of the brain to effectively utilize glucose, or blood sugar, to produce energy. This defect in energy conversion starves the brain cells and weakens their ability to withstand stress. The

brain rapidly ages and degenerates into dementia.

The solution to the problem is to restore the brain's ability to produce the energy it needs to resist stresses that harm the brain, enable it to repair damage, and stimulate growth of new cells.

Glucose is the primary source of energy used by all the cells in the body. We get glucose from the carbohydrate in our foods. When food is not eaten for a time, such as between meals, during sleep, or when fasting, blood glucose levels fall. To maintain the energy needed by the cells, fatty acids (fat molecules) are released from our fat cells. Like glucose, fatty acids can be burned to produce energy. This process works well for the body, but not the brain. The brain cannot use these fatty acids to satisfy its energy needs.

When blood glucose levels fall, the brain needs another source of energy to function and to survive. This alternative fuel source comes in the form of ketone bodies or ketones. Ketones are a special type of high-energy fuel produced in the liver specifically to nourish the brain. Ketones are produced from fat stored in the liver. Under normal conditions, only a small amount of ketones circulate in our blood, but as blood glucose levels go down, ketone production steps up. This way the brain has a continual supply of either glucose or ketones to rely on.

In Alzheimer's disease, brain cells have difficulty metabolizing glucose, the brain's principal source of energy. Ketones bypass this defect in glucose energy metabolism. If enough ketones are available on a continual basis, they could satisfy almost all of brain's energy needs. However, ketones are only produced when carbohydrate consumption is very low; this normally happens when little no food is being consumed, such as when fasting.

Obviously, fasting is not a practical long-term solution. However, if carbohydrate consumption is very low, a person can get all the calories and nutrients he or she needs from protein and fat. This type of diet is known as a ketogenic diet. The ketogenic diet has been used therapeutically for over 90 years to treat another brain disorder—epilepsy.

Years ago it was discovered that fasting, consuming nothing but water, for several weeks at a time could significantly alleviate, and in many cases, completely cure epilepsy. The reason for this is that during a fast, ketones supply the brain with a more efficient source of energy than glucose, stimulating the healing and growth of brain cells. Researchers reasoned that if they could prolong the effects of fasting for more than a few weeks, say for a year or so, it would allow more time for the healing process and thus increase the cure rate. Of course, you could not place someone on a fast for a year, so they devised a diet that mimicked the metabolic effects of fasting while providing all the nutrients needed to maintain good health. The result was the ketogenic diet. The ketogenic diet proved to be enormously successful even against very severe drug-resistance cases of epilepsy.

Since the ketogenic diet has proven to be useful in correcting the brain defects associated with epilepsy, researchers began to wonder if it could also treat other brain disorders, such as Alzheimer's.

Initial studies with neurodegenerative disorders such as Parkinson's disease, ALS, Huntington's disease, traumatic brain injury, and stroke have shown that the ketogenic diet can provide symptomatic relief to a broad range of brain disorders.[1-4] Animal models of Alzheimer's have also responded well to ketone therapy. In animal studies ketones are shown to reduce the amount of Alzheimer's-like plaque that forms in the brain and improve performance on visual-spatial memory tasks, increase the ability of learning tasks, and improve performance in short-term memory.

With the classic ketogenic diet carbohydrate intake must be kept very low (around 2% of calories) in order to stimulate the liver to convert fat into ketones. Carbohydrate ordinarily accounts for about 60% of our daily calories. When this is dropped to only 2%, the void must be filled by other energy producing nutrients—either fat or protein. In the ketogenic diet, fat is used to replace the carbohydrate in order to supply the needed building blocks for ketone production. Although the ketogenic diet shows great promise in treating Alzheimer's and other neurodegenerative diseases, producing palatable meals consisting of 90% fat is a challenge.

Fortunately there are certain fats, namely Medium Chain Triglycerides (MCTs), that are converted into ketones in the body regardless of blood glucose levels or the amount of carbohydrate in the diet. When MCTs are consumed, a portion will be converted into ketones regardless of what other foods are eaten. Therefore, most any type of diet can be transformed into a ketogenic diet by the addition of an adequate amount of MCTs.

The addition of MCTs into the diet can produce very positive effects on the brain, providing a new tool in which to fight Alzheimer's. In clinical studies

MCTs have produced better results in Alzheimer's patients than any other treatment currently known.

In one study for instance, Alzheimer's patients consumed a beverage containing MCTs or a beverage without MCTs. Those who drank the beverage with the MCTs scored significantly better on cognitive tests.

This study was remarkable for the reason that it produced improvement in cogitative function after a single dose of MCTs. No Alzheimer's drug or treatment has ever come close to achieving results like this. Based on this and similar studies, a new drug consisting of only MCTs has been approved by the FDA for the treatment of Alzheimer's disease.

MCT based drugs aren't really necessary. They are expensive and require a prescription. Any source of MCTs can work just as well. The normal way we get MCTs is in the diet. However, there are few good natural dietary sources of MCTs. By far the largest natural source is found in coconut oil. Coconut oil is composed predominately of MCTs, amounting to about 63 percent of the total. Coconut oil is the source of the MCTs used in Alzheimer's studies and to produce pharmaceuticals. The amount of MCTs in coconut oil is high enough to achieve therapeutic blood levels of ketones. Two tablespoons of coconut oil can produce enough ketones to have a significant effect on brain function and can be used for the treatment of Alzheimer's.

Mary Newport, MD proved that coconut oil alone or in combination with MCT oil can effectively stop the progression of Alzheimer's disease and reverse the symptoms. Her husband Steve, suffered from the disease for nearly six years before he began taking coconut oil. The results were immediate and dramatic. Prior to taking coconut oil he was starting to enter the severe stages of Alzheimer's.

He could no longer take care of himself. He required supervision to complete many day-to-day activities such as replacing a light bulb, vacuuming, doing a load of laundry, washing dishes, and dressing appropriately. He was easily distracted when attempting such tasks, and never got around to completing them. He was no longer able to use a computer keyboard or calculate or perform basic arithmetic. He often wore just one sock or shoe and misplaced the others. He was unable to read because words seemed to move about the page erratically, he had difficulty spelling simple words, such as "out" and "put" and had trouble recalling many common words when speaking.

He also had physical difficulties as well, including a moderate hand tremor that interfered with eating and a jaw tremor that was most apparent while speaking. He walked slowly with an abnormal gait which involved pulling each foot up higher than usual with each step. An MRI showed significant loss of brain mass particularly in the areas involved in memory and cognitive abilities. Drugs such as Aricept, Namenda, and Exelon proved to be of no help.

After starting the coconut oil, his scores on Alzheimer's rating scales improved dramatically. Within just a couple of weeks his score on the Mini Mental Status Exam, a standard test for Alzheimer's went from a low of 12 out of 30 to 18. A very significant improvement, which is unheard of since Alzheimer's is a progressive disease that doesn't get better over time. It always gets worse. His score continued to improve, elevating him from moderately severe up to a mild stage of Alzheimer's.

His memory has improved dramatically. He can recall events that happened days or weeks earlier and relays telephone conversations accurately. He is more focused when performing tasks and is able to complete household and gardening chores with minimal to no supervision. He now wears both shoes and socks and keeps the pairs of shoes together. His ability to initiate and continue a conversation has improved and his sense of humor has returned. He has regained his ability to read and the ability to type. His facial tremor is gone with minimal to no hand tremor. He walks with a normal gait and can run for the first time in more than a year.

He has improved so significantly that he now volunteers twice a week at the hospital where his wife works, helping in the warehouse and delivering supplies. He is pleased with his job and enjoys the people with whom he works. He continues to improve. With a smile on his face he exclaims "I've got my life back."

Other Alzheimer's patients who are incorporating coconut oil into their diets are experiencing similar improvements. There is now a safe and effective treatment for Alzheimer's disease—coconut ketones. Dr. Newport coined the term *coconut ketones* to describe the use of MCTs, and specifically coconut oil, to elevate blood levels of ketones, as opposed to the conversion of body fat into ketones which results from fasting or severe carbohydrate restriction.

Essential Composition and Quality Factors of Virgin Coconut Oil

Parameter	
Moisture (%)	Max 0.1
Matters Volatile at 120° C (%)	Max 0.2
Free Fatty Acid (%)	Max 0.2
Peroxide Value meq/kg	Max 3
Relative density	0.915 – 0.920
Refractive Index at 40° C	1.4480 – 1.4492
Insoluble impurities per cent by mass	Max 0.05
Saponification Value (mg KOH/g sample)	250 – 260
Iodine Value (%)	4.1 -11
Unsaponifiable matter % by mass, max	0.2 - 0.5
Specific gravity at 30 deg./30 deg. C	0.915 – 0.920
Polenske Value, min	13
Total Plate Count	< 0.5
Color	Water clean
Odor and Taste	Natural fresh coconut scent, free of sediment, free from rancid odor and taste

Source: APCC Quality Standards of Coconut Products, 2011 Edition

Who could have imagined that such a simple dietary intervention could produce such a remarkable effect on brain health? The simple of act of adding coconut oil into the diet can both prevent and treat Alzheimer's disease. For treatment purposes a total of 5 tablespoons (74 ml) a day taken with meals is recommended. Add a portion of the coconut oil to each of the three meals consumed during the day. For prevention, take 2-3 tablespoons (30-44 ml) daily.

Anybody can develop Alzheimer's disease at any time. You need not wait until symptoms surface before you start to do something about it. The old saying "an ounce of prevention is worth a pound of cure" is definitely true when it comes to neurodegeneration. You can stop Alzheimer's disease before it has a chance of taking over your life. Adding coconut oil into your daily life can provide that protection.

Gas Liquid Chromatography (GLC) Ranges of Fatty Acid Component of VCO

Common name	Composition	(%)
Caproic acid	C 6:0	0.10 – 0.95
Caprylic acid	C 8:0	4 – 10
Capric acid	C 10:0	4 – 8
Lauric acid	C 12:0	45 – 56
Myristic acid	C 14:0	16 – 21
Palmitic acid	C 16:0	7.5 – 10.2
Stearic acid	C 18:0	2 – 4
Oleic acid	C 18:1	4.5 - 10
Linoleic acid	C 18:2	0.7 – 2.5

Source: APCC Quality Standards of Coconut Products, 2011 Edition

While adding coconut oil into the diet can have a remarkable effect on brain health, coconut ketones alone is not the complete solution. Diet also affects brain health. What you eat can either enhance the effectiveness of ketone therapy or interfere with it. An improper diet can sabotage the beneficial effects produced by coconut ketones. This explains why some Alzheimer's patients who have simply add coconut oil without making any other changes to their diets have experienced only modest improvement. Some foods and food additives promote neurodegeneration.

The best diet for the brain isn't necessarily the typical high-carb, low-fat diet recommended by weight loss gurus and fashion magazines. It's a therapeutic diet low in carbohydrate, rich in healthy fats, and nutritionally balanced to enhance brain health.

Combining coconut ketones with a proper diet can stop Alzheimer's dead in its tracks and bring about substantial improvement. The book *Stop Alzheimer's Now!* provides details on how to use coconut oil along with a proper diet to successfully combat Alzheimer's and other neurodegenerative disorders.

Can Alzheimer's be cured? The program outlined in my book is designed to provide the brain with all the nutrients necessary to quiet chronic inflammation, stop free-radical destruction, energize the brain cells, and stimulate repair and growth of new brain cells; thus allowing the brain to heal itself. With coconut ketones and a proper diet, we can conquer Alzheimer's.

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