



Can you restore brain function after Alzheimer's disease with medium chain triglycerides (MCT) in coconut oil?

Getty Image

<https://youtu.be/NpsC5TsN2tY>

"Of all things I've lost, I miss my mind the most"

-Mark Twain

Brain energy mechanism

Transcript:

If a brain can no longer effectively use glucose as fuel (an observation of many neurodegenerative diseases like Alzheimer's), MCT's in coconut oil producing ketones in the liver may restore the brain cells.

Is this possible?

Over five years ago, Florida neonatologist Dr. Mary Newport, wrote in an article which appeared also in the Face Book, that after giving several spoonsful of coconut oils every day to her husband Steve, suffering from Alzheimer's disease showed much improvement in brain function.

She produced a video about her husband's miraculous improvement in brain function

In the video she shows that her husband Steve could barely remember how to draw a clock. Two weeks after adding coconut oil to his diet, his drawing improved. The oil seemed to "lift the fog" Dr Mary Newport, said.

It was aired on Pat Robertson's Christian Broadcast Network, and the video has been viewed by over five million people.

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After about two years later Steve had suffered a stroke and Dr Mary went silent.

Dr. Newport's recent updates includes few references to coconut oil benefitting people with Alzheimer's disease, but mainly refers to "food-based interventions" as a relief for those sufferers.

Medium chain fatty acids in coconut oil are called MCTs (medium chain triglycerides). Being shorter chains compared to longer chains of fatty acids in other oils like olive oil or vegetable oils, they are broken down in the liver totally and used for energy. When large amount of these MCTs is broken down in the liver, the excess may turn into ketones.

MCTs formed by fatty acids with a length of 6-12 carbon atoms constitute about two thirds of coconut oil.

This is the advantage that MCTs have over longer chain fatty acids, that the excess can be stored in the liver as ketone bodies.

Now how does ketones produced in your liver from MCTs restore brain function in Alzheimer's disease?

Hippocampus is the part of the brain that is vital for memory, and in AD it starts to shrink.

Brain runs on ketones and glucose, like your car runs on petrol, and the brain has a mechanism to switch from glucose to ketones when required. This mechanism is efficient in young adults, but in the elderly people it is weak and may not work.

It is believed that brain energy deficit precedes cognitive decline in conditions of increased risk for Alzheimer's disease

Insulin appears to play a key role in AD. When your body does not produce enough insulin to convert glucose into energy, this in turn decreases the amount of oxygen the fuel- getting into the brain making it harder for the brain cells to communicate with each other, and as a result, memories gradually slip away. The body then produces ketones to provide a source of energy.

It is difficult to improve on the oxygen usage by the brain cells once it has declined in older people., even with exercise.

Ketones seem to be the backup fluid for energy to the brain cells. And someone with AD can use ketones to provide energy to the brain cells and restore normal functions.

As older people may not be able to exercise, they can be given a ketone cocktail to drink, made from MCT in one's kitchen from scraped coconut meat.

Moderate exercise seems to help get more ketones into the brain.

All this is wonderful in theory, but the fact remains that coconut oil consumption regularly has no effect to improve one having Alzheimer's disease.

The countries with the highest volumes of coconut oil consumption in 2018 were the U.S. (507K tonnes), Indonesia (443K tonnes) and India (385K tonnes), with a combined 38% share of global consumption. The Philippines, Germany, the Netherlands, Viet Nam, China,

Malaysia, Mexico, and South Korea lagged somewhat behind, together accounting for a further 36%.

In Sri Lanka, coconut production during the last three decades has averaged 2,365 million nuts per annum, of which about 55 per cent is domestically consumed directly in their staple foods.

The consumption of coconut oil is high in the US as mentioned before, and Alzheimer's is the sixth leading cause of death.

In terms of mortality rates, an estimated 700,000 people will die each year alone from Alzheimer's. It is true that deaths from other major causes have decreased, however, deaths from Alzheimer's have significantly increased. Between the years of 2000 and 2013, mortality rates increased by 71 percent.

Alzheimer's disease (AD) is the most common cause of dementia among people aged 60 years and older. The prevalence of AD ranges from 6.44% in south India, 3.92% in Sri Lanka for the populations above 65 years, being coconut eating nations.

Among developed countries, Japan has the lowest prevalence of both dementia in general and Alzheimer's disease. Coconut is not popular in Japanese cuisines.

So, epidemiological studies reveal that Alzheimer's disease is high in coconut producing and consuming countries, and is difficult to co-relate that coconut oil or the meat, lowers the risk of AD.

The progression of Alzheimer's is often not a steady downward cycle. It usually includes periods of stability and even improvement—which can muddy possible therapeutic benefits.

Insulin resistance promotes brain pathology and promotes the development of Alzheimer's Disease.

Alzheimer's disease may be considered as the Diabetes of the brain. Insulin receptors do not seem to be responding to insulin in the brain

New research today says that insulin, the hormone used to treat diabetes, might someday be useful for treating Alzheimer's disease

Alzheimer's treatments: What's on the horizon?

Despite many promising leads, new treatments for Alzheimer's are slow to emerge.

Several years ago, researchers learned that beta-amyloid interacts with another protein called Fyn. When combined with beta-amyloid, Fyn is over-activated, which triggers a destruction of connections between nerve cells (synapses) in the brain. Studies are currently in progress for drugs that inhibit the Fyn protein.

Conclusions:

There is some evidence to suggest that the fatty acids (MCT) in coconut indirectly result in higher levels of a protein called acetylcholinesterase. High levels of this protein seem to be seen in people with Alzheimer's disease, and the current treatment is to lower the acetylcholinesterase level.

This may mean that coconut oil be harmful to be given to Alzheimer's patients.