

Many of you have been asking me about the latest craze - taking **coconut oil as a remedy (or even a preventative) for Alzheimer's.**

Most of the hype originates from a book written by Dr. Mary Newport about her use of coconut oil to help reduce her husband's Alzheimer's symptoms and subsequent news reports.

So I've been asked "**Is there any truth to these reports? Is coconut oil the long-awaited cure for Alzheimer's?**"

Let's start with the theory, as described by its proponents.

1) Coconut oil is a rich source of **medium chain triglycerides** (66% of the fat in coconut oil consists of medium chain triglycerides). Now that statement requires a bit of explanation.

Triglyceride is another name for fat. Chemically, triglycerides consist of a glycerol backbone to which three fatty acids are attached.

If the chain length of those fatty acids is between 6 and 12, we refer to triglyceride as "medium chain". If the length of those fatty acids is >12, we refer to the triglyceride as "long chain".

So the statement that coconut oil is a rich source of medium chain triglycerides is TRUE.

2) **Medium chain triglycerides are metabolized differently than long chain triglycerides.**

Medium chain triglycerides are absorbed directly into the portal circulation where they go to the liver and are primarily converted to water soluble metabolites called ketone bodies.

Long chain triglycerides, on the other hand, are transported into the circulation through the lymphatic system and are either stored as fat or used for energy - except during starvation or glucose deprivation when they are also converted to ketone bodies by the liver.

So this statement is also TRUE - so far, so good.

3) The theory goes on to say that glucose metabolism gradually becomes impaired in the brains of Alzheimer's patients and postulates that Alzheimer's disease occurs because the brain cells are starved for energy.

Now the theory is starting to get a little fuzzy. It is true that glucose metabolism decreases in the brains of Alzheimer's patients, but it is not clear whether that is the cause of Alzheimer's or a result of the disease.

And, it is also an overly simplistic hypothesis. Both amyloid protein deposits and inflammation are also thought to contribute to the cognitive decline associated with Alzheimer's.

4) **Finally, the theory goes on to say that since brain cells can also use ketone bodies as an energy source, adding coconut oil to the diet should improve brain function in Alzheimer's patients.**

As a professional skeptic (another word for scientist) my immediate reaction is to ask whether there is any proof for the theory. The answer is almost none!

There was one small clinical study a few years ago in which 40 grams of medium chain triglycerides (equivalent to three tablespoons of coconut oil) were given to Alzheimer's patients and a small improvement in symptoms was observed a short time later - and that's it.

I would hardly consider that to be overwhelming scientific evidence.

I have also seen video news reports showing Dr. Newport and her husband. I will take her word for it that his Alzheimer's symptoms were improved, but he obviously still had pretty advanced Alzheimer's.

5) The proponents of coconut oil go on to say that it has received a bum rap as a saturated fat, and, in fact, it raises good cholesterol (HDL) rather than bad cholesterol (LDL).

That's only partially true. When you substitute medium chain triglycerides for the saturated and trans fats in the typical American diet, HDL levels are modestly increased.

However, when you substitute medium chain triglycerides for polyunsaturated fats you see an increase in LDL levels as well.

So medium chain triglycerides aren't necessarily bad fats in terms of heart health, but they are clearly not the best fats.

So with all of that here are my bottom line recommendations:

1) If you have a loved one who is experiencing Alzheimer's, adding a **small amount of medium chain triglycerides is probably not unreasonable.**

There is a tiny bit of evidence that it may offer very modest benefit, and you're probably not concerned with the risk of heart disease.

2) **However, we have no idea what is the optimal amount of coconut oil.**

As I said before, one study showed modest benefits using the equivalent of three tablespoons of coconut oil. **However, no dose-response studies have been done**

However, in the absence of clinical studies establishing efficacy and safety I would not recommend higher intakes of coconut oil. You run the risk of increasing calories or displacing valuable nutrients from the diet.

3) **There is no evidence that coconut oil is a cure for Alzheimer's disease. And since impaired glucose metabolism is just one of several probable causative factors, I consider it unlikely that any treatment that increases ketone bodies will have more than a modest effect.**

4) **I would not recommend coconut oil as a preventative for Alzheimer's. There is absolutely no evidence to support it playing a preventative role and, as I said earlier, it is not the best fat for reducing the risk of heart disease.**

5) **Finally, there is one aspect of metabolism that proponents of this theory have ignored completely. While other tissues can use ketone bodies as an energy source immediately, the brain requires several days to adapt before it can start using ketone bodies effectively.**

That leads the skeptic in me to question whether the reported immediate effects of medium chain triglycerides on Alzheimer's symptoms are due to improvement in brain metabolism at all.

But that's another question for another day.

To Your Health!
Dr. Stephen G Chaney