

“Coconut oil is pure poison” – a scientific refutation

Michael Nehls, MD, PhD

Physician and molecular geneticist

August 24, 2018

This article was written in response to the countless e-mails I received in response to a video circulating on the Internet. In it, a professor from Freiburg, Germany, makes the provocative claim that coconut oil is pure poison. As of this writing, the video has been viewed well over a million times on [YouTube](#)¹, and many of my readers are concerned about this statement.

The professor from Freiburg only justifies her provocation by pointing out that coconut oil consists of more than 90 percent saturated fatty acids. And these, according to her, are highly toxic. But this is where she is wrong, and it can be easily refuted with a little thinking:

Saturated fatty acids – unlike unsaturated fatty acids, especially polyunsaturated fatty acids – are chemically very stable. There is virtually no decomposition when they are heated or exposed to oxygen. Saturated fatty acids cannot oxidize like unsaturated fatty acids and therefore cannot become rancid. Therefore, they do not form toxic radicals and other chemical compounds that could be dangerous for our organism. For this reason, nature in the animal kingdom (and also in us humans) has made saturated fatty acids the main storage medium for food energy.

When our ancestors found and ate wild honey or other carbohydrate-rich foods, their fat cells converted the excess energy from those carbohydrates into saturated fatty acids. It is no different for us today when we eat carbohydrates. The saturated fats are stored in our fat cells. If saturated fatty acids were actually toxic, our body would produce toxins in this way and collect and store them in the fat cells. Even worse, when we fast (which happens in the morning hours if we ate more than 12 hours ago), these saturated fats are released to provide our body with valuable energy. If saturated fats were poisonous, as some claim, fasting would be extremely unhealthy. But the opposite is true!

In order to supply the brain with the energy of the saturated fatty acids previously produced from carbohydrates and stored in the fatty tissue, the fatty acids must be converted in the liver into so-called ketone bodies, because saturated fatty acids cannot directly reach the brain (keyword: blood-brain barrier). This is not a problem for the much smaller ketone bodies. In infants, the stores of saturated fatty acids in the form of baby fat serve to supply the growing brain with ketone bodies. If ketones or their precursors, the stored saturated fatty acids, were actually toxic, it would be a disaster. But of course, nature has no interest in poisoning our newborns. It also makes no sense in evolutionary terms.

However, ketone bodies are not only an important source of energy for the brain during fasting, they also act as hormonal agents with the ability to rejuvenate our body cells. They also stimulate brain growth!

Unfortunately, there is no mention of this important health effect of coconut oil's saturated fatty acids in either the professor's video or the accompanying PDF. Instead, they claim:

¹ https://www.youtube.com/watch?v=Mnc_aon7IMM

*“Coconut oil contains no fiber, no cholesterol,
and only trace amounts of vitamins, minerals, and phytochemicals
– too little to have a positive effect on health.”*

However, coconut oil has a completely different health-promoting effect. I like to repeat this because it is very important to know:

Coconut oil contains mostly medium chain saturated fatty acids (over 60%). Medium chain fatty acids are primarily metabolized in the liver to ketone bodies. Ketone bodies are valuable energy carriers for the brain, which otherwise only reach measurable levels in the blood during fasting (important e.g. for the therapy of Alzheimer's disease, when certain areas of the brain cannot use glucose as an energy carrier!)

Ketone bodies are hormonally active: they stimulate cell renewal and have a rejuvenating effect. They also activate the formation of new brain cells in the hippocampus (our memory center).

As hormonal agents, ketone bodies are the essential messengers for the health-promoting effects of fasting. Coconut oil, with its medium-chain (saturated) fatty acids, thus metabolically induces a state of fasting, even when you are not actually fasting.

Conclusion: The statement “coconut oil contains no dietary fiber, no cholesterol and only trace amounts of vitamins, minerals and phytochemicals” is correct in itself, but the conclusion “– too low to have a positive effect on health” is only partially true and therefore misleading. It gives the false impression that coconut oil is completely devoid of vital substances, while the ketone bodies formed from its fatty acids are very powerful health-promoting agents – and coconut oil contains more of them than any other food.

Another statement from the professor:

“There is not a single human study showing any beneficial effect of coconut oil.”

This is simply not true: there are such studies, as a simple internet search will reveal, here is just one example: [“Randomised trial of coconut oil, olive oil or butter on blood lipids and other cardiovascular risk factors in healthy men and women.”](#)² This was a targeted study comparing the health effects of coconut oil, olive oil, and butter. The result: In terms of “bad” cholesterol (LDL-C), coconut oil is comparable to olive oil, while butter increases it and should therefore be considered unhealthy. In terms of “good” cholesterol (HDL-C), coconut oil increases it and is therefore beneficial, while butter and olive oil have no effect. In short, coconut oil reduces and improves the LDL-C/HDL-C ratio and should be classified as heart-healthy, but certainly not heart-damaging!

Another statement from the professor:

“It has been rumored for some time that saturated fat is not harmful to health.”

² Khaw KT et al: Randomised trial of coconut oil, olive oil or butter on blood lipids and other cardiovascular risk factors in healthy men and women. BMJ Open 2018, <https://pubmed.ncbi.nlm.nih.gov/29511019/>

Well, this is not a rumor, but the result of intensive clinical research, especially in recent years. Before that, unfortunately, it has been proven (see below) that for decades the goal was to demonize saturated fat by deliberately manipulating science and its results. The goal was to promote the market for cheap oils rich in polyunsaturated fatty acids. To this end, it should be understood that US and European agriculture does not produce coconut oil, but mainly rapeseed, corn germ and sunflower oils. In order to cover up the health risk of chronic inflammation or arteriosclerosis posed by these polyunsaturated oils (when consumed in large quantities), people did not hesitate to deliberately manipulate an authoritative clinical study (the now infamous [Minnesota Coronary Experiment of 1968-1973](#))³. The discovery that increased consumption of polyunsaturated versus saturated fatty acids was associated with higher mortality was not (!) mentioned in the original publication. Instead, only the supposed positive effect on cholesterol levels was shown, but this turned out to be completely irrelevant when it came to the long-term survival of the test subjects. Polyunsaturated fatty acids increase (!) cholesterol production, but paradoxically lower cholesterol levels. The reason: the blood vessels absorb more of the cholesterol produced, which makes the blood values look good, but at the expense of the blood vessels. Because the latter store the increased cholesterol produced, it comes to an increased rate of infarcts if one uses increased vegetable oils, which thus contribute to the diet with a surplus at several times insatiable fatty acids. **Conclusion: high amounts of polyunsaturated fatty acids are harmful, saturated fatty acids are not.**

What isn't mentioned: Oils such as corn oil and sunflower oil also contribute to an excess of omega-6 fatty acids, which are also recognized as highly detrimental to health because they have been shown to promote inflammation. In their most biologically active form, known as arachidonic acid, they are found in animal products, especially in factory-farmed pork fat. **The bottom line: Thus, the claim that coconut oil is more toxic than lard is not only unsupported by science, it is deeply misleading.**

The use of coconut oil and palm kernel oil, which are similar in composition, is only beneficial for our organism – and also, as mentioned at the beginning, completely natural: [Humans have been using the benefits of the coconut for millions of years and are perfectly adapted to them.](#)⁴ In other words, the oily flesh has been an essential staple food (and not an exotic superfood) for the longest period of human evolution. All of these facts have been maligned by the food industry for many decades. Instead, coconut's saturated fat has been falsely declared to be harmful to health. U.S. nutrition expert Don McNamara, in an article on tropical oil research subtitled "A Case of Manipulated Perception and Misuse of Science," describes how political and economic forces combined in the 1980s to convince the American public that tropical oils would increase the risk of atherosclerosis.⁵ But the opposite was true. Until then, tropical oils had been the first choice for frying and roasting. Now, however, the industry wanted to replace natural tropical oils with chemically modified oils of their own cheap production, and they succeeded. In order to demonize the perfectly healthy coconut and palm kernel oils and promote the supposedly healthier margarine, the tropical fats were declared to be a health risk because of their high saturated fat content (without any scientific evidence). Says McNamara, "Successful national campaigns were undertaken to force food manufacturers to remove tropical oils, including palm oil, from their products and to replace them with hydrogenated vegeta-

³ Ramsden CE et al: Re-evaluation of the traditional diet-heart hypothesis: analysis of recovered data from Minnesota Coronary Experiment (1968-73). *BMJ* 2016, <https://pubmed.ncbi.nlm.nih.gov/27071971/>

⁴ Harries HC: The evolution, dissemination and classification of *Cocos nucifera*. *Bot Rev* 1978, 44:265-319, <https://www.jstor.org/stable/4353934>

⁵ McNamara DJ et al: Palm oil and health: a case of manipulated perception and misuse of science. *J Am Coll Nutr* 2010, 29: 240-244, <https://www.tandfonline.com/doi/abs/10.1080/07315724.2010.10719840>

ble oils, resulting in increased intakes of trans-fatty acids, which later became the target of the same advocacy groups. Today palm oil is being touted as a suitable replacement for hydrogenated vegetable oils.” The result has now been several decades of cooking, baking, frying and deep-frying with hydrogenated (containing trans fats) and oxidized (because they are easily chemically modified) fats. Who knows how many millions of people have died of preventable or supposedly age-related diseases as a result of these dietary recommendations and unnatural exposure to these actually toxic fatty acids and fatty acid products, and how many more victims will have to be mourned until the causes and consequences of an industrially successful sales campaign are understood and rethought accordingly!

Do you also believe that butter and cheese, sausages and meat products are unhealthy because they are high in saturated fat? And do you think that coconut oil is bad for you because it is high in saturated fat? If so, these are still the effects of successful propaganda – all the worse for the possible consequences of the Freiburg professor's video. Once again, the assumption, which was based partly on false data (see above) and partly on (deliberately) false interpretations, is today considered to be clearly refuted by science. Where the Freiburg professor got her information or why she does not discuss the easily accessible studies is a mystery to me.

As early as 2012, [a comprehensive analysis](#) of all clinical studies to date that have examined the influence of saturated fatty acids on our health came to the conclusion that neither the amount of fat nor the proportion of saturated fatty acids (!) changes the risk of arteriosclerosis.⁶

The world's largest clinical trial on this topic to date was [published in 2017 in the prestigious *Lancet*](#) (one of the highest ranking scientific journals when it comes to clinical trials!).⁷ For the study, data was collected regularly over 7.4 years from approximately 135,000 patients of both sexes with stable ischemic heart disease (a disorder of the heart's blood flow). The patients were between 35 and 70 years old and came from 18 countries and five continents. Based on the results, it was proven beyond doubt that the amount of dietary fat consumed, regardless of the type (!), does not increase the risk of progression of existing heart disease, but even represents a protection (compared to the energy source sugar or carbohydrate) against the worsening of the disease condition. The authors of the study further stated, "High carbohydrate intake was associated with higher risk of total mortality, whereas total fat and individual types of fat were related to lower total mortality. Total fat and types of fat were not associated with cardiovascular disease, myocardial infarction, or cardiovascular disease mortality, whereas saturated fat had an inverse association with stroke [in other words, saturated fatty acids protect against stroke!]. Global dietary guidelines should be reconsidered in light of these findings."

Saturated fats have gained an unwarranted reputation for being unhealthy because, depending on their origin and processing, the foods mentioned also contain saturated fats that are actually unhealthy due to their quantity. Animal fats, for example, are characterized by either an excessive amount of bioactive omega-6 fatty acids (the arachidonic acid found in sausage and lard), or large amounts of harmful trans fatty acids (beef and butter). But because all of these foods also contain

⁶ Baum SJ et al: Fatty acids in cardiovascular health and disease: a comprehensive update. *J Clin Lipidol* 2012, 6:216-234, <https://pubmed.ncbi.nlm.nih.gov/22658146/>

⁷ Dehghan M et al: Prospective Urban Rural Epidemiology (PURE) study investigators. Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study. *Lancet* 2017, 390:2050-2062, <https://pubmed.ncbi.nlm.nih.gov/28864332/>

saturated fats, the common denominator has simply been declared unhealthy - and then immediately transferred to natural coconut oil.

Other statements by the professor:

*"Saturated fats will clog your coronary arteries and lead to certain cardiac death" and,
"Saturated fats are solid at room temperature, while coconut oil is solid.
Anything solid goes right into your coronary arteries."*

There is no logic to this claim (it is simply not plausible) and no evidence. If saturated fats, and especially those found in coconut oil, were indeed responsible for atherosclerosis (with the risk of heart attack and stroke), another question would arise: Why are the saturated fatty acids of coconut oil not found in the pathologically altered walls of the blood vessels (the so-called atheromas), as the professor claims by virtue of her office?

As early as 1994, [a chemical analysis of atheromas](#) (fatty deposits in the damaged wall of a blood vessel), the results of which were also published in the *Lancet*, showed that human atheromas consist essentially of fatty acids chemically bound to cholesterol (from so-called cholesterol esters).⁸ Of these, 74% were unsaturated and only 24% were saturated. None (!) of the saturated fatty acids were lauric acid or myristic acid, the major fatty acids in coconut oil. According to the study author, "These findings imply a direct influence of dietary polyunsaturated fatty acids on aortic plaque formation and suggest that current trends favouring increased intake of polyunsaturated fatty acids should be reconsidered." Statistically, he found no similar association of atheroma formation with saturated fat. **Conclusion: The professor's statements are false!**

She adds another false statement to this one:

*"The more coconut oil, the more clogged coronary arteries,
the higher the risk of heart attack. Coconut oil is pure poison."*

To my knowledge, there is no study that proves this statement, and the professor does not cite one. On the contrary, studies in humans and animals, depending on the study design, show a protective or neutral effect, as in this study: ["A randomized trial of coconut oil versus sunflower oil on cardiovascular risk factors in patients with stable coronary artery disease."](#)⁹

Since there are no scientific facts to support the Freiburg professor's claim, her final argument is the U.S. Heart Association's decision to classify coconut oil as hazardous to health, noting that the U.S. Heart Association is a for-profit corporation that took in nearly three-quarters of a billion dollars last year. It is known for making industry-friendly decisions and living off the food industry's money. It is no wonder that rapeseed oil, although rich in polyunsaturated fatty acids (30 percent), is recommended for frying, and that coconut oil, which would be completely harmless because of its saturated fatty acids, is classified as toxic.

⁸ Felton CV et al: Dietary polyunsaturated fatty acids and composition of human aortic plaques. *Lancet* 1994, 344:1195-1196, <https://pubmed.ncbi.nlm.nih.gov/7934543/>

⁹ Vijayakumar M et al: A randomized study of coconut oil versus sunflower oil on cardiovascular risk factors in patients with stable coronary heart disease. *Indian Heart J.* 2016, 68:498-506, <https://pubmed.ncbi.nlm.nih.gov/27543472/>

Summary & Conclusion

The long-held doctrine that saturated fat (and therefore coconut oil) is unhealthy has been disproven. It contradicts basic evolutionary biology, natural principles, and the most recent prospective clinical studies conducted worldwide.

The claim that coconut oil is a poison, even more toxic than lard, is not only completely unfounded, it defies all scientific logic. The danger posed by this video and/or message should not be underestimated. After all, since the manipulated Minnesota Coronary Experiment, many people have paid with their lives for the mistaken belief that oils rich in polyunsaturated fatty acids can be used for frying and deep-frying without harming their health. I hope that with this small contribution and the ability of readers to think for themselves, the danger will be somewhat contained.