



# Study compares coconut oil against other vegetable oils, makes misleading conclusion again

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**C**onsider weight management: should your goal be to simply lose weight or to achieve your ideal weight? Clearly, the right goal is the latter. Your ideal weight depends on your body type, genetics, sex and age, among others. Unfortunately, media and advertising have made people focus on simply losing weight. The same can be said about advice on low-density lipoprotein-cholesterol (LDL-C) levels.

Another attack on coconut oil has come out now. Published in the American Heart Association (AHA) journal *Circulation*, the article entitled, "The Effect of Coconut Oil Consumption on Cardiovascular Risk Factors" (Neelakantan, Seah & van Dam, 2020) assailed coconut oil for raising LDL-C levels in selected feeding studies, without considering whether the LDL-C levels that resulted were unhealthy or not. The paper's conclusion was based on the singular objective to lower LDL-C, ignoring the more important result of whether the overall lipid profiles were unhealthy in the first place. Like many misleading weight management campaigns, the focus was on lowering LDL-C alone.

This paper was published simultaneously with a supporting commentary by the former president of the AHA (Sacks, 2020) and a news item that appeared in the *tctmd.com* website, which obtains its funding from medical device and pharmaceutical companies.

## The coconut diet is healthy

To put this paper into perspective, a recent meta-analysis on 8 clinical trials and 13 observational studies concluded that coconut-based diets are not linked to an increase in the risk of CVD (Eyres, 2016). A number of Asian and Pacific island population consume significant amount of their calories from coconut. Because fresh coconut meat contains up to 35% coconut oil, this means coconut oil provides up to 15% of their calories. Yet these populations have a low incidence of heart disease and atherosclerosis. So, a coconut diet is not linked to heart disease. What about coconut oil itself?

## Misleading conclusion

The van Dam paper focused on whether there is a link between consumption of coconut oil alone and heart disease and concluded that: "Coconut oil consumption results in significantly higher LDL-cholesterol than nontropical vegetable oils." This is a misleading conclusion for several reasons.

- First, this conclusion focused exclusively on changes in LDL-C levels but ignored the more important point regarding whether the resulting LDL-C levels were unhealthy; they were not. In fact, consumption of coconut oil did not result in unhealthy levels of LDL-C.
- Second, this paper downplayed the beneficial changes in lipid parameters that were due to

coconut oil. In particular, coconut oil raised high-density lipoprotein-cholesterol (HDL-C) levels and gave favorable ratios of total cholesterol to HDL-C. HDL-C, the so-called “good cholesterol,” is associated with heart health.

- Third, this paper mixed ten studies on normal healthy volunteers with six studies on subjects with health conditions, such as obese volunteers on low calorie diets, hyper cholesterolemic patients on statins, and post menopausal women, without considering the differences in their health and physiologic conditions. They mixed the results of the healthy with the unhealthy, and the young (20-40 years old) with the old (41-60 years old). Thus, the pooled average value that they calculated is confusing and meaningless.

- Fourth, this paper compared coconut oil against ten “nontropical” unsaturated vegetable oils, but erroneously— or knowingly? — included four studies using palm oil which is a tropical oil.

### Conflict of interest

The van Dam paper included declarations of the studies regarding industry funding, with the intention of showing potential conflicts of interest (COI). This is good practice. This paper was published in the journal *Circulation*, which is owned by the American Heart Association. Should we not subject AHA to scrutiny for its own conflict of interest? In fact, the AHA has numerous concerns of conflict of interest.

In particular, AHA has been funded for many years by Monsanto, which has a major stake in soybean oil, and by Pfizer, which has a big financial interest in lowering LDL-C through drugs, such as statins. These represent significant conflicts of interest.

### AHA tries again

The AHA, through its journal *Circulation*, regularly attacks coconut oil. In its 2017 presidential advisory, the AHA complained that the American public did not believe the experts’ warning that coconut oil is unhealthy (Sacks, 2017). This AHA presidential advisory failed because it just re-analyzed four old studies – none of which included coconut oil – and used these studies to attack coconut oil. This new 2020 meta-analysis yet another attempt by the AHA to attack coconut oil, this time using studies that include coconut oil. Still, the results of the 16 papers failed to show that coconut oil causes heart disease. And if the four palm oil studies are removed from the meta-analysis, this paper has even less straws to grasp.

Unfortunately for the AHA, the truth is not on their side. The American public is now realizing that coconut oil is, in fact, healthy. With the beneficial effects of coconut oil, lauric acid, and the ketogenic diet being experienced by a health-conscious population, the AHA may have felt the need to launch another attack to keep the public from the truth. ■

### References

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