

No, Vegetable Oil Won't Make Girls Lazy, TV-Watching Diabetics



By Alex Berezow, PhD — April 14, 2017



This cub will be watching too much TV soon. (Credit: J. Couperus/Wikipedia) [1]

When I was learning how to do word problems in elementary school, we were taught to ask ourselves a few questions after arriving at an answer. One of them was, "Does my answer make sense?" For example, if a problem asked how many apples a person can buy if he has \$5 and each apple costs 50 cents and your answer is negative 17 million, something has gone horribly wrong.

Does my answer make sense? is such a great question, that every published scientific paper henceforth should be required to answer it explicitly. Perhaps we would avoid seeing [papers](#) [2] with titles like this:

Analysis using national databases reveals a positive association between dietary polyunsaturated fatty acids with TV watching and diabetes in European females

[2]

In other words, eating too many polyunsaturated fats (e.g., fish and foods cooked with vegetable oil) will make women lazy, TV-watching diabetics. Now, let's apply the elementary school criterion, *Does my answer make sense?*

Red flag #1. [Unsaturated fats are healthy](#) [3]. Monounsaturated fats are found in olive oil and nuts. (The Mediterranean diet is full of monounsaturated fats.) Polyunsaturated fats (PUFAs) are found in fish and vegetable oils. Salmon, for example, is a good source of omega-3 fatty acids, a

particularly healthy PUFA. Vegetable oils contain lots of omega-6 fatty acids.

Red flag #2. However, a [small animal study](#) [4] conducted previously by the authors suggests that not all PUFAs are healthy. Rats fed omega-6 fatty acids were lazy and showed signs of insulin resistance (which can lead to type 2 diabetes). Worse, a [review article](#) [5] concluded that the Western diet has increasingly added more and more omega-6 fatty acids, which it blames for causing:

"...increases in chronic inflammatory diseases such as nonalcoholic fatty liver disease (NAFLD), cardiovascular disease, obesity, inflammatory bowel disease (IBD), rheumatoid arthritis, and Alzheimer's disease (AD)."

There are at least three problems. First, it is unlikely that a single food component (in this case, omega-6 fatty acid) is causing a multitude of illnesses. Second, laziness isn't one of them. Third, many things have changed in the past few decades, not just the Western diet. We now have more laptops, smartphones, and electric vehicles. Using similar logic, we could say that Angry Birds and Toyota Priuses are causing Alzheimer's.

Red flag #3. The team's methodology was terrible. The researchers examined the behavior of 11-year-old girls. They collected data not on individuals but on entire nations, which is a weak study design. They showed that for every 1 percentage point increase in the amount of polyunsaturated fats eaten, there was a 4 percentage increase in the number of 11-year-old girls who watched more than two hours of television. The authors' conclusion? Eating PUFAs makes kids lazy.

There are two huge problems. First, the authors did not analyze omega-3 and omega-6 fatty acids separately. Instead, they lumped all PUFAs together, despite omega-6 fatty acids being the supposed problem, not all PUFAs. Second, if PUFAs turn kids into lazy, good-for-nothing, couch potatoes, then there should be a correlation between eating PUFAs and obesity. But the authors did not find one, which means the results are internally inconsistent.

Red flag #4. The authors thought Norway was weird, so they removed it from their analysis.

Red flag #5. The authors also examined PUFA consumption in women aged 25 and older. They did not find a link between PUFAs and obesity. And they also did not find a link between PUFA consumption and diabetes, even though the paper's title, a university [press release](#) [6], and sensationalist media coverage suggests that they did.

Red flag #6. As Ross Pomeroy, my friend and former colleague at [RealClearScience](#) [7] pointed out to me, the study was partially funded by egg and dairy farmers. The question of who funds research doesn't matter if the science is good. Accurate science is accurate whether it was paid for by government, industry, the Koch Brothers, George Soros, or Vladimir Putin. But the question of funding might matter if the science is bad, as it clearly is in this study. And, in this case, egg/dairy farmers have an incentive to promote the idea that PUFAs are unhealthy. Why? Because they want people to eat more eggs and dairy, which contain saturated fats. That's neither evil nor necessarily wrong, but it helps explain why this shoddy research exists.

In conclusion, the authors found basically nothing, and convinced the media that cooking oil makes girls fat, lazy, diabetics. *That does not make sense.*

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Links

[1] https://en.wikipedia.org/wiki/Salmon#/media/File:Cub_with_trophy.jpg

[2] <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0173084>

[3] <http://www.health.harvard.edu/staying-healthy/the-truth-about-fats-bad-and-good>

[4] [http://www.jnutbio.com/article/S0955-2863\(14\)00247-2/abstract](http://www.jnutbio.com/article/S0955-2863(14)00247-2/abstract)

[5] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3335257/>

[6] https://www.eurekalert.org/pub_releases/2017-04/uobc-urc041117.php

[7] <http://www.realclearscience.com/>