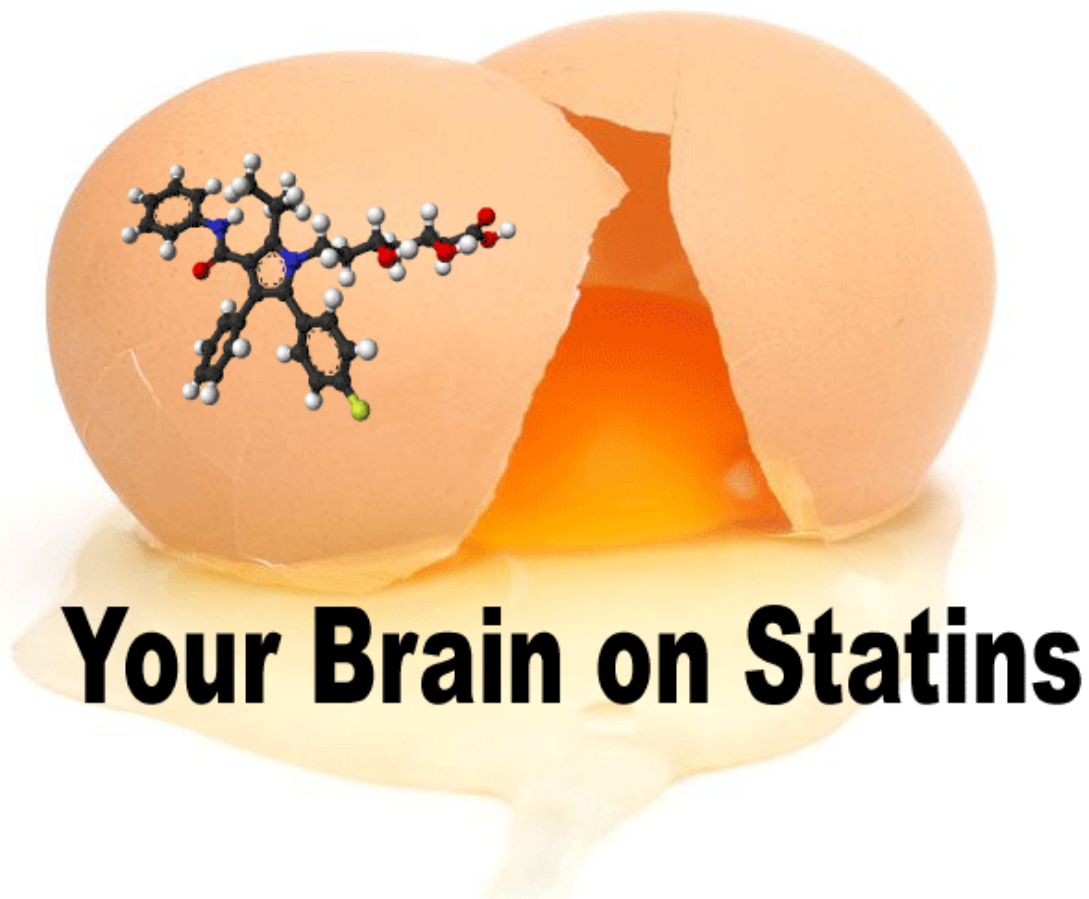


# Study Links Statins to 300+ Adverse Health Effects

By Kelly Brogan, MD (<https://kellybroganmd.com/author/kelly-brogan/>)



## Your Brain on Statins

By Kelly Brogan, MD, and Sayer Ji, [Greenmedinfo.com](http://www.greenmedinfo.com)  
(<http://www.greenmedinfo.com>)

***A new study finds the chemical war against cholesterol using statin drugs was justified through statistical deception and the cover up of over 300 adverse health effects documented in the biomedical literature.***

Better safe than sorry, right? This is the logic that defines the grasp that the pharmaceutical company has on our psyche. Perhaps your mother, father, brother, and boyfriend have been recommended cholesterol-lowering medication, just to help hedge their bets around a possible chest-clutching demise. In fact, recent guidelines have expanded the pool of potential statin medication recipients, so that there seem to be very few of us walking around with acceptable levels of artery-clogging sludge.

But how is it that drug companies got a foothold? How have they convinced doctors that their patients need these medications, and need them now? They are banking (literally) on the fact that you haven't brushed up on statistics in a while.

## Getting Tricky with Data

It turns out that a common sleight of hand in the medical literature is the popularization of claims around "relative risk reduction" which can make an effect appear meaningful, when the "absolute risk reduction" reveals its insignificance. In this way, 100 people are treated with statin medications to offer 1 person benefit, and the change from a 2% to a 1% heart attack rate is billed a 50% reduction rather than a 1% improvement, *which is what it actually is.*

Perhaps this would still qualify as better safe than sorry if these medications weren't some of the most toxic chemicals willfully ingested, with at least **300 adverse health effects** (<http://www.greenmedinfo.com/guide/health-guide-statin-drugs>) evident in the published literature so far, with at least 28 distinct modes of toxicity, including:



- Muscle damage (myotoxicity): view **80 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=44387>).
- Nerve damage (neurotoxicity): view **54 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=35335>).
- Liver damage (hepatotoxicity): view **32 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=35669>).
- Endocrine disruption: view **16 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=35562>).
- Cancer-promoting: view **9 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=35415>).
- Diabetes-promoting: view **8 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=37045>).
- Cardiovascular-damaging: view **15 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=35779>).
- Birth defect causing (teratogenic): view **11 studies here** (<http://www.greenmedinfo.com/toxic-ingredient/statin-drugs?ed=35663>).

Beyond the known fact that statin drugs deplete the body of two essential nutrients: coenzyme Q10 and selenium, they are also highly myotoxic and neurotoxic. Because the heart is one of the most nerve-saturated muscles in the human body, these two

modes of toxicity combined represent a ‘perfect storm’ of cardiotoxicity – a highly ironic fact considering statin drugs are promoted as having ‘life-saving’ cardioprotective properties.

## Intent to Deceive

A powerful expert review by Diamond and Ravnskov decimates any plausible indication for these cholesterol-lowering agents, giving full consideration to the above mentioned side effects.

They plainly state:



*“Overall, our goal in this review is to explain how the war on cholesterol has been fought by advocates that have used statistical deception to create the appearance that statins are wonder drugs, when the reality is that their trivial benefit is more than offset by their adverse effects.”*

## The Cholesterol Myth

It’s tempting to look the number one killer of Americans in the eye, and say, “WHO did this? Who is responsible?” It is also consistent with American perceptions of health and wellness to demonize a natural and vital part of our physiology rather than look at lifestyle factors including government subsidies of inflammatory food products.

Not only is **low cholesterol a problem**

(<http://www.greenmedinfo.com/blog/underreported-dangers-low-cholesterol>), but it puts an individual at risk for viral infection, cancer, and mental illness because of

the vital role that lipids play in cell membrane integrity, hormone production, and immunity.

A broadly toxic xenobiotic chemical, statin medications have only been demonstrated to be of slight benefit by statistical manipulation. For example, Diamond and Raynskov elucidate that:



- *The JUPITER trial of Crestor vs placebo resulted in increased fatal heart attacks in the treatment group which were obscured by combining fatal and nonfatal infarctions.*
- *In the ASCOT trial was used to generate PR copy boasting Lipitor's 36% reduction of heart attack risk, a figure arrived at through use of relative risk reduction from 3 to 2%.*
- *The HPS study has 26% drop out rate prior to the beginning of the trial (which also demonstrated a 1% improvement with treatment), so that those with significant side effects were functionally excluded from the study.*

While no study has ever shown any association between the degree of cholesterol lowering and beneficial outcomes described in terms of absolute risk reduction (likely because they would be perceived as insignificant), the adverse effects are not only always presented in these terms, but are also minimized through the technique of splitting common side effects up into multiple different categories to minimize the apparent incidence.

These side effects are real and common and include “increased rates of cancer, cataracts, diabetes, cognitive impairment and musculoskeletal disorders”. Their paper focuses on three primary adverse effects, all of which are likely to land you in the “sorry to have thought I would be better safe than sorry” category.

# Statins Linked to Cancer?

In at least four trials, statistically significant increases in cancer incidence was found, and handily dismissed by all authors as insignificant because they claimed “no known potential biological basis” is known. This may be because the authors are still thinking of cancer as a genetic time bomb that has nothing to do with mitochondrial dysfunction, loss of lipid integrity, or environmental exposures.

With statistically significant increases in cancer incidence and deaths, in some trials, the minimal cardiovascular benefit is far eclipsed by the cancer mortality. In one of the only long-term trials, there was a doubling of the incidence of ductal and lobular breast cancer in women taking statins for more than ten years. One of many reasons that **women should never be treated with these medications** ([http://www.huffingtonpost.com/kelly-brogan-md/women-statins\\_b\\_4283650.html](http://www.huffingtonpost.com/kelly-brogan-md/women-statins_b_4283650.html)).

## ...and Myopathy

As one of the more well-known side effects of statins, muscle breakdown and associated pain, or myopathy has also been obscured in the literature. Despite an incidence up to 40% in the first months of treatment, researchers only catalogue patients who had muscular symptoms in addition to elevations in a blood measure called creatine kinase (CK) at ten times normal for two measures (not 9.9, not 8, and not one measure).

In fact, a 2006 study in the Journal of Pathology found that **statin therapy induces ultrastructural damage in skeletal muscle in patients without myalgia** (<http://www.greenmedinfo.com/article/statin-drugs-induce-ultrastructural-damage-skeletal-muscle-patients-without-myalgia>),” indicating that statin-associated muscle damage may be a universal, albeit mostly subclinical problem for the millions put on them.

# ...and Central Nervous System Dysfunction

Linked to suicide in men, [depression \(http://demo.carriedils.net/article/luscious-lipids-cholesterol-is-vital-for-brain-health/\)](http://demo.carriedils.net/article/luscious-lipids-cholesterol-is-vital-for-brain-health/) including [postpartum \(http://demo.carriedils.net/snippet/cholesterol-protection-depression-pregnancy/\)](http://demo.carriedils.net/snippet/cholesterol-protection-depression-pregnancy/), and cognitive dysfunction, low cholesterol is not a desirable goal for the average psychiatric patient, aka half of the American population.

It turns out that 25% of the total amount of cholesterol found in the human body is localized in the brain, most of it in the myelin sheath that coats and insulates the nerves:



*"It has been estimated that up to 70% of the brain cholesterol is associated with myelin. Because up to half of the white matter may be composed of myelin, it is unsurprising that the brain is the most cholesterol-rich organ in the body. The concentration of cholesterol in the brain, and particularly in myelin, is consistent with an essential function related to its membrane properties. "*  
[http://www.greenmedinfo.com/blog/cracking-cholesterol-myth-how-statins-harm-body-and-mind?page=2#\\_edn1](http://www.greenmedinfo.com/blog/cracking-cholesterol-myth-how-statins-harm-body-and-mind?page=2#_edn1)

The cell membrane, specifically, is highly vulnerable to damage by statins:



*“The cell membrane is an 8 nanometer thick magical pearly gate where information, nutrients, and cellular messengers are trafficked through protein gates supported of phospholipids and their polyunsaturated fatty acids. Cholesterol and saturated fat provide essential rigidity in balance with other membrane components. Without them, the membrane becomes a porous, dysfunctional swinging gate. In a self-preservational effort, cholesterol supports production of bile acids, integral to the breakdown and absorption of consumed essential dietary fats.”*

**Source (<http://demo.carriedils.net/article/luscious-lipids-cholesterol-is-vital-for-brain-health/>)**

By extension, behavioral and cognitive adverse effects may be the manifestation of this fat-based interference. Diamond and Ravnskov state:



*A low serum cholesterol level has also been found to serve as a biological marker of major depression and suicidal behavior, whereas high cholesterol is protective <sup>54–57</sup>. In a study by Davison and Kaplan <sup>58</sup>, the incidence of suicidal ideation among adults with mood disorders was more than 2.5-times greater in those taking statins. Moreover, several studies have shown that low cholesterol is associated with lower cognition and Alzheimer’s disease and that high cholesterol is protective.*

**A [review article called Neuropsychiatric Adverse Events Associated with Statins: Epidemiology, Pathophysiology, Prevention and Management](http://demo.carriedils.net/snippet/statins-mental-health-sabotage/) (<http://demo.carriedils.net/snippet/statins-mental-health-sabotage/>) discusses the**



state of the literature around the intersection between mental health and cholesterol control. Despite generally dismissing a strong signal for concerning psychiatric adverse events, the article seems to conclude the following:

- Severe irritability, homicidal impulses, threats, road rage, depression and violence, paranoia, alienation, and antisocial behavior; cognitive and memory impairments; sleep disturbance; and sexual dysfunction have all been reported in case series and national registries of those taking statin medications. Sound like the laundry list of rapidly spoken side effects at the end of a drug commercial? To anyone with a history of or current psychiatric symptoms, the role of these now ubiquitous medications should be appreciated.
- The signal for lipophilic statins – simvastatin and atorvastatin – was stronger which makes mechanistic sense since these medications penetrate the brain and brain cholesterol deficiency has been implicated in bipolar, major depression, and schizophrenia.

## Statins: Not Worth the Harm

Of course, none of these findings nor their suppression should be surprising because there is no pharmaceutical free lunch, and because Americans are so accustomed to interfacing with human health through the lens of a one pill-one ill model. We are yanking on that spider web and expecting only one thread to pull out. This perspective would be less disturbing if it didn't serve as the foundation for medical practice, determined by boards such as the American College of Cardiology and The American Heart Association, the majority of whom have extensive ties to the pharmaceutical industry. An industry that has paid out **19.2 billion dollars** (<http://www.fiercepharma.com/story/pharma-shelled-out-375b-fraud-penalties-record-setting-year-feds-say/2014-02-26>) for civil and criminal charges in the last 5 years alone.

So, the next time you hear of a doctor recommending a cholesterol-lowering intervention, tell him you'll take that 1% risk and spare yourself cancer, cognitive dysfunction, myopathy, and diabetes. And then go have a 3 egg omelette WITH the yolks.

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