

Statins Double Risk of Dementia, Are Linked to COVID Deaths

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✓ Fact Checked

STORY AT-A-GLANCE

- › Statins do not protect against cardiovascular disease and more than double the risk of dementia in some cases
- › People with early mild cognitive impairment and low to moderate cholesterol levels who used lipophilic statins had more than double the risk of dementia compared to those who did not use statins
- › Statin users also had significant decline in metabolism of the brain's posterior cingulate cortex, which is the brain region that declines most significantly in early Alzheimer's disease
- › Among patients with Type 2 diabetes admitted to a hospital for COVID-19, those taking statins had significantly higher mortality rates from COVID-19 compared to those not taking the drugs
- › People who take statins are more than twice as likely to be diagnosed with diabetes and those who take the drugs for longer than two years have more than triple the risk

The use of statin cholesterol-lowering medications has been on the rise for decades¹ and they are among the most widely used drugs in the world. In the U.S., close to 50% of U.S. adults over 75 years old take a statin² to lower their cholesterol in the misguided hope of preventing heart disease, heart attacks and stroke.

Not only is there strong evidence suggesting that statins are a **colossal waste of money**, but their use may also harm your brain health – more than doubling your risk of dementia in some cases.³

The benefit must clearly outweigh the risk when it comes to any drug treatment, but this is rarely the case with statins, which do not protect against cardiovascular disease and are linked to a number of health conditions^{4,5} including dementia, diabetes⁶ and even increased risk of death from COVID-19.⁷

Statins Doubled Risk of Developing Dementia

Statins' effects on cognitive performance have previously been called into question, since lower levels of low-density lipoprotein (LDL) cholesterol are **linked to a higher risk of dementia**.⁸ The featured study, published in The Journal of Nuclear Medicine,⁹ involved people with mild cognitive impairment and looked into the effects of two types of statins: hydrophilic and lipophilic.

Hydrophilic statins, which include pravastatin (Pravachol) and rosuvastatin (Crestor), dissolve more readily in water, while lipophilic statins, such as atorvastatin (Lipitor), simvastatin (Zocor), Fluvastatin (Lescol), and lovastatin (Altoprev), dissolve more readily in fats.¹⁰ Lipophilic statins can easily enter cells¹¹ and be distributed throughout your body, whereas hydrophilic statins focus on the liver.¹²

According to study author Prasanna Padmanabham of the University of California, Los Angeles, "There have been many conflicting studies on the effects of statin drugs on cognition. While some claim that statins protect users against dementia, others assert that they accelerate the development of dementia. Our study aimed to clarify the relationship between statin use and subject's long-term cognitive trajectory."¹³

Subjects were divided into groups based on cognitive status, cholesterol levels and type of statin used, and followed for eight years. Those with early mild cognitive impairment and low to moderate cholesterol levels at the start of the study who used lipophilic statins had more than double the risk of dementia compared to those who did not use statins.¹⁴

Further, this group also had significant decline in metabolism of the brain's posterior cingulate cortex, which is the brain region that declines most significantly in early Alzheimer's disease.¹⁵

Your Brain Needs Cholesterol

About 25% to 30% of your body's total cholesterol is found in your brain, where it is an essential part of neurons. In your brain, **cholesterol** helps develop and maintain the plasticity and function of your neurons,¹⁶ and data from the Shanghai Aging Study revealed that high levels of LDL cholesterol are inversely associated with dementia in those aged 50 years and over.

"High level of LDL-C may be considered as a potential protective factor against cognition decline," the researchers noted.¹⁷ They compiled a number of mechanisms on why lower cholesterol may be damaging for brain health, including the fact that lower cholesterol is linked with higher mortality in the elderly and may occur alongside malnutrition and chronic diseases, including cancer. As it specifically relates to brain health, however, they suggested:¹⁸

- Decreasing cholesterol levels in the elderly may be associated with cerebral atrophy, which occurs with dementia
- High LDL cholesterol may be beneficial by reducing neurons' impairments or helping repair injured neurons
- Acceleration of neurodegeneration has occurred when neurons were short on cellular cholesterol or cholesterol supply
- Cholesterol plays an important role in the synthesis, transportation and metabolism of steroid hormones and lipid-soluble vitamins, and both of these are important to synaptic integrity and neurotransmission

Lower cholesterol levels were also associated with worse cognitive function among South Korean study participants aged 65 and over, and were considered to be a "state marker for AD [Alzheimer's disease]."¹⁹

A U.S. study of more than 4,300 Medicare recipients aged 65 and over also revealed that higher levels of total cholesterol were associated with a decreased risk of Alzheimer's disease, even after adjusting for cardiovascular risk factors and other related variables.²⁰

Statins Increase Death Risk From COVID-19

The risks to brain health are only one red flag tied to statins. A concerning link was also uncovered among statins, diabetes and an increased risk of severe disease from COVID-19.²¹ Among patients with Type 2 diabetes admitted to a hospital for COVID-19, those taking statins had significantly higher mortality rates from COVID-19 within seven days and 28 days compared to those not taking the drugs.

The researchers acknowledged those taking statins were older, more frequently male and often had more comorbidities, including high blood pressure, heart failure and complications of diabetes. However, despite the limitations, the researchers found enough evidence in the over 2,400 participants to conclude:²²

"... our present results do not support the hypothesis of a protective role of routine statin use against COVID-19, at least not in hospitalized patients with T2DM (Type 2 diabetes mellitus).

Indeed, the potentially deleterious effects of routine statin treatment on COVID-19-related mortality demands further investigation and, as recently highlighted, only appropriately designed and powered randomized controlled trials will be able to properly address this important issue."

Statins Double – or Triple – Diabetes Risk

A connection already exists between statins and diabetes, to the extent that people who take statins are more than twice as likely to be diagnosed with diabetes than those who do not, and those who take the drugs for longer than two years have more than triple the risk.^{23,24}

“The fact that increased duration of statin use was associated with an increased risk of diabetes – something we call a dose-dependent relationship – makes us think that this is likely a causal relationship,” study author Victoria Zigmont, a graduate researcher in public health at The Ohio State University in Columbus, said in a news release.²⁵

The data also indicated that individuals taking statin medications had a 6.5% increased risk of high blood sugar as measured by hemoglobin A1c value,²⁶ which is an average level of blood sugar measuring the past 60 to 90 days.

Researchers with the Erasmus Medical Center in The Netherlands also analyzed data from more than 9,500 patients, finding those who had ever used statins had a 38% higher risk of Type 2 diabetes, with the risk being higher in those with impaired glucose homeostasis and those who were overweight or obese.²⁷

The researchers concluded, “Individuals using statins may be at higher risk for hyperglycemia, insulin resistance and eventually Type 2 diabetes. Rigorous preventive strategies such as glucose control and weight reduction in patients when initiating statin therapy might help minimize the risk of diabetes.”

But a far better strategy may be preventing insulin resistance in the first place, by avoiding statin drugs and eating a healthy diet. According to Dr. Aseem Malhotra, an interventional cardiologist consultant in London, U.K. – who has been attacked for being a “**statin denier**” after calling out the drugs’ side effects²⁸ – and a colleague:²⁹

“In young adults, preventing insulin resistance could prevent 42% of myocardial infarctions, a larger reduction than correcting hypertension (36 %), low high-density lipoprotein cholesterol (HDL-C) (31 %), body mass index (BMI) (21 %) or LDL-C (16 %).³⁰

It is plausible that the small benefits of statins in the prevention of CVD come from pleiotropic effects which are independent of LDL-lowering. The focus in primary prevention should therefore be on foods and food groups that have a proven benefit in reducing hard endpoints and mortality.”

The Statin Scam

Even as saturated fats and cholesterol have been vilified, and statin drugs have become among the most widely prescribed medications worldwide, **heart disease** remains a top killer.³¹ Today, statin drugs to reduce cholesterol levels are recommended for four broad patient populations:³²

1. Those who have already had a cardiovascular event
2. Adults with diabetes
3. Individuals with LDL cholesterol levels ≥ 190 mg/dL
4. Individuals with an estimated 10-year cardiovascular risk $\geq 7.5\%$ (based on an algorithm that uses your age, gender, blood pressure, total cholesterol, high density lipoproteins (HDL), race and history of diabetes to predict the likelihood you'll experience a heart attack in the coming 10 years)

Despite statins being prescribed for these sizable groups, and “target” cholesterol levels being achieved, a systematic review of 35 randomized, controlled trials found that no additional benefits were gained. According to an analysis in *BMJ Evidence-Based Medicine*:³³

“Recommending cholesterol lowering treatment based on estimated cardiovascular risk fails to identify many high-risk patients and may lead to unnecessary treatment of low-risk individuals. The negative results of numerous cholesterol lowering randomized controlled trials call into question the validity of using low density lipoprotein cholesterol as a surrogate target for the prevention of cardiovascular disease.”

Even in the case of recurrent cardiovascular events, despite the increase in statin use from 1999 to 2013, researchers writing in *BMC Cardiovascular Disorders* noted, “there was only a small decrease in the incidence of recurrent CVD, and this occurred mainly in older patients without statins prescribed.”³⁴

Statins Won't Protect Your Heart Health

Statins are effective at lowering cholesterol, but whether this is the panacea for helping you avoid heart disease and extend your lifespan is a topic of heated debate. Again in 2018, a scientific review presented substantial evidence that high LDL and total cholesterol are not an indication of heart disease risk, and that statin treatment is of doubtful benefit as a form of primary prevention for this reason.³⁵

In short, these drugs have done nothing to derail the rising trend of heart disease, while putting users at increased risk of health conditions like diabetes, dementia and others, such as:

- Cancer³⁶
- Cataracts³⁷
- Triple risk of coronary artery and aortic artery calcification³⁸
- Musculoskeletal disorders, including myalgia, muscle weakness, **muscle cramps**, rhabdomyolysis and autoimmune muscle disease³⁹
- Depression⁴⁰

In the event you're taking statins, be aware that they deplete your body of **coenzyme Q10** (CoQ10) and inhibit the synthesis of **vitamin K2**. The risks of CoQ10 depletion can be somewhat offset by taking a Coenzyme Q10 supplement or, if you're over 40, its reduced form ubiquinol. But ultimately, if you're looking to protect both your brain and heart health, avoiding statin drugs and instead **optimizing your diet** may be the answer.

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