Higher Cholesterol Is Associated With Longer Life

Analysis by Dr. Joseph Mercola   ✓ Fact Checked | May 21, 2022

STORY AT-A-GLANCE

> Cholesterol, the soft, waxy substance found in every cell in your body, is used to produce several of your body's vital functions, including hormones and vitamin D. High cholesterol is now recognized for its link to longer life

> Faulty science says your total cholesterol is not a gauge of your heart disease risk, because when your levels are measured, elevated levels called triglycerides are also taken into account

> Found in every cell of your body, cholesterol is used to produce several of your body's vital functions, including those that involve hormones and vitamin D

> Studies show a contrary or inverse link between all-cause mortality and total cholesterol levels; in other words, mortality is highest when your cholesterol is low, without exception

> Considering the false information on cholesterol, continued prescriptions for statins, and the potentially devastating side effects they cause, it's clear why researchers are calling for a paradigm shift in the way cholesterol is treated

This article was previously published September 2, 2019, and has been updated with new information.

For those who aren't sure the conventional health community is wholly in support of individual health when it comes to cholesterol levels — which in some cases still adheres to the story line that too much cholesterol increases the risk of heart disease — you're right to be concerned.

Taking a global view of what cholesterol is and how it affects your body is a smarter way to approach it than the simple "cholesterol kills" narrative that's been the drum beat for so many years.

Cholesterol, the soft, waxy substance found in every cell in your body, is used to produce several of your body's vital functions, including those that involve hormones and vitamin D. About 75% of it is made by your liver and the remainder is derived from the foods you eat; 25% is in your brain.

There are two types: High-density is the first. It is also known as HDL, or the "good" kind that keeps cholesterol away from your arteries and removes it from your arteries. The second type is low density lipoprotein, or LDL. LDL is the "bad" kind that can build up in your arteries, form plaque that narrows your arteries and form a clot. This can then make its way to your heart or brain and cause either a heart attack or stroke.

The American Heart Association (AHA)[1] now recommends that you balance your levels at about 150 (milligrams per deciliter) (mg/dL). According to old, unfounded science, your total cholesterol — the sum of all the cholesterol in your body — is not a gauge of your heart disease risk. When your levels are measured, elevated levels of triglycerides are also taken into account. According to Børge Nordestgaard, from the University of Copenhagen and Copenhagen University Hospital:

> *"So far, both cardiologists and [physicians] have focused mostly on reducing LDL cholesterol, but in the future, the focus will also be on reducing triglycerides and remnant cholesterol."*[2]

Does It Matter What Kills You?

In a commentary posted on Mission.org, a rhetorical question is presented: With all the ways you can die, does it really matter what kills you? On one hand, "If you're dead, you're dead, no matter from what," so it seems silly to "focus on changing something that lowers the risk of death from one cause only to raise that risk from another."[3]

It's an astute observation when you read studies showing conclusively that cholesterol has very little to do with heart disease. Even more importantly, cholesterol is crucial for your health. If it's too low, then eventually, your hormones, disease risk, cell signaling pathways, and yes, your heart, will suffer. In fact, new research shows that a too-low LDL level could put you at higher risk for a stroke.[4]

The Dietary Guidelines Advisory Committee (DGAC), which reviews the Dietary Guidelines for Americans every five years, investigated the issue. On page 91 of the 572-page report, the 2015-2020 guidelines noted:[5]

> *"Previously, the Dietary Guidelines for Americans recommended that cholesterol intake be limited to no more than 300 mg/day.*
>
> *The 2015 DGAC will not bring forward this recommendation because available evidence shows no appreciable relationship between consumption of dietary cholesterol and serum (blood) cholesterol, consistent with the AHA/ACC (American Heart Association / American College of Cardiology) report. Cholesterol is not a nutrient of concern for overconsumption."*

Yet, even though the government's ChooseMyPlate doesn't mention cholesterol, it's obvious the cholesterol-is-evil myth is being pushed by physicians and medical agencies such as Harvard Health, which has proposed its own dietary guidelines called "The Healthy Eating Plate."[6]

Chastising the USDA for remaining "silent on fat," Harvard Health says this "could steer consumers toward the type of low-fat, high-carbohydrate diet that makes it harder to control weight and worsens blood cholesterol profiles."

It's no wonder people are confused about where cholesterol fits in your diet, when major health agencies send one message to the public and the government sends a completely different one in their dietary guidelines.

Interestingly, the 2015-2020 guidelines were created nearly seven years ago, but information on the importance of cholesterol is nearly two decades old.[7] As the

Honolulu Heart Program study published in The Lancet in 2001 states:

> *"Our data accord with previous findings of increased mortality in elderly people with low serum cholesterol, and show that long-term persistence of low cholesterol concentration actually increases risk of death."*

The narrative challenges those who insist that eating foods that contain fat of any kind — saturated fats and trans fats alike — are harmful. Many who make this claim also maintain that "Saturated fat is a bad fat because it raises your LDL level more than anything else in your diet."[8] However, as explained in the Mission.org article:

> *"While total cholesterol is a poor if not utterly worthless risk marker for heart disease, doctors have focused on it to the exclusion of how it might affect other causes of death. It does you little good to save yourself from heart disease if it means that you increase your risk of death from cancer. All-cause mortality — death from anything — is the most appropriate measure to use when looking at risk factors."[9]*

The Best Measure for Risk Factors

"Death from anything" may be a clearer term for the one so often used in clinical settings: All-cause mortality. Either way, as quoted by the following study, that's what the latest research says is the best measure for the factors that increase the risk of what eventually and most likely will take someone's life.

When it comes to your risk of death from heart disease, there's much more evidence that inflammation is at the bottom of heart disease rather than high cholesterol, just as it is for a number of other serious diseases. If you want to find what might help you live longer, that's the premise of a lengthy Japanese study published in the Annals of Nutrition & Metabolism. As the featured study, it notes that regardless of someone's age, people with higher cholesterol live longer:

> *"Overall, an inverse trend is found between all-cause mortality and total (or low density lipoprotein [LDL]) cholesterol levels: mortality is highest in the lowest*

cholesterol group without exception. If limited to elderly people, this trend is universal. As discussed in Section 2, elderly people with the highest cholesterol levels have the highest survival rates irrespective of where they live in the world ...

Based on data from Japan, we propose a new direction in the use of cholesterol medications for global health promotion; namely, recognizing that cholesterol is a negative risk factor for all-cause mortality and re-examining our use of cholesterol medications accordingly."[10]

After showing that people of all ages with higher cholesterol levels live longer in Japan, in support of these conclusions, similar conclusions were made by a study based in the Netherlands and published in BMJ in 2016.[11]

The study adjusted for several heart risk factors like smoking, high blood pressure and a history of diabetes melllitus. Participants were placed in groups depending on whether their cholesterol levels were low, medium or high, and those with the highest cholesterol levels were found to have the lowest death rates.

The title of the BMJ review reveals the outcome — there was a "lack of an association or an inverse association between low-density-lipoprotein cholesterol and mortality in the elderly."[12]

In short, older people with high LDL cholesterol generally live just as long as — and may even outlive — people with low LDL, which begs the question of how the current cholesterol theory was arrived at in the first place. At the very least, the study authors imply the cholesterol question should at least be re-evaluated. It concluded:

"Our review provides the basis for more research about the cause of atherosclerosis and (cardiovascular disease) and also for a re-evaluation of the guidelines for cardiovascular prevention, in particular because the benefits from statin treatment have been exaggerated."[13]

One of the first studies published with information suggesting that high cholesterol is not as heart-damaging as once thought was the Honolulu Heart Program,[14] offering further evidence that higher cholesterol levels may be heart protective. The authors concluded by questioning whether there is "scientific justification for attempts to lower cholesterol to concentrations below 4-65 mmol/L in elderly people," adding that "prudence dictates a more conservative approach in this age group."[15]

Can High Cholesterol Really Be Heart Protective?

Perhaps the question that would get to the point quicker is to ask why the Japanese study infers that people with low versus high cholesterol die sooner? The Mission offers referenced studies that show a few factors that could be weighing in:

- Cholesterol may protect against infections and atherosclerosis, as "the many observations that conflict with the LDL receptor hypothesis, may be explained by the idea that high serum cholesterol and/or high LDL is protective against infection and atherosclerosis."[16]

- Cholesterol may protect against cancer, although in previous cases where low cholesterol was linked to cancer, exclusions were made to tip the scales, such as excluding possible prior drug treatment, namely clofibrate, a popular cholesterol-lowering drug before statins, by subjects — leaving the question open as to whether it was the low cholesterol that caused the cancer, or the drug treatments that contributed to it.[17]

- Low cholesterol (180 mg/dL and lower) and violence in psychiatric patients have been linked. When patients in a long-term psychiatric hospital with a history of seclusion or restraints were compared with other patients, there was a "highly significant and strong association between lower cholesterol levels and violent behavior." The authors did caution, however, that cholesterol levels should not be used to predict violence.[18]

- There's also an association between low cholesterol and suicide dating back more than a decade, as researchers found that people in the lowest quartile of cholesterol concentration had more than six times the suicide rates than those in the highest quartile.[19]

It should be noted that at least one study in Japan[20] determined that high cholesterol and suicide were connected.

But, in fact, numerous recent studies have corroborated the earlier ones connecting low cholesterol to suicide,[21] with various findings: For example, one found that low triglycerides, reduced BMI and waist circumference, specifically, but not total cholesterol, were connected to a higher risk of suicide;[22] while a 2019 study[23] found that "low cholesterol is associated with aggression in suicide attempters."

So What About Statins?

Significantly, the authors of an Annals of Nutrition & Metabolism study didn't hold back when drawing conclusions regarding why the cholesterol conundrum has gone on so long when the evidence is so clear: "For the side defending this so-called cholesterol theory, the amount of money at stake is too much to lose the fight."[24]

The Annals of Nutrition & Metabolism study's introduction mentions a medical practitioner who advocated statins to his patients to drive down cholesterol until he read the Scandinavian Simvastatin Survival Study,[25] in which 4,444 patients with different types of heart disease were given simvastatin — which is touted to be a safe, long-term treatment to improve survival in cardiovascular heart disease patients.

As it turns out, the claim that high cholesterol causes heart disease and death is incorrect; it is, in fact, the opposite. Three reviews[26,27,28] supporting the cholesterol hypothesis were found to contain altered data to support their conclusions, according to Expert Review of Clinical Pharmacology, in which it is noted that:

> "Our search for falsifications of the cholesterol hypothesis confirms that … the conclusions of the authors of the three reviews are based on misleading

statistics, exclusion of unsuccessful trials and by ignoring numerous contradictory observations."[29]

Drugs.com[30] contributors state that the 35 million people on statins often experience myriad side effects. Liver damage, for instance, is said to be "rare," implying that ongoing liver tests while taking statins likely aren't necessary. Some doctors, however, say you'll need a baseline liver function test beforehand. The most common side effects of statins are:

- Headaches, muscle pain, lower back or side pain

- Nasal congestion or stuffiness, or a runny nose

- Difficulty sleeping

- Constipation

- Hoarseness

And, just in case you needed another source to implicate statins' role in psychiatric problems, an April 2018 study found that lowering cholesterol levels in men could bring about changes in nerve cell membranes and behavior in men:

> *"Men seem to be more sensitive to low cholesterol levels as the association between low cholesterol levels and aggression is found mostly in men," the authors said. "… Lowering cholesterol levels with statins brings about several changes in the serotonergic system, nerve cell membrane microviscosity and behaviour, and needs to be done with precaution in susceptible individuals.*
>
> *Cholesterol levels could serve as a biological risk marker for violence and suicidal tendencies in psychiatric patients with depression and schizophrenia."*

More Studies and Reviews on Statin Use

Rather than pointing patients in the direction of finding dietary solutions, including eating both the whites and the yolks when having eggs, and ditching processed

vegetable oils in favor of healthy cooking oils like coconut oil, olive oil and avocado oil, Harvard Health Medical School updated an article on how to "manage" muscle pain from taking statins, perpetuating the cholesterol myth. They stated:

> "If you're not taking a statin now, you may well be soon. These medications are commonly prescribed to lower 'bad' LDL cholesterol and have been shown to reduce the risk of heart attack, stroke, and death.
>
> They are routinely recommended for people who have cardiovascular disease and for many people ages 40 to 75 who don't have cardiovascular disease but have at least one risk factor (high blood pressure, high cholesterol, diabetes, or smoking) and a 7.5% or greater risk of a stroke or heart attack in the next decade.
>
> Moreover, recent research indicates that they may benefit high risk individuals over age 75 as well … Taking a statin may give you some assurance that you're doing all you can to avoid heart attack and stroke …"[31]

Exercising, losing weight, adopting healthy eating habits and including vitamin D and coenzyme Q10 (CoQ10) supplements in your diet are all good strategies for maintaining your cholesterol levels. Unfortunately, the common suggestion for alleviating muscle pain due to statin use is more of the same — just try taking a lower dose or switching to another statin prescription.[32]

As if that weren't enough, experts say statins may impair your memory and cause amnesia, a possibility real enough to call for a warning on the labels of prescriptions.[33] Statin use may precipitate a higher risk of developing cataracts[34] and it "significantly" increases the likelihood of raising the fasting glucose levels of non-diabetics, as well as inducing high blood sugar.[35]

In another review of the adverse effects of statins, it was noted that "an array of additional risk factors for statin AEs [adverse events] are those that amplify (or reflect) mitochondrial or metabolic vulnerability, such as metabolic syndrome factors, thyroid disease, and genetic mutations linked to mitochondrial dysfunction."[36]

Given the false information saying cholesterol is at fault for causing heart-related disease, the continued prescriptions being handed out to patients for statins, and the side effects they cause, it's clear why, in their introduction, the authors of the Annals of Nutrition & Metabolism study stressed:[37]

> "This, we believe, marks the starting point of a paradigm shift in not only how we understand the role cholesterol plays in health, but also how we provide cholesterol treatment …
>
> Our purpose in writing this supplementary issue is to help everyone understand the issue of cholesterol better than before, and we hope that we lay out the case for why a paradigm shift in cholesterol treatment is needed, and sooner rather than later."

Sources and References

- [1] AHA November 28, 2019
- [2] Medical News Today August 12, 2019
- [3, 9] Mission.org September 26, 2016
- [4] Neurology July 30, 2019
- [5] CNN. Cholesterol in Food Not a Concern, New Report Says. February 19, 2015
- [6] Harvard Health. Healthy Eating Plate vs. USDA's MyPlate
- [7, 19] Epidemiology March 2001, Volume 12, Issue 2, pgs. 168-172
- [8] Medline Plus February 27, 2019
- [10, 24, 37] Annals of Nutrition & Metabolism April 30, 2015
- [11, 12, 13] BMJ June 12, 2016 Volume 6, Issue 6
- [14, 15] The Lancet August 4, 2001;358(9279):351-5
- [16] QJM: An International Journal of Medicine December 1, 2003
- [17] Q J Med 2012;105:383−388
- [18] Psychiatric Services February 1998;49(2):221-4
- [20] Acta Psychiatrica Scandanvica May 26, 2017 Volume 136 Issue 3
- [21] Annals of General Psychiatry April 17, 2017 Article number: 20 (2017)
- [22] Journal of Affective Disorders Volume 172, 1 February 2015, Pages 403-409
- [23] Psychiatry Research Volume 273 March 2019, Pages 430-434
- [25] The Lancet November 19, 1994; Volume 344, pgs. 1383-1389
- [26] The Lancet September 8, 2016; 388: 2532−61
- [27] JAMA September 27, 2016
- [28] European Heart Journal April 24, 2017; Volume 38, Issue 32, pgs. 2459−2472

- [29] Expert Review of Clinical Pharmacology October 11, 2018; Volume 11, Issue 10, pgs. 959-970
- [30] Drugs.com September 10, 2018
- [31] Harvard Health August 9, 2019
- [32] Medscape October 16, 2015
- [33] PLoS One September 10, 2013
- [34] JAMA November 2013
- [35] Cardiovascular Diabetology December 5, 2018
- [36] Am J Cardiovasc Drugs. April 6, 2008; 8(6):373-418