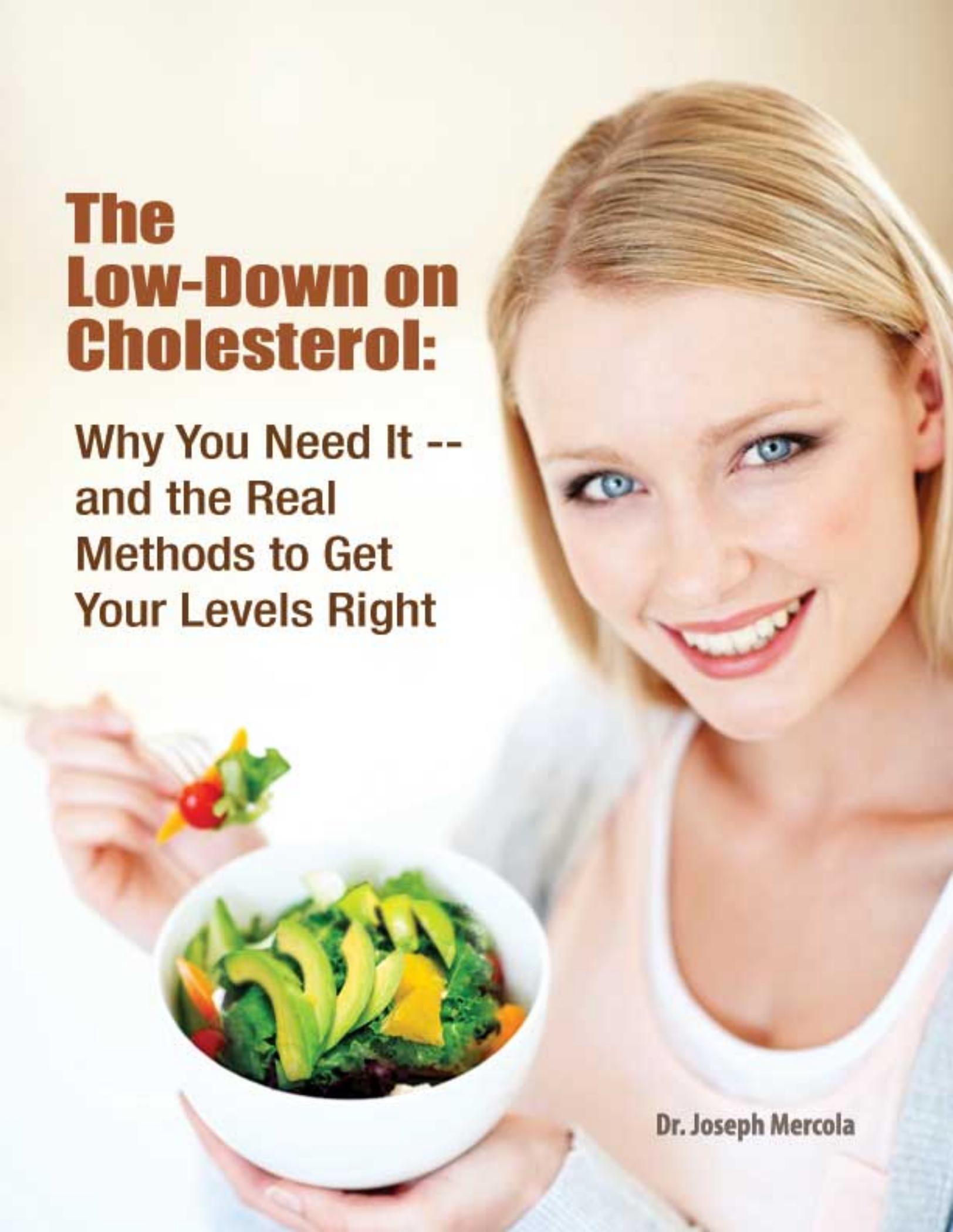


# **The Low-Down on Cholesterol:**

**Why You Need It --  
and the Real  
Methods to Get  
Your Levels Right**

A young woman with blonde hair and blue eyes is smiling warmly at the camera. She is wearing a light pink top and a grey cardigan. She is holding a white bowl filled with a fresh salad, including green leafy vegetables, sliced avocado, and cherry tomatoes. In her right hand, she holds a fork with a small portion of the salad. The background is a plain, light-colored wall.

**Dr. Joseph Mercola**

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## The Low-Down on Cholesterol: Why You Need It—and the Real Methods to Get Your Levels Right

Cholesterol could easily be described as the smoking gun of the past half-century, being held responsible for killing countless numbers of people and wreaking havoc on the world's health in general.



It doesn't matter whether it's dietary cholesterol (found in foods) or blood cholesterol (the natural waxy substance in your body) that you're talking about. Cholesterol in any form has been marked as dangerous for decades.

As such, it's been responsible for demonizing entire categories of foods (like eggs and saturated fats) and blamed for just about every case of heart disease in the last 20 to 30 years.

Around this premise, a multi-billion-dollar industry promoting statins and other cholesterol-lowering drugs has been the primary weapon for fighting the cholesterol war. Today, nearly a third of Americans over age 40 are taking cholesterol-lowering drugs, with nearly half of people over age 75 on them.<sup>1</sup>

This war has also been the catalyst for a whole new food industry peddling low-fat, no-fat, and low- or no-cholesterol packaged and processed meats, dairy products, snacks and desserts.

In fact, the anti-cholesterol crusade has been so insidious in our daily lives that only a few years ago, it seemed like there was [no end in sight](#) to it. From the USDA's food pyramid-plate<sup>2</sup> to school lunches<sup>3</sup> to medical centers<sup>4</sup> and heart hospitals,<sup>5</sup> everyone with any connection at all to conventional medicine was at war with cholesterol.

Then, suddenly, in early 2015, the US Dietary Guidelines Advisory Committee announced that dietary cholesterol is no longer “a nutrient of concern for overconsumption.”<sup>6</sup>

The news stunned the world, causing a flurry of both praise and protest among health care professionals.

Dr. Arthur Labovitz, chairman of the cardiovascular department at the University of South Florida's Morsani College of Medicine and a board member of the Tampa Bay American Heart Association, was among those supporting the committee's decision to call off the cholesterol food war.

"What we've learned is the amount of cholesterol you eat really does not have a really profound impact on the cholesterol in your blood," Labovitz told the *Tampa Bay Times*.<sup>7</sup> "... We're not telling people to eat five eggs a day. What we're saying is (cholesterol in food) is not poison."

On the flip side, physicians like Neal D. Barnard, founding president of the Physicians Committee for Responsible Medicine, protested that the new guidelines were a disaster in the making. "The committee made a scientific error on cholesterol, and to carry that mistake into the guidelines is not scientifically defensible and serves only to perpetuate confusion," the *Albuquerque Journal* reported Barnard as telling the advisory committee.<sup>8</sup>

So which is it? Is cholesterol the demon it was made out to be for decades? Or should foods with cholesterol in them actually be part of a healthy eating plan? And what about blood cholesterol—are the numbers really all that significant, or have they, too, been blown out of proportion?

To answer that, let's look at what cholesterol is, and the history behind how it came to be so reviled.

## What Is Cholesterol, and Why Do You Need It?

This soft, waxy substance is found not only in your bloodstream, but also in every cell in your body, where it helps produce cell membranes, hormones, vitamin D, and bile acids that help digest fat.

Contrary to the idea that cholesterol is a “bad” thing, it actually is critical for your health and well-being. It not only helps in the formation of your memories, but is vital for neurological function. In fact, your brain is the most cholesterol-rich organ in your body, and studies show that cholesterol is a crucial component of normal brain functions such as learning and memory.<sup>9</sup>

Your liver makes about 75 percent of your body’s cholesterol,<sup>10</sup> of which there are two primary types:



1. **High-density lipoprotein, or HDL:** This is what has been known as the “good” cholesterol that helps keep your arteries clear. HDLs scavenge and remove LDLs by transporting them back to your liver for processing. HDLs also help prevent heart disease by aiding in the repair of the inner walls of your blood vessels, which can become clogged with plaque.
2. **Low-density lipoprotein, or LDL:** This is the “bad” cholesterol that health officials warn you about that circulates in your blood and, according to conventional thinking, builds up in your arteries, forming plaque that makes your arteries narrow and less flexible (a condition called atherosclerosis). If a clot forms in one of these narrowed arteries leading to your heart or brain, a heart attack or stroke may result.

Also making up your cholesterol numbers are:

- **Triglycerides:** Elevated levels of this fat have been linked to heart disease and diabetes. Triglyceride levels are known to rise from eating too many grains and sugars, being physically inactive, smoking cigarettes, drinking alcohol excessively, and being overweight or obese.

- **Very low-density lipoprotein (VLDL):** It's responsible for dispersing the triglycerides your liver makes. To get a better picture of your triglyceride levels and how well your liver and pancreas are working, your doctor will sometimes add a VLDL report to your cholesterol test.
- **Triglyceride-rich-lipoprotein (TRL):** New research indicates that higher levels of TRL are associated with increased risk for a cardiovascular event. TRL is calculated by subtracting non-HDL cholesterol from LDL cholesterol.<sup>11, 12</sup>
- **Lipoprotein (a), or Lp(a):** Lp(a) is made up of an LDL "bad cholesterol" part plus a protein (apoprotein a). Elevated Lp(a) levels are a very strong risk factor for heart disease. This has been well established; yet, very few physicians check for it in their patients.

Ironically, while you're always hearing about what could possibly happen if your triglycerides, total cholesterol, or LDLs get too high, you almost never hear about what could happen when they're too low—and it is possible to get very sick if your levels are too low.

I will discuss too-low cholesterol levels later in this report, but for now it's important to remember that if your levels drop suddenly, or if they are consistently extremely low, you may want to talk with your physician to make sure that you are otherwise healthy.

## Total Cholesterol Is Not a Good Indicator of Your Heart Disease Risk

It was 1985 when the National Heart, Lung and Blood Institute initiated the National Cholesterol Program (NCEP) encouraging all adults to have their cholesterol levels checked at least once every five years,<sup>13</sup> and to take steps to lower their levels if they were deemed too high.

Back then, anyone age 40 and over wasn't considered at high risk for heart disease—and therefore eligible for treatment—until their levels were greater than 260.<sup>14</sup>



But now the American Heart Association says<sup>15</sup> that your total cholesterol should be under 180 mg/dL, which is 20 points less than they recommended only a few years ago, and nearly 100 points less than it was in 1983.<sup>16</sup>

What's amazing is that when I first opened my medical practice in the mid-1980s, cholesterol, and the fear of having too high a level was rarely even discussed unless your total levels were over 330 or more!

I have seen a number of people with levels over 250 who actually were at low heart disease risk due to their HDL levels. Conversely, I have seen even more who had cholesterol levels under 200 that were at a very high risk of heart disease based on the following additional tests:

- Your HDL/Cholesterol ratio
- Your Triglyceride/HDL ratios

The reason for these additional tests is because HDL percentage is a very potent predictor as a heart disease risk factor.

To find out what your HDL-to-total cholesterol ratio is, just divide your total cholesterol by your HDL level. For example: if your total cholesterol is 200 and your HDL is 50, you would divide 200 by 50. Your HDL cholesterol ratio to total cholesterol is then 4-to-1. Preferably it should be under 5-to-1 or 5.0. Ideally, it

should be 3.5-to-1 or lower—and the lower it is, the lower your risk of heart disease.<sup>17</sup>

You can do the same thing with your triglycerides and HDL ratio, as well as your LDL/HDL ratio. Your triglycerides/HDL ratio should preferably be under 4 and ideally, under 2. Your LDL/HDL ratio should preferably be under 5.0 and ideally under 2.0.

Keep in mind, however, that these are still simply *guidelines*, and there's a lot more that goes into your risk of heart disease than any one of these numbers—which is a major reason why the treatment guidelines were changed, and something called a “risk calculator tool” introduced to replace total cholesterol levels as a measurement for cholesterol drug treatment.

In fact, it was only after word got out that total cholesterol is a poor predictor of heart disease that HDL and LDL cholesterol were even brought into the picture. But still, they don't show you everything, even though they do give you a closer idea of what's going on.

So what is the purpose of continually lowering target cholesterol numbers—unless it's solely to make you a candidate for drug treatment? Before I answer that, let's look at what the new “risk calculator” does.

## New Heart Risk Assessment 'Calculator' Puts More People Than Ever on Statins



As I said at the beginning of this E-book, statistics show that nearly a third of adults age 40 or over in the US today, and nearly half over age 75, are taking prescription drugs to lower their cholesterol. But judging from new statin-prescribing guidelines from the American Heart Association (AHA) and American College of Cardiology (ACC), it looks like even more people will be on them in the coming years.

The AHA and ACC changed the prescribing guidelines for cholesterol treatment in November 2013.<sup>18</sup> Before then, physicians relied on total cholesterol counts and triglyceride numbers to decide whether to prescribe statins or other cholesterol-lowering drugs for their patients.

But now, in addition to testing your cholesterol levels, your physician will utilize something called a “risk calculator” to estimate your lifetime risk for heart disease.<sup>19</sup>

Taking your age, sex, race, total cholesterol, HDL cholesterol, systolic blood pressure, blood pressure-lowering drugs (if you’re on them), diabetes status, and smoking status into consideration, the calculator is supposed to identify four groups of people who should be on statins. They are:<sup>20</sup>

1. Individuals with a history of heart disease, heart attacks, angina, stroke, or other cardiovascular conditions
2. Those with LDL levels at or higher than 190 mg/dl
3. Anyone ages 40-75 years who has diabetes and an LDL range of 70-189 who does not have a clinical diagnosis of vascular disease
4. Anyone aged 40-75 who doesn’t have cardiovascular disease or diabetes, but who does have an LDL of 70-189 mg/dl and who has, according to the calculator, an estimated 7.5 percent or higher risk of getting heart disease within the next 10 years

Like the dietary guidelines that came later, the calculator debuted amid a flood of controversy because it basically did away with “treating to meet” certain cholesterol levels, while possibly giving statins to a whole new category of people who have never had symptoms of cardiovascular disease and who had not been previously considered for statins.<sup>21</sup>

The problem with this is that if health care providers follow the new guidelines exactly as they are presented, as many as 59 percent more women and 47 percent more men will be taking statins than if they had been diagnosed under the old guidelines.<sup>22</sup>

Also under the new guidelines, everyone over age 20<sup>23</sup> who has not been diagnosed with cardiovascular disease is to have their cholesterol tested once every four to six years.

But if you have heart disease or another chronic illness such as diabetes, obesity, fatty liver disease, metabolic syndrome, or kidney disease, your doctor will probably check your cholesterol every year—and, again, most likely will put you on statins or other cholesterol-lowering drugs such as fenofibrates.

And if you think this applies only to adults, think again because children are now targeted for statins too.

## New Pediatric/Adolescent Guidelines = Hundreds of Thousands of Children on Statins

In 2012 the National Heart, Lung, and Blood Institute (NHLBI), together with the National Institutes of Health and the US Department of Health and Human Services, published new guidelines for pediatric cardiovascular health and risk reduction in children and adolescents.<sup>24</sup>

Although the NHLBI claimed that the new guidelines were nothing to get alarmed about, they still highlighted the fact that the war on cholesterol had been escalated to include children—beginning at birth. Under these guidelines, the NHLBI recommends:

- Routine measurement of length/height and weight beginning in infancy, with calculation of BMI annually beginning at age 2 years
- Detailed family history of cardiovascular disease (CVD) at birth, 3 years, every year from 9 to 11, and at 18 years, and if family history of CVD is confirmed, follow-up family history for additional risk factors including dyslipidemia (abnormal cholesterol levels), hypertension, diabetes, obesity, history of smoking, and sedentary lifestyle
- Yearly assessment of blood pressure from age 3 years
- Universal lipid assessments for all children ages 9-11 and screening for lipid abnormalities by a non-fasting, non-HDL-C level at age 10
- Universal lipid screening once during this time period for all young people ages 17-21



While the guidelines state that “only a small number of children will require pharmacologic therapy” using this criteria, they still have generated as much controversy among pediatric physicians as the new adult guidelines have among cardiologists.

According to a media advisory issued by the *Journal of the American Medical Association (JAMA)*, adhering to the pediatric guidelines means that an **additional 483,500 young people** with elevated LDL levels could now qualify for statin treatment, compared to 78,200 if these children were evaluated under the adult guidelines that they used to go by!<sup>25, 26</sup>

Talk about priming the younger generation for a lifetime of reliance on prescription drugs!

The numbers are so staggering that specialists at Boston Children’s Hospital felt it necessary to publicly urge patients and clinicians to “clearly address other modifiable risk factors” such as diet and exercise before actually resorting to statins or other cholesterol-lowering drugs for young people—an idea that even some cardiologists endorsed.

*“Medication should be the last resort and a true behavioral and healthy lifestyle program should be implemented,”* Dr. Suzanne Steinbaum, a cardiologist at Lenox Hill Hospital in New York City, told Health Day News.

*“Regardless of the guidelines, we need to not have this younger generation rely on medication, but instill in them what healthy food choices, exercise and smoking cessation means before simply giving them a pill.”<sup>27</sup>*

When you consider the serious side effects (such as diabetes and myopathy) that are possible with statins—coupled with the use and side effects of drugs to counteract those side effects—it’s hard to imagine how statins could be justified at all in children.

Even so, the new pediatric guidelines say that pharmacological attempts—translation: cholesterol-lowering drugs—can begin as early as age 8, depending on the “severity of the risk factors” that a child may have for CVD.

## Cholesterol Is Neither ‘Good’ Nor ‘Bad’

Now that we’ve defined what cholesterol is, why you need it, and how it’s measured, let’s look at what flawed “science” has done to malign this important component of your body’s functions.



More than 50 years ago, something called the Framingham Study set the stage for condemning high blood cholesterol as the cause of heart disease, and that dietary cholesterol and saturated fats were the cause of high cholesterol.<sup>28</sup> But was this blame justified?

Dr. Fred Kummerow is a biochemist and food scientist who has been researching the science of lipids, cholesterol, heart disease, and nutrition for nearly seven decades—yes, almost 70 years—and he [will tell you](#) unequivocally that it’s NOT cholesterol that causes heart disease.

Rather, it’s [trans fats that are to blame](#), which was basically what the Dietary Guidelines Advisory Committee (DGAC) conceded when the committee announced that from now, on, “cholesterol is not considered a nutrient for overconsumption.”<sup>29</sup>

While cholesterol in food is not the same as cholesterol in the blood, changing the dietary guidelines is a ground-breaking step toward changing the paradigm by which health care has been operating when it comes to cholesterol in general. And Dr. Kummerow may be the person to thank for that.

You see, in 2009, he filed a citizen petition with the FDA calling for a ban on synthetic trans fats. In the petition he noted that trans fats can cause blood clots in the arteries, which can then cause sudden death.

When the FDA didn’t respond to his petition after four years, he filed a lawsuit against the agency in 2013.<sup>30</sup> Curiously, shortly after that, the FDA announced that it was considering removing partially hydrogenated oils (PHOs)—the primary source of trans fats—from its list of “generally recognized as safe” (GRAS) ingredients.

And then, in June 2015, they announced<sup>31</sup> that they were totally revoking the GRAS status of PHOs.<sup>32</sup> And suddenly, major media like *The Washington Post* were paying attention and asking: was it Dr. Kummerow's lawsuit that finally stirred the FDA into action?<sup>33</sup>

I've interviewed and featured Dr. Kummerow [numerous times](#) in my [online articles](#), and I believe wholeheartedly that the answer to that is yes, indeed, it was his persistence that made the FDA acknowledge the truth about cholesterol. And the truth is that cholesterol shouldn't be called either good or bad and, in fact, should be respected as a vital component of your overall health.

## The Evolution of Cholesterol as a Measurement of Heart Health

In a book he published in 2014, *Cholesterol Is Not the Culprit: A Guide to Preventing Heart Disease*, Dr. Kummerow explains how cholesterol evolved as a “bad” guy. A half-century before the Framingham study, in 1906, the hypothesis that high cholesterol was a major risk factor in heart disease was introduced with a study that, like the Framingham study, later proved to be flawed.



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But the flaws were ignored, and decades of anti-cholesterol thinking followed, literally obstructing any substantial progress toward reducing the real cause of heart disease.

Thus, treating cholesterol numbers became the chosen mode of fighting heart disease, and after statins were discovered, they became the blockbuster tool for slashing cholesterol levels. In the meantime, partially hydrogenated vegetable oils—introduced in 1911 largely in the form of shortening—got a free pass, and people began consuming trans fats in thousands of different foods and recipes.

Cookbooks were rewritten to replace lard and butter with shortening. Packaged foods, from cookies to canned frostings to potato chips and more were made with this new “miracle” cooking companion. It also was wildly popular for deep-fried

foods, because shortening has a high smoke point and is stable enough to cook at temperatures necessary for deep-frying.

Today, many companies making processed foods with PHOs have cut back on trans fats or eliminated them. But it took nearly a century for the FDA—pushed by Dr. Kummerow—to finally put the hammer on these heart-destroying oils.

## Simply Lowering Cholesterol Is Not Going to ‘Fix’ Heart Disease

Dr. Kummerow says up-front that he disagrees with the numbers that have been set for optimum total cholesterol. He also disagrees with the standards that measure heart disease risk: when it comes to labeling “good” and “bad” cholesterol, both labels are wrong, he says. The right amount of cholesterol depends on the individual, which varies from person to person:

*“The public has an overly simplistic view of cholesterol that leads them to believe that simply lowering cholesterol levels reduces heart disease risks,”* Dr. Kummerow says. *“While levels of LDL and HDL are likely to say a great deal about your diet—especially your fat intake—it is your fat intake (both amount and kind) that likely impacts your health in a crucial way.”*

*“The problem is not LDL, the ‘bad cholesterol’ widely considered to be the major cause of heart disease,”* he told *The New York Times*<sup>34</sup> in 2013. *“What matters is whether the cholesterol and fat residing in those LDL particles have been oxidized... Cholesterol has nothing to do with heart disease, except if it’s oxidized.”* The Times continued:

*“[He] contends that the high temperatures used in commercial frying cause inherently unstable polyunsaturated oils to oxidize, and that these oxidized fatty acids become a destructive part of LDL particles. Even when not oxidized by frying, soybean and corn oils can oxidize inside the body.”*

So while naturally cholesterol-rich foods are good for you, if those foods are fried or heated to high temperatures, [the cholesterol may become oxidized](#)... and this form of cholesterol should be avoided.

## If Not Cholesterol, What Then?

So if cholesterol isn't the culprit causing heart disease, what is it about trans fats and oxidized cholesterol that cause heart problems—and more importantly, what can you do about it? Dr. Kummerow published a paper<sup>35</sup> in 2014 showing that there are two lipids (fats) in our diet responsible for the formation of heart disease. The first is trans fat found in partially hydrogenated oil.

The other is oxidized cholesterol, formed when cholesterol is heated. The primary source of the latter is fried foods. Powdered egg yolk is another example of a food where heating has damaged the fat to the point of creating harmful oxidized cholesterol. *Oxidized* cholesterol (again, not dietary cholesterol in and of itself) causes increased thromboxane formation—a factor that clots your blood.

*"You have prostacyclin that keeps your blood flowing, and thromboxane that clots your blood. You have to be very careful about the ratio, the amount of each in the blood. That's the simple explanation [for what causes heart disease]," Dr. Kummerow says. "In 2011, 325,000 people died from sudden death... and we're going to keep on seeing people die of sudden death [unless trans fats are removed entirely from the diet]."*

*In 1958, I showed that if I fed a rat trans fat and then took it out of the diet, in a month, the trans fat is... metabolized out. There's no more trans fat in the body. If today the FDA decided that no more trans fat should be in the diet, next month, people who have been eating this fat will have lost the trans fat. It would have been metabolized. There would be—next year and the year after—less death from sudden deaths."*

Once you understand this within the context of the number of products in the American diet that still contain trans fats—at least 30,000—it's easy to see why getting fried foods, trans fats, and all processed foods (which often contain trans fats) out of your diet should be your No. 1 priority for heart disease prevention. The only question is why did the FDA take so long to admit this?

## Cholesterol Is Your Friend, Not Your Enemy

Before we continue, I really would like you to put your mind around the concept that cholesterol is your friend, not your enemy.

In the United States, even with the new dietary guidelines, the idea that cholesterol is evil is still very much engrained in most people's minds. Unfortunately, it may take years for Americans to "get" that dietary cholesterol does NOT increase your risk of heart disease, and that avoiding healthy animal foods like butter, grass-fed beef, and eggs simply denies you the enjoyment of wholesome, healthy foods.

Thank goodness the truth is finally coming out—a reversal that was praised by Cleveland Clinic cardiologist Dr. Steven Nissen. "It's the right decision. We got the dietary guidelines wrong. They've been wrong for decades," he told *USA Today*.<sup>36</sup>

That is astounding, coming from someone like Dr. Nissen. Perhaps now it will be easier for Americans to get on the right road for taking control of their health and heart.

This is why cholesterol-rich and saturated fat-rich animal foods are featured in my [nutrition plan](#).

Many of the healthiest foods also happen to be rich in cholesterol and saturated fats. Like cholesterol, [saturated fat](#) has also been wrongly vilified. In 2010, a meta-analysis published in the *American Journal of Clinical Nutrition*<sup>37</sup> came to the conclusion that there's "no significant evidence... that saturated fat is associated with an increased risk for coronary heart disease. Another meta-analysis<sup>38</sup> reached the same conclusion.

Not only that, another study has shown that doubling or tripling saturated fat in the diet does not drive up total levels of saturated in the blood; however, increasing levels of carbohydrates does!<sup>39</sup>

And that's what I've been saying all along. Following are just a few examples of previously-maligned foods that are now the "good" guys in heart health:



- **Organic Pastured Eggs:** Eggs are a phenomenal source of protein, fat, and other nutrients, including choline, selenium, biotin, B vitamins, phosphorus, and the antioxidants lutein and zeaxanthin. They are so good for you that you can easily eat one dozen eggs per week.
- **Organic Pastured Raw Butter:** [Butter](#) is a veritable health food rich in vitamins E, K2, and A, along with minerals, iodine, antioxidants, and healthy fats. Butter also contains the anti-cancer agent conjugated linoleic acid (CLA) along with Wulzen factor, a hormone-like substance known to prevent arthritis and joint stiffness (only in raw butter).
- **Grass-Fed Beef:** Some of the benefits of grass-fed and grass-finished beef include high levels of [conjugated linoleic acid](#) (CLA) and other healthy fats. It also has a more balanced ratio of [omega-3](#) to omega-6 (compared to grain-fed beef) and is higher in beta-carotene, certain minerals, vitamin E, and B vitamins.
- **Liver:** Liver from grass-fed animals is rich in high quality amino acids fat, B vitamins and B12, CoQ10, minerals, and “fat-soluble activators” (vitamins A, D and K), important for mineral absorption.

In summary, there’s no telling how many people have been harmed by the decades of dangerous thinking that saturated fat is bad for your heart, especially when scientific evidence has shown that *a lack of healthy fat actually increases your cardiovascular risk*.<sup>40</sup>

## Cholesterol and Inflammation—What’s the Connection?

I would be remiss not to talk about inflammation and its connection to cholesterol because inflammation is terribly important as a factor contributing to heart disease. Inflammation has become a bit of a buzzword in the medical field because it has been linked to so many different diseases. And one of those diseases is heart disease ... the same heart disease that cholesterol is often blamed for.

What am I getting at?

Well, first consider the role of inflammation in your body. In many respects, it’s a good thing. As an immune response, it’s your body’s natural way of dealing with invaders it perceives as threats, whether they are antigens such as chemicals, toxins, drugs, or foreign substances, or an assault to your system, such as an infection or even a cut. The process of inflammation is what allows you to heal.



Using the cut as an example, specifically during inflammation:<sup>41</sup>

- Your blood vessels constrict to keep you from bleeding to death
- Your blood becomes thicker so it can clot
- Blood circulation will increase around the inflamed area in an attempt to strengthen it
- Your immune system sends cells and chemicals to fight viruses, bacteria, and other “bad guys” that could infect the area
- Cells multiply to repair the damage

Ultimately, the cut is healed and a protective scar may form over the area.

If your arteries are damaged, a very similar process occurs inside of your body, except that a “scar” in your artery is known as plaque.

This plaque, along with the thickening of your blood and constricting of your blood vessels that normally occur during the inflammatory process, can indeed increase your risk of high blood pressure and heart attacks.

Notice that cholesterol has yet to even enter the picture.

Cholesterol comes in because, in order to replace your damaged cells, it is necessary.

Remember that no cell can form without it.

So if you have a bunch of damaged cells that need to be replaced, your liver will be notified to make more cholesterol and release it into your bloodstream.

This is a deliberate process that takes place in order for your body to produce new, healthy cells.

It's also possible, and quite common, for damage to occur in your body on a regular basis. In this case, you will be in a dangerous state of chronic inflammation,<sup>42</sup> which can be caused by a laundry list of items, such as:

- Oxidized cholesterol (cholesterol that has gone rancid, such as that from overcooked, scrambled eggs)
- Other dietary mistakes such as eating lots of sugar and grains, foods cooked at high temperatures, and processed foods, many of which contain trans fats
- Lack of sleep or poor quality of sleep
- A sedentary lifestyle
- Smoking
- Emotional stress
- Persistent infections
- Obesity

Each of these things can be addressed so you can effectively and safely lower your cholesterol levels by eliminating inflammation. But before you begin treating it, you need to know how much inflammation your body is fighting. This can be done with a simple blood test, usually a C-reactive protein (CRP) blood test. CRP level is used as a marker of inflammation in your arteries. Generally speaking:<sup>43</sup>

- A CRP level under 1 milligram per liter of blood means you have a low risk for cardiovascular disease
- 1 to 3 milligrams means your risk is intermediate
- More than 3 milligrams is high risk

Even conventional medicine is warming up to the idea that chronic inflammation can trigger heart attacks.<sup>44</sup> But they stop short of seeing the big picture.

In the eyes of conventional medicine, it's only when they see increased cholesterol circulating in your bloodstream that they conclude that cholesterol—not the underlying damage to your arteries—is the cause of heart attacks.

Which brings me to my next point.

## The Insanity of Lowering Cholesterol

Sally Fallon Morell, president of the Weston A. Price Foundation, and Mary Enig, Ph.D, an expert in lipid biochemistry, were among the first beyond Dr. Kummerow to call high cholesterol “an invented disease, a ‘problem’ that emerged when health professionals learned how to measure cholesterol levels in the blood.”<sup>45</sup>



And this explanation is still spot on.

As I already said, if you have increased levels of cholesterol, it is at least in part because of increased inflammation in your body. The cholesterol is there to do a job: help your body heal and repair.

For years, conventional medicine missed the boat when they dangerously recommended lowering cholesterol to reduce your risk of heart attacks, when what was actually needed was to address whatever is causing the inflammation.

It was a long time coming, but in 2005, new research began to confirm not only that inflammation plays a key role in coronary artery disease (CAD), but that the traditional approach to “fixing” CAD (treating hypercholesterolemia and hypertension) needed to be re-evaluated.<sup>46</sup>

The problem was that modern medicine expected to eliminate CAD by the end of the 20th century with statins and blood pressure drugs—and when that didn't happen, researchers decided to figure out why.

What they found was that inflammation is increased in active plaques of patients with acute coronary symptoms—in other words, atherosclerosis *is an inflammatory disease* that can lead to heart disease.

Since then, follow-up data over the past 10 years have consistently shown an association between inflammation and development of atherosclerosis.<sup>47, 48, 49</sup>

By 2013, the evidence on inflammation's connection to heart disease was clear, with a meta-analysis on inflammatory cytokines (molecules that stimulate immune responses) and risk of coronary heart disease showing that even low-grade inflammation may play a role in causing coronary heart disease.<sup>50</sup>

What's more—almost in a bow to Dr. Kummerow himself—the newest research shows that it's none other than *oxidized cholesterol* that is the “driving force” behind not only hypercholesterolemia, but possibly the oxidative stress and inflammation that leads to Alzheimer's disease!<sup>51</sup>

## If Your Cholesterol Is Too Low...

So what are the dangers of too-low cholesterol?

Remember, every single one of your cells needs cholesterol to thrive—from your gut to your immune system to your brain. And that very precept is the reason why the National Heart, Lung, and Blood Institute held a conference in 1992 to review and discuss mortality rates and how they relate to total blood cholesterol levels.<sup>52</sup>

At that conference, officials were concerned about reports of a possible link between too-low cholesterol and certain cancers, respiratory/pulmonary diseases, digestive diseases, and mental health issues.

The convocation ended with officials admitting that they did see an association between some of these health issues and low cholesterol, but for whatever reason, they didn't see enough to actually declare that low cholesterol causes cellular dysfunction.

So instead of leading a call-to-arms on the dangers of too-low cholesterol right then and there, they decided to encourage continued, “systematic investigation” of the potential links between low cholesterol and certain diseases. What's most

interesting is that the total cholesterol they considered too low at this conference was 160 and below—a number that is very close to the “ideal” 180 that the ACA wants you to aim for today!

Since then, dozens of other studies have shown that:

- There is a reported increase in deaths due to suicide or violence in middle-aged subjects whose serum cholesterol concentrations have been lowered. Researchers theorize that low membrane cholesterol decreases serotonin receptors, which results in poorer suppression of aggressive behaviors.<sup>53</sup>
- A Dutch study found that men with chronically low cholesterol levels show a consistently higher risk of having depressive symptoms.<sup>54</sup> A similar study in a randomized controlled trial of over 29,000 men several years later had the same results.<sup>55</sup>
- Patients admitted to psychiatric wards in a Polish study showed a higher intensity of suicidal thoughts and tendencies in those with low total cholesterol.<sup>56</sup>
- Similar studies support a connection between low or lowered cholesterol levels and violent behavior.<sup>57</sup>
- A meta-analysis of over 41,000 patient records found that people who take statins to lower their cholesterol may have a higher risk of cancer.<sup>58</sup>

There is a correlation between low cholesterol and advanced heart failure and death—exactly the opposite of what lowering your cholesterol is supposed to achieve!<sup>59, 60</sup>

And what cholesterol level is too low? Brace yourself. As was true in that 1992 conference, most of the studies citing low cholesterol as a potential health risk use 160 and below as the too-low number. Plainly put, that means that the “ideal” 180 is dangerously close to the too-low number.

That’s why, in my opinion, ***anything under 200 is too low***. Yes, 200.

Now I know what you are thinking: “How can 200 be healthy when my doctor tells me my cholesterol needs to be *under* 180?” Well let me enlighten you about how

these cholesterol recommendations came to be and who is doing the recommending.

## Who Decided What Cholesterol Levels Are Healthy or Harmful?

In 2004, the U.S. government's National Cholesterol Education Program panel advised those at risk for heart disease to attempt to reduce their LDL cholesterol to specific, very low, levels.<sup>61</sup>

Before 2004, a 130-milligram LDL cholesterol level was considered healthy. The updated guidelines, however, recommended levels of less than 100, or even less than 70 for patients who were considered at very high risk for a heart attack.

*Keep in mind that these extremely low targets often require multiple cholesterol-lowering drugs to achieve—not just one drug, but multiple drugs.*

Fortunately, in 2006 a review in the *Annals of Internal Medicine*<sup>62</sup> found that there is insufficient evidence to support the target numbers outlined by the panel. The review went on to say that secondary researchers were simply unable to find research providing evidence that achieving a specific LDL target level was important in and of itself, and found that the studies attempting to do so suffered from major flaws.

Several of the scientists who helped develop the guidelines even admitted that the scientific evidence supporting the less-than-70 recommendation was not very strong.

So how did these new, excessively low cholesterol guidelines come about?

As it turns out, **eight of the nine doctors** on the panel that developed those guidelines **had been making money from the drug companies that manufacture statin cholesterol-lowering drugs.**<sup>63</sup>

The same drugs that the new guidelines suddenly created a huge new market for in the United States.

Coincidence? I think not.

Now, despite the finding that there is absolutely NO evidence to show that lowering your LDL cholesterol to 100 or below is good for you, what do you think the American Heart Association STILL recommends?

Lowering your LDL cholesterol levels to less than 100.<sup>64</sup>

And of course, the standard recommendation to get to that level almost always includes one or more cholesterol-lowering drugs.

What's most interesting is that two years before the study came out, *The New York Times* actually criticized the panel for its many apparent conflicts of interest, pointing out that 12 of the original 16 panel members had financial ties to the pharmaceutical industry.<sup>65</sup>

Yet, the guidelines were published and for years many people were prescribed cholesterol-lowering drugs based on flawed research by people who received payments from companies making these drugs.

## Cholesterol Drugs Are the No. 1 Most-Prescribed Drug

If you are concerned about your cholesterol levels, taking a drug should be your absolute last resort.

As I already mentioned, you can lower your cholesterol by simply addressing any inflammation problems you may have, and correcting them. Always—always—statins should be the last resort. And when I say last resort, I'm saying the odds are very high that you don't need *any* drugs *at all* to lower your cholesterol.

When I was running my clinic, I found that only four or five of the more than 20,000 who visited there truly needed these drugs, and then it was only because they had genetic challenges that required it.

Contrast this to what is going on in the general population. Today nearly 70 percent of all Americans are taking at least one prescription drug for a chronic or other medical condition<sup>66</sup> and, according to the research firm IMS, the statin drug Crestor is the No. 1 most-prescribed drug of all drugs in the country, as of September 2014.<sup>67</sup>

Truly, the numbers are staggering: Although global spending on lipid-lowering drugs is expected to go down from \$37 billion a year in 2010 to “only” \$34 to \$29 billion a year in 2015 due to patent expirations,<sup>68</sup> the market is practically guaranteed to rise because of the new prescribing guidelines.

In fact, Barron’s reported gleefully after the guidelines were announced that experts were predicting that “the number of Americans who qualify for statin therapy could double to more than 30 million!”<sup>69</sup>

## What Are the Prescription Drugs Designed to Lower Cholesterol?

There are six classes of drugs designed to lower cholesterol in your blood. They include:

1. **Statins**, which work in the liver to inhibit an enzyme that’s needed to manufacture cholesterol. They also lower LDLs and triglycerides while slightly increasing HDLs. Statins are a group of drugs called HMG CoA reductase inhibitors, which reduce LDLs and triglycerides and increase HDLs.<sup>70</sup>
2. **Niacin** (nicotinic acid), which is a B-complex vitamin that’s necessary for nervous and digestive system function. Known as B3, it’s given at high doses to raise HDLs by as much as 30 percent and to lower LDLs and triglycerides.<sup>71</sup>
3. **Bile-acid resins**, which work in the intestines by inhibiting the reabsorption of bile acids. Known as sequestrants, they are the oldest and safest of lipid-lowering drugs, but less potent than the others. They are sometimes used if you don’t do well with statins.<sup>72</sup>
4. **Fibrates/Fenofibrates**, which reduce triglycerides and fatty acids by decreasing production and circulation of VLDL cholesterol in the blood. They also may decrease LDLs slightly.<sup>73</sup>
5. **Cholesterol Absorption Inhibitors (brand name Zetia)**, inhibit absorption of biliary and dietary cholesterol from the small intestine without affecting absorption of fat-soluble vitamins, triglycerides or bile acids. They also reduce LDLs by about 15-20 percent and increase HDLs. They’re often

prescribed to patients who can't tolerate statins.<sup>74</sup> There is also a combination drug called Vytorin that includes Zetia and the statin drug Zocor, which lowers cholesterol and LDL levels.

6. **PCSK9 Inhibitors** is a new class of cholesterol absorption inhibitors, which the FDA agreed to review in 2015 prior to a targeted August-September 2015 market release. In clinical trials, they lowered LDLs by about 60 percent. PCSK9 is a protein that works with LDL receptors that regulate LDL in the liver and release LDL cholesterol into the blood.

The inhibitors work by blocking that protein and thus having less LDL to circulate in the blood. Researchers reported that these drugs will be recommended to patients who either don't respond to other lipid-lowering drugs, or who can't tolerate some of the side effects of the other drugs, such as severe muscle pain.<sup>75</sup>

The main goal of all of these drugs is to prevent or control coronary heart disease and, ultimately, prevent a heart attack. I'll talk about how well that really works in a different section below. But first, let's look at some of the known side effects for these drugs.

## Cholesterol-Lowering Drugs Have Many Side Effects and Dangers

The newest class, **PCSK9 inhibitors**, has already reported problems with “neurocognitive effects” in the clinical trials, with some patients experiencing confusion and trouble paying attention, according to reports released in April 2015. Since the studies have been so short-term, researchers stressed that longer-term studies would be needed to be sure of the risks vs. the benefits, and to give more insight on the safety of PCSK9.<sup>76</sup>

While this drug may be approved for sale as early as mid-2015, four of the clinical trials on this drug won't even be completed until 2018—a concern that had at least one researcher admitting that “errors may be present” that they “won't be aware of until the larger trials are completed.”<sup>77</sup> Now why would anybody want to start on a drug when they don't even know what all the side effects are?



**Cholesterol absorption inhibitors**, commonly sold under the brand name Zetia, have been associated with severe muscle problems, particularly when used in the combination form (Vytorin). Untreated, these problems can cause kidney damage. Other reported side effects include rash, joint pain, liver problems, stomach pain, inflammation of the pancreas, nausea, dizziness, tingling, headaches, and gallbladder inflammation as well as gallstones.<sup>78</sup>

**Bile acid resins/sequestrants** are associated with constipation, stomach pain, nausea, heartburn, indigestion, and gas. Also, according to WebMD, they have not been proved to lower your risk of either heart attack or stroke.<sup>79</sup>

**Fibrates/fenofibrates** can irritate your gall bladder and trigger gallstones and liver problems, including abnormal liver tests for AST and ALT. They also have been associated with headaches, muscle pain, kidney problems, and in rare cases kidney failure, and nausea. Flu-like symptoms and dark urine and/or yellowing eyes and skin have also been reported.<sup>80</sup>

**High-dose, extended-release niacin** was found to have serious issues when a study of 25,000 patients showed that it was associated with a *32 percent increase in diabetes*, as well as gastrointestinal, musculoskeletal, and skin-related serious adverse events.

Additionally, researchers reported that high-dose niacin is associated with “highly significant excesses” of serious bleeding, as well as a possible 9 percent increased risk of dying from any risk. While it did result in improved cholesterol levels, it didn’t decrease the rate of heart attacks, strokes, or deaths from heart disease.<sup>81</sup> So, again: why would anybody want to take this cholesterol-lowering drug if it doesn’t do anything to prevent heart disease or death?

In case you’re not convinced, other common side effects of niacin include: itching, flushing, excessive warmth or tingling under the skin; dizziness; sweating or chills; nausea and other stomach problems, burping or diarrhea; insomnia; rash.<sup>82</sup>

It also can interfere with other drugs you may be taking, such as anti-seizure medications, antibiotics (tetracycline), anticoagulants and nicotine patches, other cholesterol-lowering drugs such as statins, diabetes drugs and blood pressure medications.<sup>83</sup>

## Statins: In a Category All Their Own When It Comes to Side Effects

Statins are in a category all their own when it comes to unpleasant side effects and dangers. These drugs came roaring into use in 1987 with pre-market approval of lovastatin. Since then, many other statins or variations of statins have been introduced, including simvastatin (Zocor), pravastatin, fluvastatin, atorvastatin (Lipitor), rosuvastatin (Crestor) and pitavastatin, all of them created with the goal of lowering your risk of heart attack and, thereby, lengthening your life.<sup>84</sup>

It all sounds good (we’ll get to that later) but what are the possible side effects of these drugs? A recent analysis of statins’ real risks versus benefits by two independent researchers—meaning they are not connected with creating or marketing statins—<sup>85</sup> indicates that **the benefits have been highly exaggerated and the risks severely downplayed.**

*“We have described the deceptive approach statin advocates have deployed to create the appearance that cholesterol reduction results in an*

*impressive reduction in cardiovascular disease outcomes through their use of a statistical tool called relative risk reduction (RRR), a method which amplifies the trivial beneficial effects of statins,” the study authors wrote.*

*“We have also described how the directors of the clinical trials have succeeded in minimizing the significance of the numerous adverse effects of statin treatment.”*

The researchers, Dr. David M. Diamond, professor of psychology, molecular pharmacology, and physiology at the University of South Florida, and Dr. Uffe Ravnskov, an independent health research and expert in cholesterol and cardiovascular disease, later added in a press release.<sup>86</sup>

*“The adverse effects suffered by people taking statins are more common than reported in the media and at medical conferences. ...“Increased rates of cancer, cataracts, diabetes, cognitive impairments and musculoskeletal disorders more than offset the modest cardiovascular benefits of statin treatment.”*

These inflated claims and minimized side effects have influenced prescribing practices, Diamond and Ravnskov said: *“There is a great appeal to the public to take a pill that offers the promise of a longer life and to live heart attack free. The reality, however, is that statins actually produce only small beneficial effects on cardiovascular outcomes, and their adverse effects are far more substantial than is generally known.”*

## What Are Some of the Most Dangerous Side Effects from Statins?

- For starters, statin drugs [deplete your body of Coenzyme Q10](#) (CoQ10), a compound the body makes and uses for cell growth. Studies show that CoQ10 is not only beneficial to heart health and muscle function, but also helps the immune system. It works in the heart, liver, kidney, and pancreas and is often used to treat heart and blood vessel conditions as well as diabetes, cancer, and other chronic diseases.<sup>87</sup>

Because doctors rarely inform people of this risk or advise them to take a CoQ10 supplement, this depletion leads to fatigue, muscle weakness, soreness, and eventually heart failure.

- More recently, a long-term study that followed nearly 26,000 patients showed that statins are linked to ***an 87 percent increased chance of new-onset diabetes, diabetic complications, and overweight/obesity!***<sup>88, 89</sup>

The diabetes link has been a point of contention for the past few years, with initial reports of as much as a 46 percent increased risk of diabetes,<sup>90</sup> but this is the most astounding study yet—and an 87 percent risk is nothing less than shocking.

What's crazy is that, even though decision makers admit **they've known for years** that statins can raise your risk of getting diabetes, they still maintain that the benefits of statins outweigh the risk of diabetes—a side effect that means you'll eventually be on even more drugs, including a possibility of insulin injections!<sup>91</sup>

- Mitochondria damage can also occur with statins because they are so toxic they can damage the centers of your cells—the mitochondria. They impair muscle mitochondria function, disrupt ATP production (adenosine triphosphate, the energy molecules of your body) and alter intracellular signaling proteins.<sup>92, 93</sup>
- Muscle pain and weakness, a condition called rhabdomyolysis, is actually the most common side effect of statin drugs, which is thought to occur because statins activate the atrogen-1 gene, which plays a key role in muscle atrophy.<sup>94</sup>

Aside from the fact that muscle pain and weakness may be an indication that your body tissues are actually breaking down—a condition that can destroy your kidney function—it's important to remember that your heart is a muscle too—and that means that the very drugs that are supposed to be helping your heart are also damaging it.

This paradox has become so apparent that some researchers have recently said that, contrary to the current thinking that statins decrease atherosclerosis, they believe that they may actually CAUSE coronary artery calcification, resulting in impaired heart muscle function and depletion of CoQ10 and K2.<sup>95</sup>

If that's not enough to make you question why this drug is even on the market, here are other adverse events that statins have been linked to:

- An increased risk of polyneuropathy (nerve damage that causes pain in the hands and feet and trouble walking)<sup>96</sup>
- Dizziness/vertigo<sup>97</sup>
- Cataracts<sup>98, 99</sup>
- [Cognitive impairment](#), including memory loss<sup>100</sup>
- A potential increased risk of cancer<sup>101</sup>
- Bell's Palsy<sup>102</sup>
- Decreased function of the immune system<sup>103</sup>
- Depression<sup>104</sup>
- Increased risk of Lou Gehrig's disease (ALS)<sup>105</sup>
- Liver problems, including a potential increase in liver enzymes (so people taking statins must be regularly monitored for normal liver function)



The memory loss is particularly concerning, and has even been reported by Pfizer, which makes the statin Lipitor. The company advises patients that: *“certain cognitive effects, specifically memory loss and confusion, have been reported. The FDA notes that reports relating to cognitive effects have generally not been serious and that symptoms went away once the drug was no longer being taken.”*<sup>106</sup>

I guess it's a relief to know that if you stop taking your statins you might get your memory back. But why would you want to risk that side effect at all?

## Are Cholesterol Drugs Even Effective?

With all of these risks, the drugs had better be effective, right? [Well, even this is questionable.](#)

Have you ever heard of the statistic known as NNT, or number needed to treat? I didn't think so. In fact, most doctors haven't either. And herein lies the problem.

NNT answers the question: How many people have to take a particular drug to avoid one incidence of a medical issue (such as a heart attack)?

For example, if a drug had an NNT of 50 for heart attacks, then 50 people have to take the drug in order to prevent one heart attack.

Easy enough, right?

Well, drug companies would rather that you not focus on NNT, because when you do, you get an entirely different picture of statins as a “miracle” drug.

Take, for instance, Pfizer’s Lipitor, which has been prescribed to more than 29 million people in the US. After this drug was brought to market, it began taking ads out in newspapers telling people that Lipitor reduces heart attacks by 36 percent. That sounds fairly effective.

But *BusinessWeek* magazine actually did an excellent story on this in 2008, when they decided to investigate statins’ true effectiveness.<sup>107</sup> And they found the REAL numbers right on Pfizer’s own newspaper ad for Lipitor.

Upon first glance, the ad boasted that Lipitor reduces heart attacks by 36 percent. But there was an asterisk beside the statement. And when you followed the asterisk, you found the following in much smaller type:

*“That means in a large clinical study, 3% of patients taking a sugar pill or placebo had a heart attack compared to 2% of patients taking Lipitor.”*

What this means is that for every 100 people who took the drug over 3.3 years, three people on placebos, and two people on Lipitor, had heart attacks. **That means that taking Lipitor resulted in just one fewer heart attack per 100 people.**

The NNT, in this case, is 100. One hundred people have to take Lipitor for more than three years to prevent one heart attack. And the other 99 people, well, they’ve just dished out hundreds of dollars and increased their risk of a multitude of side effects for nothing.

So you can see how the true effectiveness of cholesterol drugs like Lipitor is hidden behind a smokescreen.

Or in some cases, not hidden at all.

## Zetia and Vytorin: No Medical Benefits

Early in 2008, it came out that Zetia, which works by inhibiting absorption of cholesterol from your intestines, and Vytorin, which is a combination of Zetia and Zocor (a statin drug), do not work.

This was discovered AFTER the drugs acquired close to 20 percent of the US market for cholesterol-lowering drugs in the United States, bringing in close to \$4 billion in 2007.<sup>108</sup>

It was only after the results of a trial by the drugs' makers, Merck and Schering-Plough, were released that this was found out. Never mind that the trial was completed in April 2006, and results were not released until January 2008.

And it's no wonder the drug companies wanted to hide these results:

- While Zetia did lower cholesterol by 15 percent to 20 percent, trials did not show that it reduces heart attacks or strokes, or that it reduces plaques in arteries that can lead to heart problems.
- The trial by the drugs' makers, which studied whether Zetia could reduce the growth of plaques, actually found that *plaques grew nearly twice as fast* in patients taking Zetia along with Zocor (Vytorin) than in those taking Zocor alone.<sup>109</sup>

Five years later, in 2013, Merck agreed to pay \$688 million to resolve a class-action suit claiming it had defrauded its shareholders by withholding adverse results of its clinical trials on Vytorin and Zetia.<sup>110</sup>

Today Merck has launched a new promotion of Vytorin with the announcement that a brand-new study has shown that this drug “significantly” reduces cardiovascular events, implying that this drug's wonders far outweigh any questionable effects it had in the past.<sup>111</sup>

But given the history of this drug, does it really make sense for you to even consider taking statins made by any company? Read on before you decide.

## The Insanity of Claiming Statins Are Wonderful No Matter How Dangerous They Are

Besides the major side effects that statins can have, they also have shown to negatively interact with other drugs you may be taking. For example, an analysis of patients taking Rosuvastatin, pravastatin, or fluvastatin with the antibiotic clarithromycin showed a 65 percent increased risk of hospitalization for acute kidney injury, a more than two-fold increased risk for hyperkalemia (elevated potassium), and a 43 percent increased risk for all-cause mortality.<sup>112</sup>



Gemfibrozil, a drug similar to fenofibrate, also interacts with simvastatin, increasing your risk of rhabdomyolysis, which can destroy muscle fibers and lead to complications such as kidney failure.<sup>113, 114</sup>

For more information on drug interactions with statins, you can go to [Drugs.com](https://www.drugs.com) and plug in the name of the drug you want to know more about. But the point is it's insane to continue recommending a drug that has so many potential risk with so few—if any—proven benefits.

What's really silly is that, as more and more negative information on statins has come out in the past couple years, a never-ending flurry of press releases announcing newly-discovered virtues and possibly new uses for statins—such as Merck's announcement on Vytorin—have literally flooded the news.

In fact there have been so many “new uses” for statins announced recently that I started saving some of these statins-are-wonderful stories. And now, so many articles have come out claiming that statins cure everything from asthma<sup>115</sup> to hantavirus<sup>116</sup> to even reversing learning disabilities<sup>117</sup> that it makes me wonder why this “wonder” drug isn't automatically sold as a daily multivitamin. For example, recent stories claim that:

- Statins keep you from dying from colon cancer<sup>118</sup>
- Statins cure the cough from lung disease<sup>119</sup>
- Statins prevent breast cancer<sup>120</sup>

- Statins treat breast cancer<sup>121</sup>
- Statins prevent Alzheimer's (if they don't give you dementia as a side effect)<sup>122</sup>
- Statins can save the world from bird flu<sup>123</sup>
- Statins can cure MS<sup>124</sup>
- Statins might stop uterine fibroids<sup>125</sup>
- Statins reduce the risk of cataracts (except when they don't)<sup>126</sup>

And the best one yet: Instead of causing diabetes, statins suddenly and miraculously now prevent both common and serious diabetic complications.<sup>127</sup>

This is just the short list of fantastical medical miracles that have been attributed to statins in just a short period of time. The propaganda is so prolific that it's simply not possible to post it all here, but I think you get the idea. If all these statins-are-wonderful reports are true, then surely, there would be absolutely nobody sick with anything if they just took this drug.

If you're like me, though, you're probably thinking that these are some pretty desperate attempts to find a new use for a bad drug.

## How to Improve Your Health, and Lower Your Risk of Heart Disease, Naturally

There is a major misconception that you must avoid foods like eggs and saturated fats to protect your heart. But as we already learned, that's simply not true.

And it's so not true that recently the Institute of Science in Society wrote a series of articles lambasting the dishonesty that's been perpetrated on the world through what the Society calls "a scandalous history of scientists for hire, revolving door between food industry and regulators, not-for-profit NGOs hungry for funding plain bad science, and fake TV commercials."<sup>128</sup>

Yes, the Society said that, after reviewing what they call "compelling evidence that saturated fat does not cause coronary disease by elevating serum cholesterol or any other mechanism." After reading their articles, what else is there left to say, other than to be firm in saying that you can ignore all the erroneous information and start on a path to good health that includes healthy dietary fats.



To that end, below are some of the lifestyle and dietary changes that you can make that will help you keep your cholesterol levels and your heart healthy:

1. Make sure you're getting plenty of high-quality, animal-based omega-3 fats.<sup>129</sup> These fats can be found naturally in seafood and fish such as salmon, krill, tuna and halibut, as well as in algae, a few other plants, and nut oils. If you want to get your omega-3s through a supplement, I prefer those from krill oil.
2. Reduce, with the plan of eliminating, grains and sugars in your daily diet, especially high fructose corn syrup (HFCS). A new study shows that added sugar not only increases your risk of cardiovascular disease mortality, but that HFCS, especially, can cause your cholesterol and triglycerides to rise after only two weeks of modest HFCS consumption.<sup>130</sup>
3. Eliminate processed, packaged, and canned foods from your diet. This will easily help you eliminate trans fats; plus, if you totally avoid deep-fried

foods, you will be on your way to an inflammation-free, heart-healthy body.

4. Eat a good portion of your food raw. Make sure to monitor your vitamin B12 levels and supplement if necessary, since a long-term, strictly raw food diet can sometimes deplete vitamin B12—a necessary element to maintaining good HDL levels<sup>131</sup> Also, avoid foods of any kind that have the additive carrageenan in them. Carrageenan has been shown to raise your risk of both diabetes and hyperlipidemia.<sup>132</sup>
5. Eat healthy, preferably raw, foods and fats that correspond to your [nutritional type](#).

This includes:

- ✓ Extra virgin olive oil (about 2 tablespoons per day, drizzled over raw vegetables or as a baste for meats<sup>133, 134</sup>)
  - ✓ Coconut and virgin coconut oil<sup>135</sup>
  - ✓ Organic raw dairy products (including butter, cream, sour cream, cheese, etc.)
  - ✓ Avocados—just one a day can have positive effects<sup>136</sup>
  - ✓ Raw nuts such as walnuts, almonds, hazelnuts, peanuts, pecans, pistachios,<sup>137</sup> and pine nuts<sup>138</sup>
  - ✓ Seeds and/or seed oils such as rapeseed and grapeseed, and sunflower seeds, although they don't provide as much protection<sup>139</sup>
  - ✓ Cheese in modest amounts<sup>140</sup>
  - ✓ Eggs (lightly cooked with yolks intact or raw)<sup>141</sup>
  - ✓ Organic, grass-fed meats<sup>142, 143</sup>
6. Get the right amount of exercise, and make sure you incorporate [high-intensity interval exercises](#), which optimize your [human growth hormone](#) (HGH) production. When you exercise, you increase your circulation and the blood flow throughout your body.

The components of your immune system are also better circulated, which means your immune system has a better chance of fighting an illness before it has the opportunity to spread. Plus, new research following nearly 12,000 men ages 20 to 90 shows that middle-age dyslipidemia can actually be delayed 15 years or more by simply keeping active and being physically fit.<sup>144</sup>

7. Don't smoke at all, or if you do smoke, quit: recent research shows that quitting will raise your HDLs almost immediately.<sup>145</sup> Also avoid second-hand smoke.
8. Don't drink excessive amounts of alcohol. While multiple studies have shown that moderate consumption of wine, beer and spirits can have a positive effect on your health,<sup>146, 147, 148</sup> they also show that overindulgence—more than two drinks/day for men and one for women—can be very detrimental.<sup>149</sup>
9. Address your emotional challenges. I particularly love the [Emotional Freedom Technique](#) (EFT) for stress management.

You also should work at [optimizing your vitamin D levels](#), ideally through appropriate sun exposure as this will allow your body to create [vitamin D sulfate](#)—another factor that may play a crucial role in preventing formation of arterial plaque.

This is especially important for both children and adults, since studies show that low levels of vitamin D3 in childhood are associated with subclinical atherosclerosis 25 years later in adulthood.<sup>150</sup>

So there you have it; the reasons why high cholesterol is a worry that many of you simply do not need to have, along with a simple plan to optimize your cholesterol levels so that you can become, and stay, heart-healthy.

For the majority of you reading this right now, there's no reason to risk your health with cholesterol-lowering drugs. With the plan I've just outlined, you'll achieve the cholesterol levels you were meant to have, along with the very welcome "side effects" of increased energy, mood and mental clarity.

Too good to be true?

Hardly.

For the vast majority of people, making a few lifestyle changes causes healthy cholesterol levels to naturally occur.

If someone you love is currently taking cholesterol-lowering drugs, I urge you to share this information with them as well, and take advantage of the thousands of free pages of information on [www.Mercola.com](http://www.Mercola.com).

As always, your health really is in your hands. Now it's up to you to take control – and shape it into something great.

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