



Deadly cholesterol myths—EXPOSED!

And the permanent, drug-free solution for keeping your levels healthy

Of all the potentially life threatening illnesses, heart disease may be the one surrounded by the most confusion and misdirection. And no aspect is more rife with misunderstanding than cholesterol.

No matter how much headway we seem to make in uncovering the real threats to your heart, cholesterol seems forever etched in the public perception as the No.1 risk factor.

And, unfortunately, that's just one of the myths associated with cholesterol. But if you're truly going to protect yourself from cardiovascular disease, you need to know the whole truth—and nothing but the truth—about this misunderstood and much-maligned substance. Including why following the mainstream cholesterol guidelines may put you in danger.

But let's start by exposing a few of the most predominant myths about cholesterol.

MYTH #1: Cholesterol is a harmful substance

The human body needs cholesterol for normal metabolism, hormonal function, and other physiologic processes. In fact, when your body doesn't have enough cholesterol it makes more.

Chemically, cholesterol is a fat. But unlike other fats, it supplies no calories to the body. Instead,

it's an essential building block for molecules, cells, and tissues. It forms a component of all cellular membranes throughout the body—and is particularly critical in brain and nerve cells.

Cholesterol is also an essential component of many hormones, including estrogens, testosterone, and cortisone, the adrenal cortical hormone.

Skin cells also convert cholesterol to vitamin D in the presence of sunlight. And vitamin D is a critical nutrient (which also functions like a hormone in many ways).

MYTH #2: High cholesterol in the diet raises your risk of heart disease

Heart disease is only partially related to cholesterol levels in the blood. And researchers have known this since the 1950's and 1960's.

Actually, University of Pennsylvania scientists studying primates at the Philadelphia Zoo initially made this discovery. They found that changes in cholesterol in the diet did **not** explain changes in blood cholesterol levels in the animals. And, further, changes in blood cholesterol did **not** explain changes in heart disease!

So, starting more than 50 years ago, there were clues that dietary cholesterol is at least two steps

removed from actually developing heart disease.

And, when it comes to heart disease, there are two silent killers—high blood pressure and stress—that are much more dangerous than cholesterol.

MYTH #3: You should keep your cholesterol below the recommended "normal" level of 200

Of course, 200 is considered normal today. But who knows what "normal" will be tomorrow?

A "normal" blood cholesterol level for a given sex and age

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group in the U.S. is really just a statistical average for a population. One in which half (or more) of all individuals die of heart disease anyway.

Still, NIH reviews continue to revise the recommended levels of cholesterol further and further downward. And the depths they're reaching can really no longer be considered "normal" by any standard.

Myth #4: Eating foods that contain cholesterol will raise your cholesterol levels

Even before these ridiculous NIH standards, cholesterol-containing foods have long been the villains of the supermarket and restaurant menu.

People are literally afraid to eat some fantastically nutritious (not to mention delicious) foods, for fear that their order of poached eggs or shrimp cocktail will send their cholesterol levels through the café roof.

And the mainstream dietary recommendations only encourage that mindset.

The metabolic reality is that cholesterol in the diet is **not** related to cholesterol in the blood. But fat in the diet is.

Any cholesterol that is present in foods (such as shellfish or eggs) is chemically broken down during digestion. The body manufactures its own cholesterol from fats that are consumed in the diet.

In fact, the liver actually uses cholesterol to form bile acids. Bile acids facilitate the digestion of dietary fats by emulsifying them. Which also helps the body absorb fat soluble vitamins like vitamin A, D, and E, from foods.

This whole misunderstanding was actually uncovered by the early 1980s at Harvard University. But obviously, even 30 years later, there's still a great

The real difference between "good" and "bad"

You've undoubtedly heard the terms "good" and "bad" cholesterol. But as widely accepted as these terms have become, not many people really understand why LDL and HDL are labeled as such. Or how these types of cholesterol behave in the body.

In order to be transportable in the blood, cholesterol is bound to proteins. These proteins are called lipoproteins (the "L" at the end of both LDL and HDL).

High-density lipoproteins (HDL) are made in the liver to scavenge excess cholesterol from the blood. Then they bring it back to the liver where it is broken down into bile acids, released into the intestines, used in digestion, and eliminated from the body. HDL is therefore, the "good" cholesterol.

Low-density lipoprotein (LDL) carries cholesterol from the liver to the heart and other tissues. One of its specific jobs along the way is to help repair damaged blood vessels and arteries by "patching" them with deposits of cholesterol. Unfortunately, this action has given LDL a bad name—literally.

But it's important to remember that cholesterol is there to repair damage caused by other factors (high blood pressure, for example). It's not causing the damage. So managing the underlying conditions in the first place is a much more effective heart-protective strategy than trying to lower cholesterol after the fact.

deal of confusion. So, allow me to set the record straight, once and for all:

It's too much fat in the diet (*not* cholesterol) that leads to higher cholesterol levels in the blood.

But that doesn't mean you need to banish fat from your diet, either. Your body needs some fat. (They're called "essential" fatty acids for a reason). Unfortunately, these days, most people are getting too much of a good thing. Which explains why there has been such a dramatic increase in the health concerns associated with excess fat.

Since fats are primarily associated with animal products, early humans probably had a difficult time getting *enough* fat for a healthy metabolism.

Early humans hunted for and ate meat when they could. But wild game has only 4-6% fat compared to 40-60% in modern domesticated animals. So today, we have the opposite problem from our prehistoric ancestors.

There have been many changes in the American diet over the past century as we moved from family farms to massive agribusiness. Increased fat consumption is one of them. So is a dramatic decrease in fresh fruit and vegetable intake—down from 40% to only 5% of the diet (more on this later in the issue). And along with both of these changes we also find increased heart disease rates.

Of course, pinning down the exact cause-and-effect nature of these dietary shifts in relation to heart disease is easier said than done (as hard as the scientific statisticians try). But one thing is certain: Improving your diet certainly won't hurt.

However, the answer isn't cutting any one food group or substance out entirely. Rather, a truly balanced diet is key. Unfortunately, you may not find the right balance for you in any government-created "pyramid" or "plate."

Actually, you can learn more about eating a **real** balanced diet by observing how large animals survive in nature. For more details on this approach, see my report *The Top of the Food Chain Cure for Obesity*, which you received when you subscribed to *Insiders' Cures*.

The best way to lower your cholesterol—permanently

While lowering fat consumption may lower cholesterol levels, it's only a partial solution. After all, achieving a healthy cholesterol level is much more important than simply driving it lower and lower. And the best way to do that is to lose weight—and keep it off.

While I was working as a research investigator at the NIH, I helped analyze the largest study ever done in the U.S. on health and nutrition (the U.S. Health and Nutrition Examination Survey, or NHANES). And the research clearly showed that lighter body weight and lower body fat are associated with lower cholesterol levels.

In individual patients, I observed decreases in cholesterol levels in women following 14 weeks of a controlled diet and weight loss. But it also depended on what the cholesterol levels were at the outset.

Women who began with average cholesterol levels showed modest declines in cholesterol. However, women who began with high cholesterol showed large declines after losing 20 lbs over the course of 12-14 weeks.

The bottom line here? Be careful of attempts to keep reducing cholesterol forever lower. It is one thing to lower high cholesterol to "normal" levels. But it's another thing to try to reduce levels that are already "normal." Our bodies may be trying to tell us something. **TC**

Why cholesterol is especially important for women

Ask 10 women what their biggest health fear is, and 9 of them will likely answer "breast cancer." But heart disease is actually the leading cause of death in both sexes. And this risk becomes especially pronounced for women after menopause.

Estrogen seems to protect against heart disease. And when estrogen levels decrease during menopause, heart disease risk increases. Researchers think this may be one reason women live longer than men. Estrogen delays their getting heart disease until they become post-menopausal.

It may also partially explain lower rates of heart disease in men who drink. Alcohol interferes with metabolizing the small amounts of estrogen that normally appear in men. So their estrogen levels increase. Which leads to less heart disease in men who drink.

It was easy for me to understand this paradox long ago as a result of the "mind-body" benefits of alcohol for reducing stress. But the metabolic effects of moderate alcohol on estrogen production shouldn't be overlooked.

Estrogen is clearly heart protective in men *and* women.

And since cholesterol is a building block of estrogen, we should be thinking twice about interfering with cholesterol metabolism.

The dark secret lurking behind the “heroes” of the vitamin world

These days in the supplement industry, antioxidants reign supreme. They've been heralded in the media for their disease-fighting abilities. Which has sent droves of former skeptics to the nearest GNC to stock up on these so-called heroes of the nutritional world.

But, despite the impression we've been given, antioxidants aren't necessarily the “be all, end all” of good health and disease prevention.

In fact, in some cases, they may cause more harm than good.

It all comes down to chemistry—and context. Two things modern medicine never seems to consider.

Chemistry 101

I was a chemistry major in college. But I was in high school when I learned one simple acronym that explains how so-called “antioxidants” really work.

The acronym I'm referring to is: *LEO goes GER*.

If you haven't heard it before, it stands for this:

Loss of Electrons = Oxidation (LEO)
Gain of Electrons = Reduction (GER)

But what, exactly, does this clever saying mean? And, more importantly, how does it relate to the antioxidants you hear so much about in health and medical news? In two very important ways:

- 1.) Any oxidizing agent can become an anti-oxidant by stealing an electron from another molecule.
- 2.) Any *anti*-oxidant can become an oxidizing agent when it gives up an electron to another molecule.

Which means there is no such

thing as a “universal” antioxidant.

No nutrient—no matter how hyped by the media or acclaimed in studies—acts as an antioxidant all of the time. It all depends on the chemical and biochemical environment as to whether a nutrient acts as an anti-oxidant or an oxidant.

Supposedly chemistry is a requirement for getting into medical school. So I'm not sure why so many medical scientists, physicians, and so-called nutritionists don't seem to remember these basic principles.

While it isn't specifically an antioxidant, iron is a perfect example of the dangers of a “beneficial” nutrient being turned loose in the body in excess amounts and dangerous chemical forms. When there is too much floating around, it acts like an oxidizing agent, taking electrons from molecules, and creating “free radicals.” Those free radicals damage tissues and contribute to the creation of cancer cells.

If the folks at the NIH or CDC could remember their high school or college chemistry, they wouldn't have been so surprised and dismayed when Nobel laureate Baruch Blumberg and I proved that too much iron can cause cancer (for more on this, see my report, *Classified Cancer Answers* that you received when you subscribed to *Insiders' Cures*).

Quality, not just quantity

In medicine today we are obsessed with measuring the **quantity** of a biochemical, electrolyte, metabolite, or nutrient. And when it comes to antioxidants, there are a couple of specific measurements frequently used. Several years ago, scientists

relied on Total Antioxidant Capacity (TAC). But, more recently, another measure, known as Oxygen Radical Absorbance Capacity (ORAC) has grown more popular.

And the higher a nutrient ranks on either of these scales, the better it is for us. Or so we've been told. (But now even the ORAC level is being questioned in terms of its usefulness. See the sidebar, *Beware ORAC value claims* on page 6.)

But both of these measurements miss a critical factor—quality.

And in terms of antioxidants, quantity and quality should always be considered together.

This is a critical issue in assessing the real role of antioxidants. A chemical that we think of as an

Ancient wisdom overlooked by modern technology

In the 10th century, the ancient physician Avicenna (or Ibn Sinna, the leading physician in the western world for 500 years) wrote extensively about the importance of not just quantity but the quality of the what he called “humors.” Which, in our modern biology are called blood constituents and metabolites.

Unfortunately, the importance of the quality of metabolites and nutrients as a factor in health is something scientists rarely pay attention to when they're measuring the quantity of a molecule.

effect of grains, it's obvious that fiber itself isn't the answer.

But why waste time, money, and resources debating which nutrient (or even which food) is most crucial?

A better, simpler way to get the cancer protection you need


Fruits and vegetables contain a wide variety of substances besides vitamins and minerals that have anticancer properties. Phenols, isothiocyanates, flavonoids, indoles, lignans, etc. have all

proven their anti-cancer potential in studies.

But it isn't really possible to provide required dosage estimates for these "non-nutrient" substances. Government food tables certainly don't provide this information. In fact, most of the relevant analyses needed to determine these values haven't even been done. Besides, it's likely that whole classes of beneficial constituents of fruits and vegetables still remain to be identified.

So rather than grasping at straws, waiting for scientists to separate every nutrient in a particular vegetable or fruit, and test it for its potential effects, why not make it easy on yourself? Simply eat more of them in general.

Fruits and vegetables are "purpose-fitted" packages of required nutrients for humans.

After all, humans evolved in the presence of plants, not just nutrients. And people eat foods, not nutrients. 

NEWS BRIEF

Meditation still misunderstood—even when the results are good!

There has been plenty of research over the years to support the effects of mind-body techniques as real and not just imaginary. Now, a new article claims that high-tech brain studies are demonstrating that meditation brings about positive structural changes in the brain itself. But, once again, we need to be careful about modern research—and the people who write about it.

The author of this particular article reported that "*Integrative Body-Mind Training (IBMT)*, a type of Chinese mindfulness meditation, may induce positive structural changes in the brain's white matter."

First of all, I am not sure how anything called "Integrative" (a mongrel term invented in the past 10 years) could be any type of Chinese medicine or meditation (which has been around for 2,000 years).

Second, the combining of "Chinese" and "Mindful Meditation" is simply a no-go to me.

I have spent 25 years writing textbooks trying to get the taxonomy straight among the many healing techniques we call "Complementary and Alternative Medicine." And Mindful Meditation is a distinctly modern and American development—from right here in my home state at the University of Massachusetts in recent decades. In fact, the term "mindfulness" is used specifically to distinguish it from Asian traditions such as Transcendental Meditation.

Researchers say their IBMT differs from other forms of meditation because it depends heavily on the inducement of a high degree of awareness and balance of the body, mind, and environment. Which is curious because that's precisely what characterizes Mindful Meditation itself—being present in the moment.

These idiosyncrasies make me wonder about the validity of this seemingly groundbreaking research. I fear it may be another example where we have some high-tech tools in the hands of high-tech researchers. Who, unfortunately, don't seem to understand the first thing about various meditative approaches.

We already knew that meditation—by whatever name (even the old fashioned kind we do in church, called prayer) improves mood and health. And we also knew that meditative states change brain metabolism. But if what these researchers have found is actually true—and these effects are literally changing in the structure of nervous tissue... Well, that really is something to contemplate!

I'll keep you posted on any more developments that come about with this research. But in the meantime, if you're interested in learning more about Mindful Meditation and its significant health benefits, please refer to my book, *New World Mindfulness*, available at www.DrMicozzi.com.