The Cholesterol Myth

“Saturated fat and cholesterol in the diet are not the cause of coronary heart disease. That myth is the greatest ‘scientific’ deception of the century, and perhaps any century.”

- George V. Mann, M.D.
  Professor of Biochemistry and Medicine
There is simply no one better in the 21st century at developing practical health-related solutions based on the world’s leading medical and nutritional science. “Science – Not opinion” is Brian’s trademark. When Brian is through explaining a topic it is “case closed!” When he says it, you “can take the information to the bank!”

Unlike most of his peers’ recommendations, Brian’s health and nutritional recommendations have stood the test of time. Brian has never had to reverse or significantly alter any of his medical reports—reports that have tackled everything from the dangers of soy, to the wrongly popularized need for fiber in the diet, to his warning about the potential harm of supplementing with copious amounts of omega-3. In 1995 he published the report “Fiber Fiction” and finally, eleven years later, others in research are acknowledging the silliness of recommending fiber in the diet of a human being. Brian’s latest crusade is to warn of the dangers of excess omega-3 (in particular, fish oil) and how it will lead to increased cases of skin cancer. The list goes on and on...

Brian received an appointment as an Adjunct Professor at Texas Southern University in the Department of Pharmacy and Health Sciences (1998-1999). The former president of the University said of his discoveries: “...His nutritional discoveries and practical applications through Life-Systems Engineering are unprecedented.” Brian earned his Bachelor of Science degree in Electrical Engineering from Massachusetts Institute of Technology (MIT) in 1979. Brian founded the field of Life-Systems Engineering Science in 1995. This field is defined as The New Science of Maximizing Desired Results by Working Cooperatively with the Natural Processes of Living Systems. To many, Brian is THE MOST TRUSTED AUTHORITY ON HEALTH AND NUTRITION IN THE WORLD.

Brian continues to be a featured guest on hundreds of radio and television shows both nationally and internationally. His sheer number of accomplishments during the last decade of the 20th century and into the 21st century are unprecedented and uniquely designate him as the #1 authority in the world of what really works and why. Forget listening to the popular press or most popular so-called health magazines. Their editors simply don’t understand the complicated science that they write about – they merely “parrot” what everyone else says without independent scientific verification. Their recommendations often have no basis in reality of how the body works, based on its physiology.

Brian has dedicated his life to provide the truth – which is almost always opposite to what everyone says. Here’s why Brian is the #1 man in America to listen to when it comes to your health.
The Cholesterol Myth

This special report explores the origins of The Cholesterol Myth that has become so widespread, causing a panic about cholesterol levels, and a rash of cholesterol lowering drugs and diet products. The Bottom Line is with no the cholesterol scare is completely unfounded, with no direct scientific basis for it. Actually, the reverse is true! The sciences of physiology and biochemistry prove cholesterol and necessary for many vital biological processes. Before we explain the need for cholesterol in our diets, let’s explore the origin of the Cholesterol Myth started.

Origin of The Cholesterol Myth

In approximately 1954 – 1955, a “scientist” did a study using rabbits eating high fat/high cholesterol food. The diet clogged the rabbit’s arteries, so the low-fat diet was recommended to us. Understand, a rabbit is an herbivore – designed to eat vegetables only. We are omnivores, designed to eat both vegetables and animal-based foods! A rabbit’s physiology is entirely different from ours – they don’t naturally eat animal-based foods. Cholesterol only comes from animal-based foods. No vegetable contains cholesterol. It’s unfortunate such a study was taken seriously since the physiology of the rabbit, compared to ours was not taken into account. Eating foods it was not designed to eat killed the rabbit. This should have been expected, just as it should be expected for humans to get sick when we don’t eat the foodss our bodies require.

The body is a complex system with thousands of concurrent processes. Our body takes much of the fat we consume and through many digestive processes, often surrounds it with a protein (this combination is termed a lipoprotein). After using what it needs for immediate energy, the rest is used in building body structure such as your brain (which is 60% fat), skin, nerves, hormones, and to complete the membrane structure of each of the 100 trillion cells in your body.

First, we must be able to distinguish good fats from bad fats. Bad fats - hydrogenated oils, often found in margarine and most supermarket items, have replaced the good healthy ones like butter, the natural fat from meat, and unprocessed, full-fat dairy products.
Let’s take a look at the structure of our cells. The critical bi-lipid membrane cell walls are composed of half fat and half protein. **There is no structural carbohydrate in your 100 trillion cells.** Of the half fat about 25%-33% is **suppose to be from natural** polyunsaturated fats (EFAs) and from saturated fat. Saturated fat has been incorrectly termed “bad” over the past 5 decades! The saturated fat supports cellular structure, keeps out impurities, protects the delicate polyunsaturated fat (EFAs), and gives cellular support. The polyunsaturated fat allows essential nutrients, hormones, numerous biochemical processes, and vital oxygen into the cell. Fats have a particular molecular structure. But when good, natural dietary fats are altered into trans-fats and other man-made, biochemically altered structures, the molecular composition changed. Our bodies substitute them in place of the good natural fats it needs, but can’t find in our diet.

Damaged fats create damaged cells. Transfats don’t have the required structure our bodies are designed to use. Our bodies use them even though they are defective, since out diets no longer contain the necessary fats.

Hydrogenated oils and other man-made modified oils\(^1\) are known to stop the oxygen transfer of EFAs and cause cancer. Even when margarine and other hydrogenated products contain relatively few transfats—as little as just 1%-2% — this translates to an enormous number of transfat molecules.

There will be \(1 \times 10^{21}\) molecules (one followed by 21 zeros, or 100 million-trillion) in each tablespoon of oil. Therefore, the potential to cause damage, either integrally in the cellular structure, or in biochemical reactions, is highly significant, because only a tablespoon of defective oil provides some **100,000 defective oil molecules for each cell in our body—a tremendous overload potential.**\(^2\) Add to this huge number of defective fat molecules from other processing sources and you will be terrified at what you and your family have been consuming for decades!

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1. In addition to transfats, there are many other unnatural chemical configurations caused by food processing that negatively impact cell function and oxygen transfer.

2. Here is how that figure of 100,000 defective oil molecules per cell is derived: The molecular weight of a triglyceride (any EFA-containing oil; good or bad) is approximately 1,000. A liter (quart) of oil contains approximately 1,000 grams (about 2 pounds), and from chemistry a mole (gm molecular weight) of any substance contains about \(6 \times 10^{23}\) molecules. Therefore, there is a mole of triglycerides in a liter of cooking oil. There are 64 Tablespoons per liter—let’s say it’s approximately 100 tablespoons (instead of 64) per liter to keep it easy to calculate. Therefore, there are on the order of \(10^{21}\) (one hundred million-trillion molecules of oil) per Tablespoon (\(10^{23}\) molecules per 100 Tablespoons = \(10^{21}\) molecules). The defective amount is about 1% (1/100) or \(10^{19}\) molecules. The body contains about 100 trillion cells (\(10^{14}\) cells). Therefore, the overload potential of bad EFAs on body cells is \(10^{19/14}\), or 100,000 bad EFAs overwhelming each of your body’s cells.
Damaged fats and oils ruin our bodies in a number of ways. Rather than “high” or “low” cholesterol being a problem, the real issue is not the amount of cholesterol or the HDL or LDL number, but rather whether your cholesterol structure has been damaged.

Would you use water to fuel your car’s engine? Of course not! Certainly it’s cheaper, but it’s the wrong kind of fuel. It would destroy your car’s engine. Food processors probably weren’t aware of the dangers of changing the essential fats in our foods. Since their focus was to extend the shelf-life of foods. But in extending the life of products, the consumer’s health has been devastated. Our bodies need lots of unprocessed, natural fats and oils. Without them, a number of negative things can happen to our overall health because the health of our cells determines the health of our entire body.

What is Cholesterol?

Cholesterol is actually a steroid. “Chol” = bile and “Sterol” = steroid. Steroids belong to a large and varied group of chemical compounds that are naturally produced by the body. Cholesterol is the most abundant steroid and it is used as building blocks for cell membranes, maintaining healthy cells, an aid to digestion, and in the manufacture of sexual hormones.³

Cholesterol is a solid waxy-substance that is naturally produced by all animals during their normal metabolic processes. Cholesterol is associated with fats in animal derivatives but it is not a fat. Cholesterol can be classified with the lipid family: fat-like substances that are insoluble in water but soluble in fat solvents.

Here are 13 very important facts about cholesterol in humans:

- Cholesterol is produced by the body in large quantities.

- All cells contain it and all tissues make it.

- Cell regulate their own cholesterol level.

- Cholesterol gives cell membranes their integrity and strength.

³ Michael W. King, PhD / IU School of Medicine.
• Cholesterol enhances the permeability-barrier properties of the lipid bi-layer. This means that nutrients get in and impurities are kept out. This is critical for proper cell nutrition.

• Cholesterol is an essential part of bones and gives them flexibility.

• Cholesterol has a major structural role in the brain, where it is found in high concentrations.

• Cholesterol enables nerve impulses.

• Vitamin D is made from the interaction between cholesterol and sunlight on your skin. Defective cholesterol can lead to skin cancer.

• Bile, manufactured by the liver and essential for proper fat digestion, is produced from cholesterol.

• Cholesterol is essential for the liver and intestines to function properly.

• Cholesterol protects the skin against absorption of water-soluble toxins.

• Cholesterol retains moisture so we do not dehydrate.

Cholesterol is found only in animal products, not in plants. Vegetable oil ever contains cholesterol, but they can contain many harmful substances. In particular; defective EFAs. Dietary cholesterol has an insignificant effect on blood cholesterol. If the diet doesn’t contain enough cholesterol, the body manufacturers it.

It has been known for years consuming dietary cholesterol does not significantly influence blood cholesterol. The human body produces 3,000-4,000mg of cholesterol each and every day. And it is almost completely independent of how much cholesterol you eat in your diet. Dietary cholesterol (from food) accounts for no more than an insignificant 10% of blood cholesterol.


1. “With even a 30% fat diet, increasing dietary cholesterol from 319 mg to 941 mg per day [close to a 300% increase], the blood LDL only increased a mere 6% [18 points]!”

2. “Even insulin resistant women did not experience a significant cholesterol increase!”

The problem has never been with the cholesterol number. Dr. George Mann, Professor of Medicine and Biochemistry, stated it so well in 1991: “Cholesterol in and of itself is NOT the cause of cardiovascular disease.”

### Cholesterol’s Role in the Body

**Cholesterol is essential for life.** Without lots of cholesterol we would die. Cholesterol helps provide the needed variable rigidity and flexibility to every cell of our body. The walls of all cells are composed mainly of cholesterol, fat and protein. These membranes are porous in order to let nutrients and hormones in. They are also designed to prevent toxins and waste by-products from entering. Over 90% of cholesterol is found in the tissue. If there is not enough cholesterol in the cell membrane, the walls lose their rigidity and expand outward, due to the inner pressure of the cell, leading to possible cell damage, or destruction.\(^5\)

Cholesterol acts as the raw “food” from which the body makes a wide array of essential hormones; in particular, the sexual hormones, none of which we can live without: testosterone, estrogen, progesterone, and cortisone are among just a few.\(^6\)

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Where do we Find Cholesterol?

Brain cells are extremely rich in cholesterol; they consist of approximately 7% (by weight) cholesterol. I can’t repeat this enough. Cholesterol is the raw material from which the body makes many important hormones – the adrenal hormones (involved in sugar metabolism, fluid balance, the maintenance of blood pressure, and the preparation of the body for stress) and the male and female sex hormones: testosterone and estrogen. In addition, cholesterol is essential for the normal growth and repair of body tissue. Large amounts of cholesterol are also found in the skin.

The function of cholesterol in the skin is four-fold:

1. To keep the skin flexible and highly resistant to water-soluble toxins.
2. To prevent water loss from the large surface area of the outer layers of skin.
3. To protect you from harmful aspects of the suns rays.
4. To work in conjunction with sunlight to produce vitamin D, essential for the body’s utilization of calcium.

Cholesterol’s vital functions:

- Healthy Nerve Function
- Liver Health
- Hormone Production
- Brain Health
- Bone Health
- Intestinal Health
- Cellular Health

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8. ibid.
The Liver

The liver produces bile salts required for digestion. Without bile salts, fats and vitamins are not properly utilized, and we would have a serious vitamin deficiency. In addition, the bile salts absorb many of the toxins that have accumulated in the fats we consume (toxins from pesticides, herbicides, growth hormones, pollutants, etc.) as well as the naturally occurring toxic by-products our body produces during metabolic processes.

These toxin-saturated bile salts are excreted from the body in the feces. The liver makes them by metabolizing cholesterol! In fact, this use of cholesterol may be the most important function of cholesterol in the body: up to 70% of all cholesterol in the body is converted into bile salts.

NEWS FLASH:
The liver produces sixty to seventy percent of all cholesterol in the body. Very little cholesterol comes from the foods we eat. It has been shown that for every one milligram of dietary cholesterol we consume, there is one-tenth of a milligram increase in the blood cholesterol levels (a small 10% change). Therefore, cholesterol in food is not the cause of high blood cholesterol.

The Awful Results of a Low Cholesterol Diet

The body regulates dietary sugar to 0.1%, but there is no regulator in your body for cholesterol!

The body does have sensors to tightly monitor blood sugar, calcium and sodium. The body doesn’t monitor cholesterol levels because the structure of the cholesterol, not the amount, is what is vital for your health. If we were eating properly and getting good, natural fats in our diet, there would be no cholesterol problem. It is the man-made, chemically altered fats, and the overly high-carbohydrate diet, that cause the problems.
You may be surprised that incidents of Heart Disease have increased steadily with the introduction of these “healthy” foods and low cholesterol recommendations.

The American Death rate from Heart Attack and Stroke was only 3% in 1900. By 1997 it increased to nearly 50% (while eating more grains, less protein, less fat, and less cholesterol)!

It is becoming far too common for young men, even those in their thirties, to be prescribed cholesterol-lowering drugs. Men in this age range, who have been “eating right” for years and taking their prescriptions faithfully, are still dying of heart attacks.

Rather than seeing an improvement in the state of our nation’s health, it has declined dramatically. Why, if all of the recommendations given to us for years are correct, are we getting sicker faster? Why, if we were consuming considerably higher levels of cholesterol in the past were our hearts and vascular systems healthier then than they are now? If the dietary recommendations we’ve been following were correct, the opposite should be true.

We were warned back in 1956 that hydrogenation from the modern food industry (margarine) would cause massive heart disease.  

An increasing number of doctors, given misleading information from pharmaceutical companies, are proclaiming that cholesterol is the primary cause of heart disease. This epidemic kills almost half of all North Americans. The problem with this is that the majority of people with “high cholesterol” levels don’t die of heart disease, while many with lower cholesterol do.

William P. Castelli, MD, a medical director of the Framingham Cardiovascular Institute, directed a study carried out over 16 years. He reports that *twice as many people with life-long cholesterol levels in the range 150 – 200 have heart attacks as do people with cholesterol over 300!*\(^\text{10}\)

A dire warning was published in a 1995 study by two physicians, Thomas B. Newman and Stephen B. Hulley, at the University of California in San Francisco. They said widespread cholesterol testing for people under twenty years old should be abandoned. They are concerned cholesterol-lowering drugs are being prescribed far too frequently – and often unnecessarily – for people who are at little risk of developing heart-related problems.\(^\text{11}\)

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**Cholesterol lowering drugs were prescribed to 12 million people in 2004!**

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**An important message to the elderly:** Dr. Harlan Krumholz and his coworkers at the Department of Cardiovascular Medicine at Yale University found that in the elderly, high cholesterol even seems to be protective. They followed 997 elderly men and women living in the Bronx, NY for four years. During that time, about *twice as many subjects with low cholesterol had a heart attack or died* from one compared to those with the highest cholesterol levels. Also, the Framingham study clearly demonstrated that: “Those whose cholesterol had decreased by itself during these 30 years ran a greater risk of dying than those whose cholesterol had increased. For each 1 mg/dl drop in cholesterol there was an 11 percent increase in coronary and total mortality.”\(^\text{12}\)

All of this information is *completely opposite to everything we hear.* When you’re armed with the scientific truth about cholesterol, you will be able to distinguish between good and bad advice.

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The Good, The Bad & The Guilty
LDL and HDL – What’s Really to Blame?

When doctors talk about “bad” cholesterol and “good” cholesterol, those terms can be misleading. Cholesterol is neither good, nor bad. LDL stands for Low Density Lipoproteins. LDL transports EFAs (vital fats) into the cell. Because LDL transports fats into the cell (even though the fats it transports are vital for proper cell function), it was termed “bad” simply because they are fats. Even though it’s been labeled as “bad,” LDL occurs naturally in the body and is essential for life.

LDL is vital because it transports essential fatty acids (EFAs) into the cells. EFAs are important nutrients in themselves providing the cell with what it needs to have a healthy structure. They also carry much needed oxygen to the cell, which protects the cell from irreparable damage that often leads to disease.

HDL stands for High Density Lipoproteins. HDL carries toxins and cholesterol out of the cell and to the liver so that it can be processed and the unused portion excreted along with the toxins. HDL is nothing more than the cholesterol not required by the cell recycled back to the liver. A higher level of HDL is not “protective” as shown below. (see Special Report: Landmarks in Health and Nutrition). That amazing finding was not publicized. Structure is everything.

From the Journal of Clinical Investigation, 2001:13 “Current dogma supports a key role in reverse cholesterol transport and defects in the HDL-mediated process are thought to contribute to the development of atherosclerotic plaques.”

“Contrary to expectations ... secretion rates were not impaired.”
“Mice lacking HDL do not show impaired hepatobiliary [liver] transport, suggesting that HDL plays little or no role in the process.”

“Although most people now think that ABCA1 [and HDL] is a cholesterol transporter per say, there is no evidence for this contention.” [cholesterol transporting mechanism isn’t influenced by either of them the way we are led to believe.]

Over 90% of cholesterol is found in the cells where it gives integrity to the structure and regulates the two-way flow of nutrients and waste products.  

Cholesterol is not the cause of arterial damage. It is there to repair and protect the arteries from damage.

Probable causes of arterial damage are:

- High levels of insulin in the blood damage artery walls and cause blood clots. This is caused by a diet high in carbohydrates (sugar) that raise insulin levels.  

- Insufficient EFAs compromises arterial health and integrity.

- Oxygen transfer is diminished (caused by EFA deficiency and high carb diets slowing down bloodstream speed).


• Xanthine Oxidase (XO) from homogenized milk damages arteries. XO is “unlocked” by the homogenization process. Prior to homogenization, the XO acid molecules are too large to bypass your digestive systems.

• Toxins and chemicals in our foods.

• Excess calcium supplementation. The last stage of heart disease is termed calconification of the plaque. Excess calcium precipitates out of the bloodstream and onto the artery wall.

LDL is the mechanism which brings life-sustaining EFAs into the cell. Once we restore EFAs in our diet and EFA blood levels increase back to a normal, healthy level, LDL cholesterol should also be expected to increase in the bloodstream. Once the EFA-deficiency has been eliminated less cholesterol will be required.

LDL and HDL contain the same cholesterol. It is only the grouping (the “tightness” of the packaging) that is different. The functions of LDL and HDL cholesterols are completely natural and necessary.

Some physicians are just starting to acknowledge cholesterol is not the cause of cardiovascular problems. In 1996 the American College of Physicians stated that regular cholesterol testing is not necessary for everyone, and men under the age of 35 and women under 45 or people over 75 do not necessarily need testing unless they smoke or have a family history of heart disease, high blood pressure, or diabetes. They say that there is little evidence that lowering cholesterol in such individuals helps prevent illness or death. Cholesterol in and of itself is not the issue, but rather the structure of the fat we’re consuming, and the effect it has on our EFA-containing cholesterol structure.

Triglycerides – A Strong Warning Signal

The cholesterol “number” is not as significant a risk for heart disease compared to triglycerides. Triglycerides pose a 70% increased risk – independent of cholesterol. Triglycerides are produced predominantly from dietary carbohydrates - NOT from dietary fat!

18 Circulation 2000; 101:2777-2782
19 Basic Medical Biochemistry: A Clinical Approach, pgs. 25-26, 512. Dawn B. Marks,
A high-carbohydrate diet causes your triglyceride levels to rise. High triglycerides are a strong indicator that something is seriously out of balance. The proper cholesterol structure should be your primary concern closely followed by your triglyceride levels.

Triglycerides (fats in the blood) decrease as we lose body fat, when we reduce carbohydrate intake. They also decrease with higher EFA consumption; while a low fat diet is not going to help reduce triglycerides. The most important kinds of fats to add to your diet are Essential Fatty Acids (EFAs) – parent omega 6 and parent omega 3.

Polyunsaturated fats naturally support healthy blood cholesterol levels.\(^2^0\)

Essential Fatty Acids are also possible mediators of the action of statins.\(^2^1\)

1. “Statins and polyunsaturated fatty acids have similar actions.”
2. “In view of the similarity of their actions and that statins influence essential fatty acid metabolism, it is suggested that EFAs and their metabolites may serve as secondary messengers of the action of statins ....”


How Your Body Uses Dietary Fat

“How saturated fat and cholesterol in the diet are not the cause of coronary heart disease. That myth is the greatest ‘scientific’ deception of the century, and perhaps any century.”

George V. Mann, M.D. - Professor of Biochemistry and Medicine
Vanderbilt University, (1991)

Most fats and oils inside the body are packaged in a form called a triglyceride for easy transportation around the body. Oils in our body are often packaged together with two saturated fatty acids outside and one EFA inside 3 fat molecules in order to protect important and fragile EFAs.

There is no biochemical mechanism in the body to directly store dietary fat as excess body fat. The only mechanism in the body used for storing body fat originates from sugar (carbohydrate) consumption. 1% of the pancreas, the beta cell portion, allows conversion of sugar (carbs) to triglyceride (bodyfat), while the rest of the pancreas processes fats and proteins.

Adipose tissue (fat) is stored ONLY when eating carbohydrates.

From Principles of Medical Biochemistry, page 372, the clear quoted statement is made: “...fatty acids [from eating fat] cannot be converted into carbohydrates. Carbohydrates, on the other hand, can be converted into triglycerides [excess body fat]” and “…[E]xcess energy from dietary carbohydrate is stored away as triglyceride in adipose tissue [body fat].” And “Adipose [fat cells] need sugar (glucose) for the synthesis of triacylglycerols.

As you can see the statement, “eating fat makes you fat,” is WRONG scientifically! There is no mechanism in your body for storing dietary fat as excess body fat.

22 George V. Mann, M.D., Professor of Biochemistry and Medicine – Vanderbilt University, 1991.


24 Basic Medical Biochemistry—A Clinical Approach, pages 476, 510-12
You will be shocked at these important facts you need to know:25

- No clear correlation was found between serum [blood] cholesterol levels and the nature and extent of arteriosclerosis [heart] disease.
- Cholesterol levels in and of themselves are meaningless.
- 1,700 patients with heart disease analyzed clearly show more heart-related disease with cholesterol between 1 and 250 than between 300 and 400 or higher!

Eat More Fat & Protein & Lower My Cholesterol?

Yes. Believe it or not, when the body receives good natural fats, including saturated fats like the fat on meat and Essential Fatty Acids (EFAs), it will balance itself and cholesterol levels will normalize. This was known back in 1956!26 The body NEEDS both saturated and unprocessed polyunsaturated fats (EFAs) as much as it needs protein for body structure.

At least 60% of people who suffer heart attacks do NOT have elevated cholesterol levels.

Cholesterol levels, in and of themselves, can’t be the cause of heart disease because most people with heart disease have normal cholesterol levels. How unscientific can published reports be?

The more natural, real cholesterol-rich foods you eat, the lower your serum cholesterol levels will be. The less cholesterol in your diet, the higher your serum cholesterol. Why? Because if you don’t give your body the right foods, it will attempt to over-compensate for what it’s lacking, thereby producing more cholesterol.

Twenty years ago, Dr. W. Stanley Hartroft said in the *Condensed Chemical Dictionary* (the “bible” of scientific chemistry), “It still has not been shown that lowering the cholesterol in the blood by this amount [20%] will have any protective effect for the heart and vessels against the development of atheroma and the onset of serious complications.” Also, he stated that “There is still no conclusive proof that increase in body cholesterol as a result of high dietary intake of animal derived saturated fats or fatty acids is causatively related to atherosclerosis [clogged arteries].”

In 1973, research sponsored by the Food and Nutrition Board of the National Research Council (NRC) confirmed that there is no significant link between cholesterol in the diet and cholesterol in the blood. They went on to say that they did not recommend restricting fat or cholesterol. Again, this is completely opposite to what the majority of “experts” are currently saying.

Only 10% (an insignificant amount) of blood cholesterol is derived through diet. 80-90% of all blood cholesterol comes from production by the liver, not from pre-formed cholesterol in foods.

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The world’s premier medical journal, the *Lancet*, stated back in 1994 that no saturated fats were found in aortic plaque!\(^29\) This means that eating saturated fat does *not* cause heart disease.

**It is impossible for cholesterol to be the cause of cardiovascular disease for the following reasons:**

- Cholesterol levels have remained relatively constant over the past 100 years while the Cardio Vascular Disease (CVD) levels have increased dramatically.
- The body makes the cholesterol it needs, no matter what the amount of cholesterol in your food. Cholesterol is necessary for the proper functioning of the body. No matter how much dietary cholesterol is consumed blood cholesterol rises by no more than only 6%, which is insignificant.

The world’s premier cardiac medical journal, *Journal of Cardiovascular Risk* clearly states that, “HDL/LDL ratio does not improve when saturated fat is replaced by carbohydrate. The **low-fat diet has been considerably less effective in lowering total or LDL cholesterol than predicted.**”\(^30\)

The Framingham Heart Study found that: “The **more saturated fat one ate, the more cholesterol one ate, the more calories one ate, the lower the person’s serum cholesterol.**”\(^31\) Once again this is the opposite of what we have been told.

**Here are some findings presented at American Heart Association meeting, June 2000:**

- “**Lowering fat intake is not effective** for reducing cardiovascular risk.”
- **Fats should be placed low on cancer risk list.**
- **The ideal diet for** [CVD] **prevention contains healthy essential oils.**

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\(^30\) *Journal of Cardiovascular Risk*; No. 1, June 1994. Rapid Science Publishers, ISSN: 1350-6277, Antonio M. Gotto, Editor, Cornell University Medical College, Ithaca, NY

The Carbohydrate/Cholesterol Connection

Carbohydrates are nothing more than sugars in disguise - contributing to heart disease\(^\text{32}\).

Numerous medical textbooks state that dietary carbohydrate actually INCREASED the triglycerides (blood fats) along with the LDL levels in our bodies. At the same time, carbohydrate causes the HDL levels to decrease.\(^\text{33}\) The worst possible combination found for elevating blood cholesterol levels was that of foods, which combined high levels of carbohydrates along with chemically altered fats.

Years ago, an egg was understood to be the "perfect food." It had lots of protein and natural fats that the body needs.

Recommendations for the consumption of eggs changed because of a study conducted to explore the effects of dietary cholesterol in humans. Dried egg powder (rather than fresh eggs) were used in the study for the testing. As expected, the results were quite negative. The processing the eggs underwent to turn them to powder caused chemical changes in the egg’s properties (the same as it does with turning good natural fats to trans-fats).

Insulin production, a response to consuming carbohydrate, raises cholesterol levels.\(^\text{34}\) Proteins and natural fats don’t!

- Triglycerides of VLDL (a form of LDL, often labeled as “bad”) are produced mainly from dietary carbohydrates (not dietary fat!).\(^\text{35}\)

\(^{32}\) Basic Medical Biochemistry: A Clinical Approach, pgs. 25-26, 512. Dawn B. Marks, Allan D. Marks, Colleen M. Smith, Lippincott, Williams & Wilkins, August, 1996.


\(^{35}\) Basic Medical Biochemistry: A Clinical Approach, pgs: 475, 566. Dawn B. Marks, Allan D. Marks, Colleen M. Smith, Lippincott, Williams & Wilkins, August, 1996,
• “HDL/LDL ratio does not improve when saturated fat is replaced by carbohydrate. Low-fat diet has been considerably less effective in lowering total LDL cholesterol than predicted.”

Misleading Misconceptions
(commercials & pharmaceutical propaganda)

We see on television and in popular publications, that a cereal or particular food (always carbohydrate based) “may” lower your cholesterol. There are also new drugs released constantly that state they lower cholesterol levels. These advertisements seem to make sense, so we go out and buy the products because we think we’re helping ourselves. But “low cholesterol” doesn’t translate to decreased heart attacks. Hence the reason for the ineffectiveness of cholesterol-lowering drugs they simply can’t eliminate enough of the defective EFAs being transported to work well. This is why the medical journal article titled “LDL Cholesterol: ‘Bad’ cholesterol or Bad Science,” published in Journal of American Physicians and Surgeons, Vol 10, No. 3, Fall 2005, by Anthony Colpo, stated:

“Among elderly Belgians, higher levels of oxidized LDL were accompanied by a significantly increased risk of heart attack regardless of total LDL levels.

“...However, there was no association between oxidized LDL concentrations and total LDL levels [in Japanese patients undergoing surgery to remove plaque].

“No tightly controlled clinical trial has ever conclusively demonstrated that LDL cholesterol reductions can prevent cardiovascular disease or increase longevity.” (Emphasis added.)

Established science and real-life results show us that the only dietary substances that actually raise cholesterol levels (or to be more accurate, damages our cholesterol structure) are carbohydrate foods and man-made chemically altered fats and oils! Also, it has been shown that cholesterol-

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36 *Journal of Cardiovascular Risk*; No. 1, June 1994. Rapid Science Publishers, ISSN: 1350-6277, Antonio M. Gotto, Editor, Cornell University Medical College, Ithaca, NY
lowering drugs do not work significantly.\textsuperscript{37} So if science is telling us this, why are drug manufacturers and carbohydrate-based food manufacturers, telling us the opposite? It’s all about money and advertising.

Health publications are full of “great” advice. They tell us what to eat and how to care for our bodies down to the finest detail. But they don’t explain the how’s and why’s of our bodies or where they got their information. There are rarely, if ever, any medical textbooks references given to support what they say. The average person hasn’t got the faintest idea how their body works. So we’ve trusted health writers to inform us on how to take care of ourselves. Unfortunately, health writers rarely understand human physiology any more than the average person does.

Nobel Prize-winner Richard Feynman says health writers can’t be trusted, they don’t understand what they are writing about! Here’s why:

“The experts who are leading you may be wrong…. We get experts on everything that sound scientific …. They’re not scientific. They sit at a typewriter and they make up something … make up all this stuff as science and become an ‘expert.’ … They haven’t done the work necessary. There’s all kinds of myths and pseudo-science all over the place.”\textsuperscript{38}

Doctors have jumped on the bandwagon as well; because they don’t have time to verify that the info they read from these “experts” is scientifically correct.

It may surprise you to learn that most colleges nutrition courses are not a part of the medical or science departments of their school, because of this, you can expect gross inconsistencies between science and nutrition advice. Significant medical textbooks, like Essentials of Biochemistry, Biochemistry of Exercise and Training, Molecular Biology of the Cell, Basic Medical Biochemistry, and Textbook of Medical Physiology, are not used to train nutritionists.

\textsuperscript{37} Journal of American Medical Association, 1994, No. 272, pgs 1335-1340

\textsuperscript{38} The Pleasure of Finding Things Out by Richard Feynman, 1999.
How Can They Get Away With It?

The problem is that no one is doubting what they’re being told or asking the proper questions. When a company selling a particular product has a vested interest in making sales, and making health claims will increase their sales, truth becomes obscured by money.

Listen carefully for certain “weasel” words and phrases used by these ads. Phrases like “may help”, “have been shown to”, “can”, “studies suggest”, “possibly”, “we think”, “could”, “would”, “associated with”, “should”, etc. These terms are taking responsibility away from the company selling the product by not stating definitely that the product actually does what they say it does. Becoming aware of these phrases will help you see through their campaigns. Instead of hearing “our cereal lowers your cholesterol” you’ll realize what they actually say is “our cereal MAY lower your cholesterol...” Regarding the cereal/cholesterol connection, we don’t understand it because carbohydrates raise, not lower, cholesterol levels. NO cereal can lower cholesterol, since it’s been proven that carbohydrate foods raise cholesterol levels.\[39\]

No matter how much we may want to believe popular dietary advice, nature will not be fooled. Our bodies work in a specific way and science has already discovered everything we need to know to eat a healthy diet.

Scientific Foundation of the Truth
Further Studies & Information

The results of a study reported in 1994 relating blood cholesterol levels to either survival or hospitalization for coronary heart disease were very clear. With 1,000 subjects, men and women over age 70, during a 4-year period, there was no reported correlation whatsoever between blood cholesterol level and hospitalization. These people were no more and no less likely to be hospitalized with high cholesterol levels.\[40\] If cholesterol really was an issue it would manifest itself in the elderly very strongly. It didn’t.

In 1993 the University of Leeds in England released a report titled “Cholesterol Screening and Treatment.” Drugs for lowering high cholesterol levels were given to a study’s participants. The patients whose cholesterol


was artificially lowered with drugs developed heart disease just as frequently as the drug-free high-cholesterol group. The drug increased HDL and decreased LDL (what is supposedly “ideal” among current thinking) and yet there were more health problems among the group taking the drugs! In the conclusion of this study, the researchers stated the following:

- Apart from those with extremely high cholesterol levels (top two percent), cholesterol screening cannot be connected with individual risk of heart-related disease.
- Few people identified purely on the basis of cholesterol levels will benefit from drug treatment.
- Drug treatment only benefits those with additional risk factors, such as high triglyceride level or high blood pressure.
- The study discourages general cholesterol screening.
- Overall conclusion: For the 98% with less than “lethal” (above 300) cholesterol levels, there was no benefit from treatment, and drug therapy given to lower-risk patients was actually detrimental.

According to this study it is not a good idea to use drugs to alter the natural process of the body. Yet the number of prescriptions for cholesterol-lowering drugs in England is increasing by 20% per year. Cholesterol-lowering drugs are prescribed ten times more often now than just ten years ago. Twelve million people now take cholesterol-lowering drugs in the hope of warding off heart disease…\(^{41}\) A disastrous result of a long-term study performed in Finland, where the researchers tried to artificially manipulate cholesterol and blood pressure levels follow:~\(^{42}\)

One thousand male business executives aged forty to fifty-three were physically well but had risk factors for developing heart disease. Half the group was medically supervised whereas the other half wasn’t. The supervised group was given a program of regular exercise, “strict” diet, and even blood pressure-lowering drugs. There were a shocking \textbf{240\% MORE deaths} from heart attacks in this supervised group (including drugs) than the unsupervised one!

\[^{41}\text{Cowley, G, “The Heart Attackers”, Newsweek, August 11, 1997, pp 54-60.}\]
There is no blood cholesterol sensor in your body because the absolute number doesn’t matter.

However, there are sensors for blood sugar, calcium, salt, etc. When we look at these tests, one of the issues we need to consider is that the majority of the world population is currently deficient in essential fatty acids. With EFA-deficiency the body will unnaturally compensate for any stress that is placed on it. The results that we see from these tests tell us reducing fats in our diet and artificially altering our bodies with the use of cholesterol lowering drugs is wrong.

The truth was known back in 1977 and has not changed since then.

It has not been shown that lowering blood cholesterol has any positive effect on the heart.\textsuperscript{43}

A New Look at LDL Cholesterol, Clogged Arteries and EFAs

Statin drugs are those used to control cholesterol levels in the body. In 2001 it was determined that; “Statins and polyunsaturated fatty acids have similar actions…. In view of the similarity of their actions and that statins influence essential fatty acid metabolism, it is suggested that EFAs and their metabolites may serve as secondary messengers of the action of statins....”\textsuperscript{44}

EFAs naturally accomplish what statin drugs do to decrease cholesterol levels. While this by itself can help speed blood flow, this is not the most important thing to know about EFAs in relation to cholesterol and clogged arteries.

\textsuperscript{43} Condensed Chemical Dictionary, 1977.

Composition of Arterial Plaques
Contrary to what we have heard for decades, it is not the saturated fat you eat that clogs your arteries! A 1994 Lancet article reported measuring the components of arterial plaques. In investigating an aortic artery clog, the study found that there are over ten different compounds in arterial plaque, but NO saturated fat.45

There was some cholesterol in the clog. This is explained by the fact that cholesterol acts as a **protective healer** for arterial cuts and bruises. So what is the predominant component of a clog? You probably guessed it—the adulterated polyunsaturated oils we have spoken about—those that start out containing good EFAs but are **ruined during commercial food processing**. These are the same damaged oils predominant in the foods we’re sold constantly to help LOWER our cholesterol and prevent heart disease!! The solution is actually the cause of the problem.

“LDL contains up to 80% lipid [fats and oils], including polyunsaturated fatty acids and cholesterol, mainly esters. **Linoleic acid (LA), one of the most abundant fatty acids in LDL, produces a number of products when subjected to oxidative modification...**”46 [emphasis added]

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Esterified cholesterol comprises the majority of LDL. LDL stands for Low Density Lipoprotein. LDL is not just “cholesterol”. Most important is understanding what the term cholesterol “esters” making up the majority of the LDL structure means. *Harper’s Illustrated Biochemistry* (26th edition) on page 219 answers this important question in their description: “Cholesterol is present in tissues and in plasma either as free-cholesterol or in a storage form, combined with a long-chain fatty acid [containing EFAs] as a cholesterol ester. In plasma, BOTH forms are transported in lipoproteins.” (Emphasis added). And from *Harper’s Illustrated Biochemistry*, pg 224, we discover that dietary cholesterol is tied to EFAs, too: “Of the cholesterol absorbed, 80 - 90% is esterified [with EFAs] with long-chain fatty acids in the intestinal musoca.” Perhaps for the first time, the cholesterol/EFA connection has now been made crystal clear. Now you understand why I say that cholesterol acts a “poison” transporter when you have defective EFAs in your diet.

Virtually everyone is missing a key point concerning “competition” in the body between ruined and good omega 6: your body still uses the defective EFAs, even though they don’t work! That is correct—your body will use the “next best thing” in the cells if it can’t get the parent omega 6 EFA it needs. It will use adulterated or *transfat* parent omega 6, it will use an EFA derivative, or it will be forced to even use the non-essential oleic acid
(omega 9) that your body can either manufacture on its own or can come from foods like olive oil. But these substitutes do not provide the highest level of oxygenation for the cells. They are nearly worthless for protection. You must therefore “overpower” the defective EFAs you are taking in through the diet with adequate pure, unprocessed and unadulterated omega 6 EFAs to take their place.

A further consideration showing the need for more omega 6 supplementation in relation to omega 3 is the fact that the omega 3 that you get from foods is usually not adulterated. Thus there is no “competition” between good omega 3 EFAs from supplements and the bad omega 3 from food, and no need to overwhelm any bad omega 3 EFAs.

All these facts show why, for maximum protection, you should take much smaller quantities of omega 3 EFAs in relation to your omega 6 supplementation than is recommended. Let’s continue with an examination of body tissue composition to discover what EFA ratio we require.

In nature, with the consumption of organic, unprocessed EFAs rather than adulterated oils and transfats, LDL cholesterol is supposed to be made up of significant amounts of properly functioning “parent” omega 6 linoleic acid (LA) and is not supposed to be harmful. It is the natural transporter of parent omega 6 and parent omega 3 into the cells. It is thus not critical to lower LDL cholesterol, nor is the absolute LDL number as important if the diet contains sufficient unadulterated EFAs. (Recall that the body has no natural “cholesterol sensor” in the bloodstream. It would if its levels had to be maintained within exact limits.)

Huge numbers of molecules of the omega 6-based cooking oils are ruined by commercial food processing. In the body these are incorporated into the LDL cholesterol. With the consumption and transport of defective, cancer-causing processed oils, LDL cholesterol acts like a “poison delivery system,” bringing deadly transfats and other ruined oils into the cells.

This is THE REAL REASON behind why everyone keeps telling us to “lower cholesterol at all costs”—yet the medical profession has offered us no insight into the science of why. So LDL cholesterol is improperly blamed.

So don’t let the pharmaceutical company scare you into believing that you should therefore minimize parent omega 6 (along with parent omega3), because of “oxidation” concerns. This will lead you astray. It is true that fats and oils oxidize—that’s partly how they do their job. This is like saying never burn any wood for heat because it’s “oxidizing.” Oxidation occurs in the process of producing the energy. In wintry climates you would freeze
to death without it. The proper answer is to keep adding \textit{more} wood to the fire, not less, so that the fire doesn’t go out! \textbf{So the correct answer is to take a daily supply of unprocessed, properly functioning EFAs, not cut them out.}\footnote{Further references: Waddington, E, et al., “Identification and quantification of unique fatty acid and oxidative products in human atherosclerotic plaque using high-performance lipid chromatography,” 	extit{Annals of Biochemistry}; 292:234-244, 2001; Kuhn, H., et al., “Structure elucidation of oxygenated lipids in human atherosclerotic lesions,” 	extit{Eicosanoids}; 5:17-22, 1992.}

Furthermore, these consequences go beyond heart disease, because (1) ruined EFAs in arterial blockages cause decreased blood speed, and even worse, (2) \textit{Because the analysis of aortic arterial plaque is so high in oxidized and ruined polyunsaturated oils, defective polyunsaturated fats and oils are the most important reason your arteries become clogged.}

Additionally, they are also the root cause of blood clots forming in the arteries and not being able to dissolve away naturally, as they do on external cuts. Blood clots are a tremendous problem with cancer cases, estimated to be responsible for \textit{over 80\% of the cancer mortality rate} because they facilitate transport cancer throughout the body (metastasizing) when it would not have spread without blood clots.

\textbf{Top German Biochemist Gets it Right! Dr. Spiteller Understands the Cholesterol / EFA Connection: The Story You Haven’t Heard...}

Professor Dr. Gerhard Spiteller\footnote{Dr. Gerhard Spiteller attended Massachusetts Institute of Technology, as a postdoctoral fellow in 1960-1961. He is the Chairholder of Biochemistry, Institute of Organic Chemistry at the University of Bayreuth. He discovered - urofuranolic acids and has published over 100 scientific papers.}(footnote 1) was also right about the true cause of heart disease. The following excerpts are from his article titled “Is Atherosclerosis a Multifactorial Disease or Is It Induced by a Sequence of Lipid Peroxidation Reactions?”, published in the \textit{Annals of the New York Academy of Sciences}:

\begin{quote}
“Consumption of \textbf{oxidized PUFA-cholesterol esters} seems to be \textbf{responsible for the initial damage to endothelia cells}. \\
“It has been \textbf{recognized} that consumption of butter and other mammalian derived fats present, for example, in meat possess a strong atherogenic [heart disease causing] risk. Butter contains large amounts of saturated fatty acids. Therefore, it was \textbf{deduced that saturated fatty acids induce atherogenesis.}
\end{quote}
“On the other hand, a diet of fish was recognized [incorrectly] to be antiatherogenic. Compared with other foods, fish contains higher amounts of n-3 fatty acids. Therefore, n-3 fatty [omega-3 series] acids have been regarded and are still assumed to be antiatherogenic, in spite of the conflicting reports.

“Although saturated fats can withstand oxidation, n-3 fatty acids are PUFAs and, like all other PUFAs undergo LPO [oxidation] as shown experimentally. The deduction that fats rich in saturated fatty acids is a risk factor in atherosclerosis is therefore in disagreement with experiments demonstrating that the oxidation products of LDL are derived mainly from linoleic acid and partly from arachadonic acid [omega-6 derivative]. The fact that all PUFAs undergo LPO equally well is in disagreement with the conclusion that n-3 fatty acids are protective.” (Emphasis added.)

Life-Systems Engineering Science Commentary

Dr. Spiteller makes it quite clear that oxidized EFA esters are the culprit in heart disease. He explains how it was incorrectly “deduced” that saturated fats were artery-clogging when an elementary understanding of biochemistry disproves that possibility. Then he shows why omega-3 oils can’t be “artery protective” like the “experts” claim. His article continues.

“[C]holesterol is transported to cells in esterified form by low-density lipoprotein (LDL). LDL is recognized by an endothelial cell receptor and induced into the cell by endocytosis. There, the esters are cleaved [removed]. The resulting free cholesterol is transferred to cell walls. The overall process is strictly regulated.

“In atherosclerotic patients LDL is altered by oxidation. This altered LDL is taken up in unlimited amounts by microphages. Dead microphages filled with cholesterol esters are finally deposited in arteries. The fact that LDL is rendered toxic by oxidation raises the question, which constituents of LDL are prone to oxidation?....”

“Thus, atherosclerosis seems to be a multi-step sequence of LPO reactions, but not a multi-factorial disease.” (Emphasis added.)

Dr. Spiteller makes it quite clear that parent omega-6 is transferred to the cell wall in a **strictly regulated process**. However, once the cholesterol becomes oxidized, the process of removing the defective material **becomes unregulated and it ends up in large part in your arteries!** It is the parent omega-6 that is the most significant altered substance of LDL. He ends with the statement that **there is but one prime cause of heart disease, the defective parent omega-6.** His article ends with a comment that shows why olive oil cannot be very effective in human tissues:

> “Phenols [certain plant compounds in olive oil], **excellent scavengers in plant tissue**, are not readily incorporated into human tissues and their strong **antioxidant properties cannot be expressed after consumption and digestion of plant-derived food.**” (Emphasis added.)

Many health “experts” claim the virtues of olive oil are due in large part to phenols. Although we find nothing wrong with the consumption of olive oil (extra-virgin organically pressed with low acidity is best), we now see that it is not beneficial because our tissues can’t make use of its antioxidant properties. Hopefully, our vital message will reach people before they are stricken with heart disease.

**NOTE:** Current Studies are being done to determine whether cholesterol is produced by cells at the site of damage, rather than being sent to the site by the body in the circulating blood. Since nearly every cell of the body produces cholesterol, it well may be that the cholesterol does not come from the circulating blood... but from the very cells at the point of injury to the intima (The innermost membrane of an organ or part, especially the inner lining of a lymphatic vessel, an artery, or a vein). Although this report disproves that cholesterol itself is the cause of heart disease, if this is proved to be the case, claims that dietary cholesterol contributes to arterial clogs would be completely reduced to absurdity.

The information contained in this report should convince you of the errors in nutritional and health advice that is leading everyone down a dead-end road to ill-health. The essential problem is defective parent omega 6. We have been meticulous about where we obtained our information, and diligent in how we linked it together to paint a correct picture for you in our never-ending desire to bring you the truth.

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