

YOUR CHOLESTEROL MATTERS

*What Your Numbers Mean
and How You Can Improve Them*

Richard Furman, MD, FACS



*a division of Baker Publishing Group
Grand Rapids, Michigan*

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Preface

My quest to help people get healthy all began when I realized I was treating patients' symptoms, but what they needed was information about prevention. So many things affect your health, and many health problems can be prevented if you simply learn what you are doing that harms your health as well as what you can do to enhance it.

Cholesterol and fats have been subjects of much interest lately in the news. You may have read recently that it is not cholesterol but sugar that damages your arteries. Some news articles you may read say it is now safe to eat fats. But medical research has affirmed that over half of deaths are caused by disease in the arteries of the heart and the brain that results in heart attacks and strokes. So what information should a person rely on concerning cholesterol and fats?

Since the aging process is determined by the health of your arteries, it is important for you to know the truth about cholesterol and fats and the effect each has on blood vessels. There are ways to prevent processes that damage your

arteries, and knowing what you should be doing is the key to good health.

That is why I would like to become your personal “book doctor.” There is medical information you need to know. The more you understand your health from a medical perspective, the easier it will be for you to develop lifestyles that will improve your health. I realize you have a physician who knows your medical history and physical condition. I do not want to change one thing they have told you to do or not to do. If you ever have a question concerning your health or medication, I refer you to your doctor, who knows your specific conditions.

However, personal physicians rarely have the time to go into the details of your health as thoroughly as you are going to read about in this book. You may have recently been prescribed a statin drug to lower your cholesterol and told you need to lose weight and exercise. You were probably given a pamphlet or instruction sheet explaining the side effects you may encounter from the medicine. Your doctor may have explained the basic concept of what is going on in your body. Those instructions are good building blocks. But you also need information that will help you prevent problems that will likely occur unless you make changes. That is why I wrote this book.

This book provides a review of the medical literature in terms you can understand. You will learn what your cholesterol numbers mean and why they are so important to your health. After reading this book, you will never have to ask yourself whether you should eat certain fats or not. You will learn the bad fats to avoid and the good fats to eat plenty of.

Your eating habits will change, not because I or your doctor or someone else tells you to avoid particular foods but

because you will know what each bite of certain foods can do to your arteries and how the damage those foods can cause leads to heart attacks and strokes. You will look at some foods you now enjoy with a completely different attitude because you will have learned what they are doing to you and how they determine your future. The more you learn medically, the more you will want to not eat the bad and to eat the good.

You will develop a personal exercise program that fits your condition. You will learn about medical research that shows the amazing benefits of doing some form of exercise and the positive impact exercise has on your cholesterol levels. You may not start out enjoying your physical activity, but you will do it as regularly as if you were taking a prescription of “exercise medicine” for your health.

Losing weight also improves your cholesterol levels. Only 12 percent of Americans are at their ideal weight. You will learn what the medical literature has to say about the effect being overweight or obese has on your overall health and will learn some essentials to losing excess weight and keeping it off.

What you are about to read is not based on my ideas. It is based on what the medical literature has to say. This book was written by a physician who wants to help as many patients as possible learn how to protect their most prized possession: their health. The information in this book is what you need to know whether you are in your thirties or your eighties. It will explain what is going on in your body from a medical perspective.

I want to become your “book doctor” so we can go over what cholesterol levels mean to your health in more detail

than you would get in an office visit. Not only will the advice in this book help you take charge of your cholesterol, but if you diligently apply the suggestions, you can also turn your physiological age clock back quite a few years. Yes, you will add extra years to your life. But even more important, those years will be active, quality years—beginning today.

I look forward to many follow-up office visits with you.

Your “book doctor,”

Richard Furman, MD, FACS

Introduction

You may have picked up this book because you just saw your doctor, and they told you your cholesterol is high. Maybe a friend just had a heart attack, and you have taken an interest in your health. This book will help you understand cholesterol and its impact on your body. It will help you understand that not all fat is bad. Bad fats and good fats affect your cholesterol differently. And as an added benefit, everything you do to improve your cholesterol numbers will make an impact on your overall health and even how long you live.

His name was Bryan. When he was thirty-six years of age, his doctor gave him the bad news that his cholesterol was way too high. What made this news worse was the fact that Bryan's father had had a heart attack when he was fifty-eight years old, and the physician told Bryan he was more prone to have such an attack with his family history. The doctor prescribed a statin drug in an attempt to get Bryan's cholesterol numbers lower.

“What should I do?” he asked me as a friend. “I want to be around for my children, my grandchildren, and my wife.”

I looked at the sheet of paper that showed his cholesterol results. Never in my medical career had I seen such high numbers.

“Your total cholesterol is 289. It should be below 200.” I looked at his LDL cholesterol and HDL cholesterol as well as the ratio between his HDL and total cholesterol. I knew he did not have any idea what the numbers meant, and this was not the right time for a long discussion on cholesterol levels.

“There are three things you can do that have a significant effect on your cholesterol.” I began a simple explanation but was quickly interrupted.

“I’ll do them all. Anything you tell me, I’ll do. I don’t want a heart attack in my fifties.”

“Okay, two of the lifestyles that affect your cholesterol you already do. You are at a good weight and you exercise. So that just leaves the foods you eat. What you are eating is the cause of your high cholesterol numbers.” I went on to explain that I wanted him to continue exercising and to keep at his weight, which I felt was ideal for him. Then I went over a list of foods he should not eat one bite of for the next two months.

“Then we will get another blood sample and recheck your numbers. Just make sure this plan is okay with your doctor [who was a friend of mine]. Tell him I recommended it for a two-month period, and if your cholesterol isn’t down, then you can begin your medication. I assure you he will agree with the plan if you commit to the diet we just went over.”

One week later, I was talking to three football coaches, and all three asked me the same question: “What in the world did you say to Bryan the other day about his eating? We can’t get him to eat a single French fry.”

I smiled. “He’s on a special diet. It’s one he will probably be on the rest of his life.”

His report two months later read: total cholesterol 196. I told him, “Congratulations. You won’t have to take your statin, and I think you can get that number even lower. If you keep your bad cholesterol low by avoiding the wrong foods and your good cholesterol high by exercising and maintaining your ideal weight, you will be on the right road to avoiding a heart attack.”

“If only my dad had known.” That was his first comment. “If only he’d known what to do, I think he was the kind of person who would have done it.”

Many patients tell me, “If only I had known.” If only they had known what caused them to have a heart attack, they would have lived differently. If only they had known the real danger of smoking, they would not have developed lung cancer. If only they had known red meat was a causative factor of colon cancer, they would have eaten differently. It’s the worst phrase a physician can hear.

For more than thirty years, I was a vascular surgeon. I opened arteries that were plugged with plaque and spooned the blockage out. I placed the pieces of plaque in the palm of my hand and felt them with my fingers. I know what plaque is like, and I want you to have the same knowledge I do about what certain foods can do to your body, about the effect exercise has on your health, and about how important it is not to be overweight. With this medical knowledge, getting control of your cholesterol numbers will become easier.

This book is not just my thoughts about how fat and cholesterol affect your body. This material is not something I thought up or a product I am pushing. In this book, I am pulling together

the best medical research and summarizing it in an easy-to-understand format. After reading and studying, you will never have to say the dreaded phrase, “If only I had known.”

You will know.

The Art of Healthy Arteries

Your arteries play a monumental role in the aging of your body. The flow of blood through your body carries nutrients, oxygen, electrolytes, and essentials that keep your body running like a new engine. That blood is pumped through your system by your heart and is carried by sixty thousand miles of arteries, plus veins. The condition of those arteries determines how well your body is supplied with all it needs to function at 100 percent. As those arteries become damaged, plaque buildup or inflammation can result in a blockage. Both events will cause the blood flow to completely stop or become markedly decreased. The downstream area then becomes starved for oxygen.

Over half of all Americans will die as a result of damage to the arteries of their hearts or brains. Yet this is a preventable process. Don't become one of the statistics. Set aside the time to learn what the medical literature has to say about preventing the aging process. Learn which fats to avoid, which fats are good for you, and the role that the cholesterol in your blood plays in the aging process.

Fat Myths

There is a big misconception in America concerning fats. We have been told for years, “Don't eat fatty foods. Fat causes

heart attacks and strokes. Don't eat any fats. They're bad for you."

More recently, people have written articles and even books saying that fat does not cause the problems in our arteries. Fat does not cause heart attacks and strokes and erectile dysfunction. Instead, sugar is the problem. The next time you hear someone say that fat isn't the problem, just realize they are only half right. (A half-truth is still a whole lie.) Not all fats are bad for us, and not all fats are good for our health. It is important to know the difference.

Some types of fat are good for you because they cause an increase in your good "hero" HDL cholesterol. Nuts, fish, and olives are the most common foods that contain the good fat.

Some, but not all, low-fat foods contain additional sugar to improve the taste. That is something to realize, but you must remember that bad fats have a much more pronounced harmful effect on your arteries than sugar. Sugar does affect the health of your arteries, but saturated fat causes the most harm. When you learn to abstain from bad fats, don't replace them with sugar. Replace them with the good fats and the good foods you will learn about in this book: foods such as fruits, vegetables, nuts, peas, whole grains, fish, and olive and canola oil.

Don't replace bad with bad. Replace bad with good.

Prevention versus Symptoms

Someone asked me, "What are the symptoms of high cholesterol?" I needed only one word to answer her. "None." And that is the problem. We have no idea what is going on inside our arteries. Our bad eating habits create a constant

increase in the number of LDL cholesterol particles floating around in our blood. For years and years, damage is being done to our arteries without any warning signs, without any symptoms. We continue our routine of gaining a little weight each year, doing less and less exercise, and eating pretty much whatever we want. The damage to our arteries continues until we have a heart attack or a stroke. The same process even leads to erectile dysfunction in men.

You don't have to be a physician to realize you need to do all you can every day to protect the health of your arteries. Eighty-five percent of people over the age of fifty have some significant blockage in the arteries of their heart without experiencing any symptoms.

These individuals haven't had the first pain in their chest. They haven't had any undue shortness of breath. They haven't experienced pain shooting down their left arm. Most individuals over fifty have significant blockages in their arteries, yet they don't know it because there are no red lights that come on to warn them. Two-thirds of the time the first symptom of blockage is a heart attack. There are no bells or whistles before it happens. One day you are going along routinely and suddenly you have a heart attack.

When does this blockage begin? By the age of twelve, 70 percent of children have some fatty deposits in their arteries. Even though the deposits are minute, the beginning of the disease process is there.

So many times the first symptom of high blood cholesterol is a sudden death from a massive heart attack or a massive stroke that leaves you in a wheelchair for the rest of your life—unable to speak. Waiting for symptoms to happen before you change your lifestyles of weight control, food, and

exercise is similar to hearing that you have lung cancer and then deciding to quit smoking. It's the right thing to do—but a little late. Don't wait on symptoms.

Your health is one of the most prized possessions you will ever have. If your car needs an oil change, you get it to the shop. If your refrigerator quits working properly, you call someone to repair it. Your body is more valuable, so give your health your best care.

Change for Life

The lifestyles of weight control, food, and exercise determine your physiological age. The medical literature shows us how to develop each lifestyle in order to live younger longer.

Recently, I had dinner with a couple, and the wife was telling me about an herb that had made her bad cholesterol go down and her good cholesterol go up. She went on and on about how good it was for her. Her husband sat quietly until she finished and then said that it may have worked for her but it hadn't for him. He had been placed on a statin drug to lower his bad LDL cholesterol. Her response was classic. "You didn't take enough of the supplement. If you had, it would have worked for you."

This conversation illustrates why medical literature is such a good place to find out what really works and what doesn't. Research in medical literature is not based on what works for one wife and not for one husband. It is based on the double-blind-study concept to prove the numbers. "Here's how scientists would test this pill," I explained to them. "They would take two thousand people and give a thousand of them the real herbal pill and the other thousand a placebo

that looked identical. Neither group would know whether it had the herb or not. Then after a period of time, blood would be drawn from all the participants to see if the cholesterol level had changed in one group over the other. That is called a double-blind study. There is no guesswork. The pill either works or it doesn't. Such double-blind studies are the basis for approval by the FDA." I hesitated before telling them the next thought. "However, supplements do not go through such a test to see if they work or cause harm."

"Well, I know it worked for me," the wife stated.

"Not for me," the husband replied.

It is simple to do double-blind studies on lifestyles. And these studies have shown that the lifestyles of weight control, food, and exercise are life changing and important. All three of them are also intertwined, one aiding the others when followed and hindering the others when ignored. You need to learn about and follow all three for your best physiological health.

Can't I Just Take a Pill?

Do you know the most prescribed medicine in the world? It is a drug that has a statin in it. Research has shown that such medication helps prevent heart attacks and strokes because it cuts down on the LDL cholesterol particles traveling around in your blood. It is an accepted medical fact that it is important to keep your LDL cholesterol low. Does the fact that almost half of everyone over the age of forty-five is on a medication to lower their cholesterol say something about the most significant health problem we have in America?

What would you say if I told you that the three lifestyles we have mentioned not only will bring your LDL cholesterol

down but also will increase your good HDL cholesterol? As you read on, you will learn how all three of the lifestyles affect both LDL and HDL cholesterol.

If someone tells you that your cholesterol level is not important anymore, just remember that the medical community knows that lowering LDL cholesterol has saved thousands of patients from heart attacks and strokes.

You can lower your LDL cholesterol in one of two ways: taking a pill or changing your lifestyles. If you are on a cholesterol-lowering drug, listen up. If you read that little paper written in fine print that comes with your prescription, you may be surprised to see there are things you could be doing to avoid having to take the medicine altogether, or at least to take a lower dose, which would mean fewer side effects. That drug information paper says that *if* eating properly, getting to a healthy weight, and exercising do not lower your cholesterol (your LDL cholesterol), then you should take the medicine. I have asked numerous individuals who are on such medication if their physician had them try lifestyle changes (avoiding certain foods, losing weight, and exercising) before prescribing the drug. So far the answer has been no. Most patients are placed on the medication and told that in addition they should work on changing their eating habits and should exercise and lose some weight. But the doctor doesn't have the time to explain the importance of lifestyle changes.

Here is one more factor that will make you think about the importance of changing your lifestyles so you don't have to take medication to lower your cholesterol: side effects. Side effects of any medication are real, but we don't usually pay attention to them until they affect us. Have you ever seen a drug advertisement on television? I don't see how

the commercials are effective when they list all the possible dangers associated with the medication. Most people would run from the drug rather than take it if they paid attention to all the possible side effects.

I have a friend who was on a cholesterol-lowering medication, and his leg muscles and joints caused him so much difficulty that he had to use both hands on the handrail when he climbed a flight of stairs. His doctor took him off the statin because he needed to take another medicine that could not be taken with the statin. Within two months, not only was my friend climbing stairs normally, but he was also able to get back on the elliptical machine to exercise.

I asked him, “Did your physician encourage you to develop a diet that would lower your cholesterol, to lose that extra twenty-five pounds you are carrying around, and to set up an exercise plan before he prescribed the cholesterol medicine? Did your doctor explain the difference between good fats and bad fats?”

I remember his blank stare as he answered, “I remember a piece of paper came with the medicine, but I didn’t read it. It looked too complicated for me to understand.”

I explained that the instruction sheet for cholesterol-lowering medicines begins with a statement that such medicine is indicated *if* eating properly, reaching and maintaining a proper weight, and exercising were not successful in getting the cholesterol to a normal range.

If you are on a cholesterol-lowering drug, you can learn how to get the dose lowered or completely discontinued. There are better ways to control your LDL cholesterol with no side effects. If you start such lifestyle changes, your physician will encourage you wholeheartedly.

A False Sense of Security

Whether trying to lose weight, lower your cholesterol, or avoid a heart attack, don't give yourself a false sense of security.

Do you take a baby aspirin daily to prevent a heart attack? Do you know someone who does? Nearly a third of middle-aged Americans regularly take a baby aspirin in hope of preventing a heart attack or a stroke.

A recent article in the medical journal *Archives of Internal Medicine* reported on a study of more than one hundred thousand people who had never had a heart attack or a stroke. They were given either an aspirin or a nonaspirin placebo. Researchers found that the overall risk of dying was the same with both groups. The aspirin takers were 10 percent less likely to have any type of heart event but were 30 percent more likely to have a serious gastrointestinal bleeding event, a side effect of frequent aspirin use.

The report concluded that for people without a previous heart attack or stroke, the regular use of aspirin may be more harmful than it is beneficial. If you are taking an aspirin without being directed to do so by your doctor, ask your physician if you should be taking it. Don't use it as a false sense of security. There are many things you can do that have a much more profound effect on preventing a heart attack.

If you are trying to take something to prevent a clot from forming, you should also be making lifestyle changes. If you are not living a heart- and artery-friendly lifestyle and are only taking an aspirin, you are going bear hunting with a switch.

It is much more important to know the difference between good fats and bad. It is much more important to give up the bad fats and replace them with the good. It is good that

people who take a baby aspirin daily are interested in their health. Much more significant is that they make the commitment to develop healthy lifestyles that protect them. The worse type of trick you can play on yourself is to eat a dinner high in saturated fat and then go home and take an aspirin to “protect” yourself from a heart attack. Focus on preventing the *cause* of a blood clot forming in a heart artery rather than concentrating on what may help after such a clot forms.

Develop the lifestyles of weight control, proper eating, and exercise to keep your LDL down and to get your HDL up. If your doctor recommends that you take an aspirin, by all means take it while you are making the big three lifestyle changes.

I was eating dinner with some friends who told me an interesting story about a friend of theirs who took an aspirin to prevent a heart attack. He was in his late fifties and was found dead in his car on the side of the road. His father was in a rest home, and he was on his way to visit him. He had complained of some sort of strange feeling in his chest earlier in the day, but he didn’t think it was significant. A few hours later, someone stopped to see why a driver was just sitting in a car on the side of the road. He was not breathing. His heart had stopped. There was nothing that could be done. Beside him on the seat was a new bottle of aspirin. It had been opened. But the aspirin couldn’t save him. Don’t fool the person in the mirror.

Years ago, I made some dramatic changes in my life after I reviewed the medical literature. Knowing what the medical literature said motivated me to commit to not eating certain foods, exercising regularly, and sustaining an ideal weight. I want you to have a similar experience as you read this book.

► **Action Steps**

1. Recruit an accountability partner or organize a support group to help you develop a plan. Determine how often you will communicate about your progress. Develop your goals together.
2. Buy two or three types of fat-free salad dressing to replace your current dressings at home.
3. Eat nothing fried for the next week.

PART 1



TAKING CHARGE

Richard Furman, MD, FACS, Your Cholesterol Matters
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1. Cholesterol Matters

We have a problem. Most people do not know what is going on in their bodies. The damage happens quietly, and most people have no idea that what they are doing is causing the damage.

Your overall health is determined in large part by the health of your arteries. Your heart is the pump, and your arteries are the conduit responsible for carrying every particle necessary to keep your body functioning properly. If you learn nothing else concerning your anatomy related to your health, take note of the importance of the health of your arteries. Your arteries are the pipeline for the nutrients that are essential to every cell in your body. If that pipeline is partially plugged, you are setting yourself up for problems, especially in your heart and brain. Keep the health of your arteries at the forefront of your thinking as you continue reading this book.

Picture in your mind small particles floating around in your blood. Some of these particles are good; some are bad. The bad particles work their way through the lining of an artery and get stuck in the wall itself. This causes a reaction in which

cells and fluids mix in an attempt to get rid of the foreign particle that has invaded the wall of the artery. Over time, this reaction can lead to either a rupture or plaque buildup in the affected artery. This is a silent process. It doesn't cause you pain. It doesn't give you a headache or make your chest hurt. It works quietly while you order extra cheese on your hamburger and ask for extra cream sauce on your steak.

The health of our arteries is one of the greatest health problems in America and one that results in over half of our deaths every year. We all need to learn and remind ourselves what happens in our bodies as we go about our daily lives. We need to know what the numbers represent when the doctor hands us our cholesterol reports. We need to know that blood cholesterol is completely different from dietary cholesterol. One is in blood, and the other is in food. The cholesterol in our blood affects our arteries directly. The cholesterol in certain foods can cause our blood cholesterol to become elevated. You are going to learn which foods have the most profound effect on your blood cholesterol. I encourage you to avoid as many of the foods that elevate your blood cholesterol as possible.

Most people do not realize that not all cholesterol is bad. Just as there is good fat, there is also good cholesterol. You are about to learn the difference as a physician understands it, and you won't have to go to medical school to find out.

Cholesterol: More Than Just a Number

Cholesterol is a fatty substance in the outer layer of every cell in your body that maintains each cell's membrane. It is involved in the production of sex hormones as well as

hormones released by your adrenal glands. It insulates nerve fibers. It is significant in the metabolizing of certain vitamins, including A, D, and E. It is essential to your body.

Cholesterol is carried through the bloodstream combined with a protein. The structure of the cholesterol with the protein is a molecule called a lipoprotein. There are two main types of lipoproteins. They appear on your lab report as Low Density Lipoprotein and High Density Lipoprotein, or LDL and HDL. Here is an easy way to remember them: LDL is “lethal,” and HDL is a “hero.” You want your lethal number to be as low as possible and your hero number to be as high as possible.

Your cholesterol numbers are to your body what warning lights are to your car. If you are like many people, you don’t know your numbers, or if you know them, you don’t realize the significance of abnormal numbers. If you don’t know your cholesterol numbers, get a test done today to find out what they are. You have to notice a warning light before you can take action.

By the Numbers

Let’s look at what doctors mean when they talk about cholesterol numbers. There are three important numbers: the total cholesterol, the LDL cholesterol, and the HDL cholesterol.

When your doctor tells you your cholesterol is too high, they are usually talking about your total cholesterol number. But most patients don’t realize that the total cholesterol is the sum of their bad LDL cholesterol and their good HDL cholesterol. There are some additional cholesterol particles within that total number, but they are fairly insignificant to understanding what is going on.

When your physician says your cholesterol is too high, they actually means your LDL cholesterol is too high. This is because your total cholesterol number is made up mostly of your lethal LDL cholesterol, and if it is high, your total number is high.

If you are told you must get your cholesterol down, your doctor means you should get your LDL cholesterol down. When your physician says to start on a cholesterol-lowering medication, what they should say is that they are going to start you on an LDL cholesterol-lowering medication. Your doctor should then explain that the primary cause of high LDL cholesterol is eating foods that contain the bad fats.

Lethal LDL Cholesterol

Let me give you an illustration of how LDL cholesterol affects your arteries.

Picture what happens when a splinter gets stuck in your finger. The area of the penetration becomes a battleground. The body responds initially by pouring fluid into the space around the splinter. The fluid contains numerous specialized cells that are expert at fighting the foreign body. One of two things then happens. The area either ruptures and drains, or it heals with cells that cause thick scar tissue.

The same process happens when an LDL cholesterol particle gets stuck in the wall of one of your arteries. That LDL particle is like the splinter. The LDL splinter causes your body to send out the inflammatory army to that battleground in the wall of the invaded artery. Again, one of two things happens. The area swells with inflammation that ruptures into the artery, which results in immediate clot formation and blockage of that artery, like a straw plugging up, or the battle

ensues until fibroblast cells surround the enemy LDL particle and wall it off, forming a scar, which is known as plaque.

The LDL cholesterol splinters do not pick and choose which arterial wall they are going to get into, but the ones we hear about the most are the ones that cause the most dramatic symptoms and damage. These are the arteries in the heart and the brain. Heart attacks and strokes are the result.

The damage takes years to accumulate and often happens numerous times at the same places, usually where there is turbulence in the blood flow, such as where an artery divides or where a smaller artery branches off from a larger one. If there is repeated healing and scarring, plaque builds up until it finally gets large enough to cause a complete blockage of the artery.

When a splinter gets in your finger, you make sure you don't stick your finger into the briar patch again. But the problem with cholesterol is that when the LDL splinters get in the wall of an artery, no pain is involved. You don't realize it is happening over and over. There is no pain to warn you. You have to learn from medical research.

Hero HDL Cholesterol

The component that is often skipped when considering cholesterol numbers is that you should do everything possible to get your HDL cholesterol higher in addition to getting your LDL cholesterol down.

The cholesterol that usually gets left out of the discussion is the good, hero HDL cholesterol. However, the HDL number is as important as the LDL number in understanding how damage to your arteries comes about and what can be done to protect them. In fact, the American Heart Association lists a significantly low HDL as a cause of heart disease. It is

as bad as hypertension or obesity when it comes to causing a heart attack. Therefore, physicians should educate their patients on what can be done to raise HDL even though there is no medication they can prescribe for it.

HDL cholesterol is of equal significance to LDL cholesterol because HDL cholesterol combats LDL cholesterol, which is the culprit causing problems in the heart arteries, brain arteries, or any other artery in your body. If your HDL is below 40, you are in a separate medical category of cardiac danger. Here is the way to picture how HDL particles work.

Think of HDL particles as patrol cars that cruise through your blood looking for lethal LDL cholesterol splinters. An HDL particle pulls up by an arterial wall that has several LDL splinters in it, puts them into the patrol car, and takes them to jail—the liver—which disposes of them. Then the HDL patrol car goes back to pick up more LDL splinters to take them to the liver. The more of these patrol cars you have, the better. As a matter of fact, for every point increase in HDL, there is a 2 to 3 percent decrease in your chance of having a heart attack.

There is no medication to increase your HDL. The two lifestyles that play the biggest role in controlling your HDL cholesterol are your weight and how much you exercise. The more you weigh, the lower your HDL is going to be. As you lose excess weight, your HDL will increase. Exercise does the same thing; the more intense your exercise, the higher your HDL cholesterol will get.

The Importance of the Ratio of Total Cholesterol to HDL Cholesterol

The more HDL patrol cars you have and the fewer LDL splinters you have, the better. That means you need to do all

you can to avoid the foods that cause your LDL to increase. At the same time, you need to do all you can to increase the number of HDL particles in your arsenal of battleground equipment. The two biggest weapons are exercise and weight loss.

The cholesterol number that is often the least explained is the ratio of total cholesterol to HDL cholesterol. If you were to divide your total cholesterol number by your HDL cholesterol number, the more HDL cholesterol you have, the lower that ratio would be. This shows the importance of having as much HDL as possible to fight the battle and as few LDL enemies as possible to fight against.

Let's say that in your total cholesterol number there is one unit of HDL and four units of LDL. If you add them together, you would have five units for your total cholesterol. If you divide your total cholesterol by your HDL, you would get a ratio of 5.0. Now let's say you have two units of HDL and four units of LDL, giving a total of six units. If you divide your total cholesterol of six by your HDL of two, your ratio falls to 3.0. You want your ratio to be below 3.5. Even if your LDL stays the same, you can drop your ratio by raising your HDL.

The importance of the ratio of total cholesterol to HDL makes you realize the significance of your HDL cholesterol. Remember that statin drugs affect only the LDL cholesterol part of the picture. If you avoid foods that contribute to your LDL number while at the same time losing weight and exercising, which increases your HDL number, you will improve your ratio. There is so much more you can do to protect your arteries than take a pill to help lower your LDL cholesterol. Don't focus on one aspect of the battle. Fight the full fight.

Look at the whole picture of what is happening and go after quality health.

No medication can protect you as much as you can protect yourself by taking proper care of your body. Statins have been shown to prevent many heart attacks by lowering a person's LDL cholesterol. If your doctor has you on such a medication, by all means take it, but be sure to talk to your physician about your commitment to make lifestyle changes that should make it possible for you to decrease or even eliminate the medicine. Your physician will keep a record of your HDL to total cholesterol ratio. Aim high and shoot for a ratio below 3.5.

Good Choices and Bad Choices

If you don't know which foods are bad, you will continue to choose the kinds of foods that result in damage that causes over half of the deaths in America. Once you know good and bad choices and the result of each, your eating lifestyle will change.

Let me give you an example. I took a flight from Cusco, Peru, to Lima, Peru, and had a two-and-a-half-hour layover. The fellow I was traveling with had credentials to get us into the airline lounge. We went to the nicest flight lounge I had ever seen. There was a room designated as a quiet zone with large padded lounge chairs and dimmed lighting. (Most of the people in the room were asleep, and I wondered if any would miss their plane.) The food was markedly different from that of other lounges I had visited. There was a long table with a machine in the middle that produced fresh-squeezed orange juice. The attendant placed whole oranges

into the top, and you could watch them being sliced in two and carried to a rounded grinder that produced juice, which fell to the bottom of the see-through box. It was entertaining to watch.

To the right of the orange juice machine were the healthy foods: a multitude of different nuts, bowls of olives, and fruits.

To the left were fried bananas, small sandwiches of processed meat mixed with some type of mayonnaise, chocolates of all shapes, at least three types of cakes with creamy icing, and some type of fried chips I didn't recognize.

If the people in charge of the food knew about bad fats and good fats, they could not have done a better job of showing the public which foods they should eat and which they should avoid.

This food selection was going to be my dinner, because in a couple of hours I was going to board an overnight flight back to the United States. I planned to sleep the full seven hours rather than spend the first two hours waiting for dinner to be served on the aircraft.

Let me tell you what I ate because I knew which foods cause the lethal LDL to increase and which foods cause the hero HDL to increase. Three mainstay food types ran through my mind: fish, nuts, and olives or olive oil (or canola oil). These foods contain the good fats—the healthy monounsaturated fat and the good omega-3s. I didn't see any fish, but I saw a large selection of nuts and olives as well as an orange and a banana. I filled my plate and took a seat.

I wondered what my friend would get. He didn't understand that his eating habits were causing disease to his arteries. He got every fried item they had. He quickly ate several

sandwiches with the processed meat hidden in mayonnaise globs and went back for seconds. He even had a third helping of whatever the little fried fingerlings were. Then he went back for the chocolates.

Why? I kept asking myself. Why do individuals not pay attention to what medical research shows us about how to keep our bodies at peak performance? That is my goal in this book: to condense the best medical research for you in easy-to-understand terms, to tell you what things you can control that will allow you to decide how you want to live. Then it is up to you to choose. I am hoping you will commit to quality choices for life.

Your Numbers Do Matter

In my study hangs a plaque a friend gave me that reads, “If you are going to be stupid, you’ve got to be tough.” I will admit I did some stupid things that inspired my friend to give me the plaque, but I encourage you to seek wisdom, not be tough, when it comes to protecting your most valuable possession—your health.

Money can’t buy extra years for your life. The Bible states that money can’t keep us from the grave. All must die someday. But the following information from the medical literature proves that though we can’t avoid the grave, we can add years to our lives and improve the quality of the years we have.

The *Journal of the American Medical Association* reported a study on the life expectancy of men who had favorable total cholesterol levels compared to men of the same age who had unfavorable total cholesterol levels. The results astounded me, and I think they will astound you too. The

men who had the favorable total cholesterol levels had a life expectancy that was 3.8 to 8.7 years longer than that of those with the unfavorable total cholesterol levels. There was a continuous, proportional relationship between total cholesterol and life expectancy. The men who took their eating habits the most seriously had the 8.7-year increase.

These figures alone give you a huge insight into the importance of controlling what you are doing to your body. High total cholesterol spells danger because the total cholesterol number consists mostly of the lethal LDL cholesterol. So the next time you order a steak with a creamy cheese sauce, butter on your baked potato, and fried green tomatoes as your vegetable, realize how expensive that meal is, and I am not talking dollars. Years of your life are a lot to pay just because you didn't know what you were buying.

Here are several more statistics that will motivate you to do something to increase the quality of your life. The facts show that you have over a 50 percent chance of dying from disease in your arteries—a heart attack or a stroke. Look yourself in the mirror and repeat that number. Unless you do something to protect your health, the odds are against you. Only 7.6 percent of people who suffer a complete cardiac arrest outside of a hospital setting survive long enough to be discharged. One-half of individuals who die from cardiac arrest are under the age of sixty-five. Just because you are not in your eighties doesn't mean you don't need to take care of your arteries. And a most significant statistic: people with high cholesterol have about *twice* the risk of heart disease as individuals with lower levels.

As we continue this journey, I believe you will begin to think differently about eating certain bad foods. You will

visualize in your mind exactly what a particular item is going to do to you. I guarantee you will have less and less desire for it the more you are reminded what it is doing to your body.

There are two types of people. Type one will hear the statistics and do something with the information. Type two will hear the numbers and continue with life as usual. Which are you?

“If only I had known.” Now you know.

► Action Steps

1. Get your blood cholesterol checked today.
2. Record your numbers and compare them with the healthy range to see where you fit. Circle any numbers that fall outside the healthy range—these are your warning signs.
 - _____ : total cholesterol (healthy range below 200)
 - _____ : LDL cholesterol (healthy range below 100)
 - _____ : HDL cholesterol (healthy range above 40 if male, above 50 if female)
 - _____ : total cholesterol/HDL ratio (healthy range below 3.5)
3. If you know anyone on a statin, ask them to let you see the prescription insert that came with the medicine. Read the side effects.
4. Eat three fruits with your breakfast for the next week.