# YOU TELL THEM: IT'S IN THEIR HEAD DR. JAMES SCALA, Ph.D.

# Cholesterol

## TOM'S STORY

"I noticed that I would get a pain at the base of the front of my neck when I played a hard game of tennis. Since I was in good condition, I just thought it was aging; after all, I had just turned 50. One day while playing tennis with a doctor friend, I got the same pain, so I asked him what he thought it was. He asked me if I had noticed any congestion or indigestion, and since I hadn't, he advised stopping tennis and exercise, in general, until the cause of the pain was determined. He told me to come by his office so he could take some tests.

About 10 days later the doctor gave Tom an EKG, took blood tests, and listened to his heart from every imaginable angle. After reviewing the test results, he recommended Tom to see a cardiologist and have an angiogram.

In preparation for the angiogram, the cardiologist reviewed Tom's EKG and blood work which showed his cholesterol level at 325. Tom was overweight, though not seriously, but he had carried this extra weight for many years. The cardiologist scheduled him for an angiogram, a technique in which the doctor can see any clogging in an artery or vein around the heart. In searching the arteries around the heart, a long catheter, or tube, is inserted into either a large vein in a leg or arm. A skilled cardiologist works the catheter up to the area near the heart. During this procedure the patient is x-rayed, which allows the doctor to see how the catheter is progressing on a video. Once the catheter is in the correct position, the surgeon releases a dye that shows up on the screen, because it's opaque to the low energy X-rays. He can then watch the dye enter and leave the cardiovascular arteries and the heart on video, and record it to play back as often as necessary.

An angiogram permits the cardiologist to decide how clogged or occluded the various arteries are around the heart. In addition, the surgeon can assess any damage done by a heart attack. Angiograms are slowly being replaced by other techniques which use ultrasound and other methods. However, when Tom was being analyzed, an angiogram was the only method available.

#### BACK TO TOM

"I had prepared myself for the worst, but it was worse than I expected. The doctor wanted to schedule me for a quadruple bypass at the first opening. I told him I'd like to try diet and exercise. He said I wouldn't live long enough to reverse the damage. Three of my arteries were about 90 percent occluded, and another one was about 75 percent occluded. He said I was lucky I hadn't had a heart attack."

Tom had the bypass. He didn't like it, but by the time he got home, he realized he could breathe better. The hospital had an exercise and diet program for bypass patients, so Tom joined. His wife Margo went to the classes with him.

## **BYPASS SURGERY**

A bypass is a miracle-made routine. As its name implies, it is a surgical technique in which a partially clogged artery

leading into or away from the heart is bypassed by a piece of vein usually taken from the patient's leg. Although it has become routine, bypass surgery is deep-chest surgery and is very, very serious. Usually it's performed after the patient has had a heart attack. In a post heart-attack patient, bypass surgery is much more serious, because the risk of an attack during the procedure hangs over the operating room. However, less than 10 percent of patients die from the surgery. All things considered, that's an impressive record. Tom was fortunate that an alert doctor discovered his situation before he had a heart attack.

#### BACK TO TOM

Bypass surgery is almost routine in many large hospitals. While Tom's chest was opened up, the surgeon decided on a fifth bypass, so Tom's quadruple bypass became a quintuple bypass. Post-operative recovery wasn't fun for Tom, but it was normal by medical standards. In spite of clogged arteries, he was in good physical shape. His heart was strong and there was plenty of collateral circulation. In a strange way, Tom's circulation was better after surgery than it had been ten or more years previously.

"In a few days I could tell that it took less energy to do things. Sure, I ached from my scars, my legs hurt from where they took the veins, but I could still do things with less effort. I guess I had grown accustomed to working with only partial circulation." Tom tells it as if it were yesterday.

Three years later, his doctor jolted his attention. Again, Tom tells it clearly. "My doctor asked me if I wanted another bypass. I looked at him as if he was joking. Then he told me it was no joke. My cholesterol had gone up to 300. Looking back, I realize that I let my job dictate my life. My exercise had dropped to almost zero. I had breakfast meetings at least twice a week, lunch out everyday, and dinner at least three out of five evenings in restaurants. Although I usually ordered fish or pasta, the sauces were there, wine with most meals, and face it, I had added a few pounds." Tom tells it as if he was blaming himself, but his experience is typical.

# GOOD NEWS: BAD NEWS ABOUT BYPASS

Most people who have bypass surgery are candidates for a second round in five years. This happens because bypass surgery corrects a problem, but it doesn't do anything about the cause.

Tom had everything against him. Sounds strange, but think about it. He had an aggressive personality, a high-tech sales job, was on the road 30 percent of the time, and his dinner and other meetings were routine. Besides all that, he had lots of internal stress with his drive to constantly improve his performance.

In addition to his lifestyle, Tom is also representative of many people. His cholesterol and triglycerides have a tendency to elevate. His body probably doesn't make enough HDL cholesterol (good cholesterol), or his body lacks the ability to remove the LDL-cholesterol (bad cholesterol).

Tom's dietary intentions were good, but the road to hell is paved with good intentions. Cholesterol and triglycerides are mostly dietary-fiber and dietary-fat problems with excess calories, often from sugar or alcohol, thrown in. Taking care of the fiber usually helps to bring the others into line.

#### BACK TO TOM

"I was embarrassed. If the doctors objective was to scare me, he succeeded. I told him I'd get on the diet right away and start exercising. He said he'd give me three months and then he'd like to try medication. It was a new challenge for me," Tom said, with his blue eyes flushing with excitement.

"My wife had told her friend where she works about my problem. Her friend sold Shaklee products and agreed to speak with me about a new product they had for lowering cholesterol. I figured I had nothing to lose and everything to gain." He laughed as he recalled that evening.

"I spent \$175 after seeing a short video and scanning a book on cholesterol by Bruce Miller. Margo and I went home with Fiber Plan, Vita-Lea, EPA, vitamin C, Instant Protein, and Meal Shakes. If cost and success were proportional, I'd be a winner."

Tom worked Shaklee into his life. He used Fiber Plan at each meal as directed and a fourth of a serving at night, because it made him feel full. Meal Shakes were substitute meals to help him lose weight when he was on the road or eating in his office. He didn't like Instant Protein, but Margo made him take it in the morning when he didn't eat.

"In three months, I had my follow-up visit. I had my blood taken a week before so it was on the doctor's desk when I walked in. The doctor looked at me and asked me what I had been doing, then he showed me my results. My cholesterol had dropped from 300 to 235 in three months!" Tom tells it like he was bragging about a new child. "Not only that, my HDL cholesterol had gone up from 43 to 55 and my triglycerides were down from 300 to 200. My doctor was happier than I was." Tom was in his element; he had competed and won, but it wasn't enough.

He agreed to have blood tests taken every three months. The follow-up test three months later came in with a cholesterol reading of 200, and three months after that, it was 190. His HDL cholesterol remained between 50 and 55. Tom's triglycerides have dropped and have remained at 150.

# WHAT WENT ON HERE?

Tom, like many men and women, let his health slip away. Diet for him was a series of good intentions. He'd order chicken or fish, eat some salad, and think that was enough. Well, it's not.

Fiber Plan is formulated with dietary fiber that is especially good at binding the bile acids and dietary cholesterol. It binds them tight enough to remove them from the body in the stools.

An average adult requires from 30 to 45 grams of fiber daily. On average, we get less than 13 grams daily. In short, we don't come within a country mile of what we need. So, people like Tom must either change their diet beyond what is practical for them, or add back the missing fiber. That's what Fiber Plan does. Simple, isn't it?

We still need a meal to provide protein, calories, some pleasure, and nutrients. Our food contains about 6 grams of fiber per 1,000 calories. So, to get the minimum, you'd have to eat 3,000 calories daily. Unfortunately, if we ate that many calories daily, we'd all be fat, except for a very small minority.

Most women get along being a tad overweight on less than 2,000 calories, and most men, also a tad overweight, on less

than 2,500 calories. Therefore, we get a little less than half the fiber we require. So we've got to add it back, and we can't do it just once in awhile. We've got to do it every day of every year.

Two other parts of this story are often overlooked: they are the HDL cholesterol and the triglycerides. You want the HDL cholesterol to increase and the triglycerides to decrease. Fiber helps accomplish this, but another supplemental oil, EPA, gives them a boost.

Once more, our diet is the problem. EPA is an omega-3 oil and our only meaningful dietary source is fish. Unfortunately, Americans don't eat much fish—less than half an ounce, on average, daily. We add injury to this insult by eating an excess of competing oils from grains that are added to the animal fat we get from meat, dairy, and poultry products and baked goods. So, increasing omega-3 oils calls for either dramatic dietary changes, which are close to impossible for all but a few, or using EPA supplements. In my opinion, it is foolish not to accept the products of our technology to improve our health and prevent illness. Supplements are an outcome of our technology that enables us to make up our dietary shortfalls.

#### TOM'S PLAN

Tom continues his supplement plan, Fiber Plan with meals, and three EPA capsules daily. His cholesterol has settled in at about 190, with his HDL averaging 50, and his triglycerides are lower, nearing 150. He's probably more healthy than he was 20 years ago. He also exercises by jogging. Tennis is fine, but it's seldom regular enough or consistent.

His use of the Meal Shake to keep his weight in line is practical. He has added Daily Fiber Blend to help his regularity. Also, during this time he has become a user of other supplements, including Vita-Lea, vitamin C, vitamin E, and sometimes B-complex. He describes his use of B-complex this way: "I seem to relax better when I use it. My doctor says I should relax more."

# **RUTH AND JIM**

Ruth and Jim decided that the best way to share a good thing was to make it a group effort. They rounded up 15 friends and asked a direct question: "Who wants to improve their health?" All hands went up. "All you've got to do is purchase this product, Fiber Plan, and take it with each meal. No other changes, just do whatever you're doing. To start, you'll need to have a blood test for cholesterol and then again after six weeks." Everyone stuck to the plan and followed the directions.

Ruth is a former high-school science teacher and likes to compile numbers. She wasn't interested in what people said happened, she wanted to see the results. Her experiment produced the following results:

Average Blood Cholesterol Change in Six Weeks

Before After Total Drop Percent 244 220 24 11%

This tells a good story. For example, a cholesterol of 244 is a moderate risk for heart disease for someone 50 years or

older, but a high risk for heart disease for someone 35 or younger. Therefore, she brought the older members into a low risk, but the younger members were moved into a moderate risk. Some individual numbers prove a point.

Five Individual Results Six-Week Change in Cholesterol

Before	After	Drop	Percent
260	234	26	10%
256	224	36	12%
146	116	30	20%
389	339	50	13%
228	191	37	16%

Five of Ruth's volunteers illustrate two points which are especially instructive: all of them got positive results, and their health improved. So, her proposition was fulfilled.

The person with the lowest starting cholesterol (146) got excellent results. She proved that no matter how good your health is, it can still improve.

The person with the highest cholesterol level, 389, moved his risk in the right direction. His next measurement, after another six weeks, produced a similar reduction, and now, almost a year later, he is within easy distance of 200.

Unfortunately, not everyone sticks closely with a program, and Ruth pointed out what I already knew. "Some people admitted that they didn't stick with the original plan. They only took the Fiber Plan twice a day and often skipped some days." But, that's real life for you. I'm delighted because everyone got good results and a few of them got spectacular results.

# IS IT EVER TOO LATE?

One problem in the United States is that we are bombarded with information. To sell articles, a journalist only needs to wait awhile and an expert will emerge with a contrary position. It didn't take long for experts to come out and say that they don't know if Fiber Plan helps older people, say over 55 or 60, to lower cholesterol. They went on to say, "why should we try to get cholesterol down, if we don't know if it helps?"

Hogwash! The experts could have said: "It's bound to help, but we don't know by how much. In fact, we aren't sure how to measure the good that it does. We only know that high cholesterol shortens life and doesn't lengthen life. So there's much to gain and nothing to lose."

# ABOUT THE AUTHOR

James Scala was educated at Columbia (B.A.), Cornell (Ph.D.), and Harvard (Post-doctoral studies) Universities.

He has spent his career in research, research management, and teaching. His accomplishments include over fifty published papers on research in nutrition, biochemistry, and biology. His teaching includes courses for undergraduate, graduate, medical, and dental school students.

As a research manager, Dr. Scala held positions at Procter and Gamble, Owens-Illinois, Unilever, General Foods, and was the Senior Vice-President of Scientific Affairs for the Shaklee Corporation. He now devotes his energies to writing and speaking for the general public.

Dr. Scala lives with his wife Nancy in Lafayette, California. For recreation, they sail the ketch La Scala from its home port on San Francisco Bay.