

# **CASES; An Inside Look at the Arteries Brings a Pleasant Surprise**

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I have had cholesterol scores of more than 300 for decades, and several doctors have urged me to take statin drugs, but I had a bad experience with Lipitor, the only one I tried.

Recently, my total cholesterol jumped to 380, and I told my doctor I would try another, but only if he could show me evidence that my arteries were actually clogging.

He called a friend, a radiologist experimenting with a new technique, a substitute for coronary angiograms, which can cost \$4,000 or so and require a day in the hospital.

The radiologist, Dr. Burton A. Cohen, slowed my heart with a beta blocker, injected dye into my veins and put me through his fastest CT scanner in less than 20 minutes, taking pictures of "slices" of my heart.

I was afraid that I would discover that I had serious narrowing, or at least a high calcium score -- a measure of the calcium bonded to cholesterol in plaque. Scores in excess of 400 predict imminent heart trouble.

Instead, to my astonishment, my score was 11, just one point above the negligible risk category. The computer found just two pinhead-size bits of calcium.

The scan itself was just plain fun. The screen showed what amounted to a black-and-white television picture of my torso, as seen from my feet, the way it would look if it were fed through a salami slicer (Picture No. 1). The white rectangle at the top of the screen was my breastbone. The oxtail-shaped thing at the bottom was a vertebra. The chambers of my heart were in the middle, two ovals pressed together. Following Dr. Cohen's finger, as each slice lifted away, I could see the heart widen. The coronary arteries that fed it -- one-fifth of an inch or less in diameter-- appeared on its edges.

"They're just white circles," I said.

"Circles is just what you want," he said. "If they have irregularities or they're cut off, that's bad. This looks real nice."

After Dr. Cohen had followed each circle up to the aorta, he tapped some keys, and the computer reassembled the slices into the "angiogram" view -- a transparent gray heart (No. 2). My arteries were a whitish web curling around it like spaghetti, and I could see the two calcium specks -- brighter, but small and unthreatening.

He tapped some more keys.

"This untangles the spaghetti," Dr. Cohen said (No. 3). "It's called the 'rotisserie view.' It straightens out each artery like a barbecue spit."

There they were, a set of clean white pipes.

"Obviously," the radiologist said, "I have a vested interest in this. But I think this technique may turn out to be better than angiography."

"That only shows you the lumen, the straw you put the dye through. With this, you can see the walls, too, which is where the soft plaque sticks."

For comparison, he dialed up another patient's scan (No. 4). The clots of calcium in the tubes looked like a ghostly pileup in the Holland Tunnel.

"Those are really ratty vessels," he said.

The man's score was 1,360. He had high cholesterol and chest pain, but had resisted angioplasty. After the scan, he had angioplasty and a stent.

I thanked the doctor and walked back to work through Central Park, just floating over the paths. Twenty years of feeling guilty, of thinking that every time I ate a scoop of Cherry Garcia I might be cheating my children out of growing up with a live father, had suddenly been lifted.

My own doctor seemed pleased, in a rueful way.

"You have some mazel, as we say in the business," he said, using the Yiddish word for luck. "Or good genetics, which is really the same thing."

Of course, this makes me a cardiologist's nightmare, the boastful exception that gives other guys the excuse to eat bacon and keep smoking. And when I reach 52 next year, I could still drop stone dead as my paternal grandparents did at that age.

Nearly half of all heart attacks are in people with normal cholesterol, and about 10 percent are caused by arterial spasms, unrelated to atherosclerosis.

But the scan did demonstrate something that skeptical patients like me have long argued. Heart disease is unpredictable, and dumb luck is a much bigger part of the picture than the medical industry, with its expensive machinery and scientific numerology, likes to admit.

As this technology improves, radiologists, who do these scans, and cardiologists, who do angiograms, will argue. And with scanners leasing for \$40,000 or more a month, the scrapping for patients will sharpen.

Nor is my doctor letting me off the hook after my small contribution to the struggle.

"I still want you on a statin," he said. "And Burt agrees. You got lucky. But you still shouldn't walk around with those numbers."

"That isn't fair," I said. "I feel like I just won the marathon, and you're telling me I still need to get more exercise."

"I'm telling you that you just won the marathon, and you still need life insurance," he said. "I'll give you a prescription."

I'm thinking about it -- but with a little less urgency than before.