

# Coronary Plaque Meltdown

*Interview with Dr. Caldwell Esselstyn, Jr (by the Cleveland Medical Journal)*

*Cleveland Clinic surgeon, Caldwell Esselstyn, MD, believes coronary artery disease (CAD) and a host of other illnesses can be prevented and even reversed by eating a simpler diet. From his research he feels confident that he has the scientific evidence to prove that this nutritional approach can stop the progressive narrowing of the coronary arteries and causes the gradual meltdown of these blood flow-impeding, obstructive plaques.*

—the Editor



Caldwell Esselstyn, Jr., MD

## **Why do you believe a change in diet could prevent and reverse heart disease?**

I have come to believe that coronary artery disease, breast cancer, and other illnesses are diseases of Western culture and not genetic events. The root of these Western killer diseases is our rich, high-fat diet, characteristic of our industrialized society. Wherever you find this rich, Western diet, you will also find Western killer diseases. We didn't always have such a rich 40% fat diet in this country, and we didn't always have heart disease either. Heart disease is a relatively new phenomenon in Western society. It is estimated that in the 1920s only one heart attack occurred per year in an average-size American hospital. Today we see 1.5 million heart attacks every year in the United States alone. And yet coronary artery disease is not necessary. It really does not need to happen. People must understand that significant alterations in diet can and should spare them from the ravages of this disease.

## **What is the difference between your approach and that of Dean Ornish, the California physician, who teaches very low fat diet and lifestyle changes as an approach to treating heart disease?**

My approach allows the use of cholesterol-lowering medications as well as a very low-fat diet to offer the optimum conditions to keep the disease from progressing. Dean Ornish does not use any cholesterol-lowering medications and emphasizes meditation, relaxation and group exercise. I have no objections to those additions, but I think that it is important to note that we have demonstrated that these additional lifestyle changes are not essential to achieving results.

## **What brought you, an eminent breast and thyroid surgeon, to a study of diet and heart disease?**

So much of what we do in medicine, especially surgery for cancer and

heart disease, involves a mechanical approach to a molecular or biochemical problem. I realized that I wanted to do more than cut out diseased tissue from the body. I wanted to make people well and contribute to their healing.

As a breast surgeon, I began to realize that breast cancer is not genetic. It is environmental. Think about it: 80% of patients with breast cancer have no family history of the disease. Only .5% of patients have a really strong genetic component. And if it is environmental, then we can do something about it, can't we? In fact, there are many cultures where breast cancer rarely ever occurs. But when people from these societies move to the Western culture and change their diet and lifestyle, then their chances for breast cancer increase, and often dramatically.

### **How can you be sure that it is diet? Aren't there other differences between such societies?**

That's a good question. But there are meta-analysis of over 100 studies in animals that clearly show the relationship of a high-fat diet and breast cancer. Also, in Japan, for instance, in the 1950s only about 11% of the calories in an average person's diet came from fat. Since then the breast cancer rate has increased 60%, and the rate of coronary artery disease has gone up by more than 600%. What has changed? They have adopted a more Westernized, high-fat diet to the extent that now almost 35% of the calories eaten in Japan come from fat.

Although my original focus was breast cancer, I began to realize that it could take up to 70 years to complete a dietary study of that disease to get hard data. I turned to coronary artery disease because it is the leading killer of men and women in our country. In 1985 I began working with 18 patients who were severely ill with heart disease. They all had documented angiographic evidence that at least three coronary vessels were affected with significant plaque buildup. When they came to me, eight of these patients had already had bypass surgery at least once, and a number had undergone angioplasty, the balloon treatment; several had had strokes.

My idea was to show that when total cholesterol was no higher than 150 mg% the disease was no longer able to progress, and it might even be reversible. The goal was to reduce the average cholesterol, which was over 240 to below 150 mg%.

### **How did you accomplish that?**

I prescribed an eating program combined with cholesterol-lowering medication. For the first five years, I personally reviewed my patients' food diaries every two weeks. I reviewed every morsel each patient had eaten. They also had a lipid profile drawn every two weeks. This covered their total cholesterol, their LDL and HDL and their triglyceride levels. I would call each

person at home with the results of the lipid profile, and then discuss any necessary modification of their nutrition or medication to bring down their cholesterol levels.

#### **The results?**

Long before we expected to notice any change in the amount of plaque blocking the arteries, the patients noticed marked improvements in their angina, often within weeks, as the oxygen-carrying capacity of their blood increased and we got the fat out of their blood. Feeling better immediately tended to hook these patients on their new dietary lifestyle.

The angiographic data suggests *no significant progression* in the blockages of these patients. In fact, the blockages are stable or have *actually reversed* themselves. A meltdown of the plaque has taken place. The patients' angina is less frequent and less severe. They take less medication. The average total cholesterol level throughout the study was 145 mg%.

No new coronary occlusions have occurred in this group. Smaller, newer plaques that can rupture and block off an artery causing a heart attack or death are no longer being formed. With the lipids dramatically lowered, the innermost lining of the artery, the endothelium, is stabilized.

#### **How does your group's experience differ from the ordinary population of heart disease patients?**

Ordinarily the disease continues to progress because patients are still being fed the same diet that gave them the disease in the first place.

I still go over each patient's diet diary every month. I am a very uncompromising task-master. I want my patients to understand that perhaps more important than having a bypass or angioplasty is removing those dietary ingredients that gave them their disease.

#### **What are your dietary guidelines?**

It's simple. No fat, grease or oil; the only dairy products allowed are non-fat yogurt, skim milk and egg whites. No flesh foods such as meats, fish, or

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poultry—nothing with a face, nothing that has a mother. It's a vegan diet, not a lacto-ovo vegetarian diet. You can eat all the fruits, vegetables, beans and grains you want. I have followed this diet myself since 1984. My cholesterol level dropped from 195 to 119 mg% and has stayed there. I know it works.

**The patients in your study had a guru to keep them on track. How would you expect the rest of us to stick to it?**

Envision what fat does to your body. Every one of the 100 trillion cells that make up the human body has a membrane 5/1000<sup>th</sup> of a micrometer thick, and through this membrane all the interchange for life occurs. If you surround that membrane with the products and byproducts of a typical American diet you injure it and destroy it. It becomes stiff, thickens and becomes leaky; it can no longer carry on its function in an optimal fashion.

This means that every meal of a typical Western diet causes metabolic injury. The injuries accumulate over decades until disease occurs—coronary disease, adult onset diabetes, hypertension, gout, obesity, cancers of the breasts, prostate, colon, ovary and so on.

**Isn't a vegan diet somewhat extreme? What about moderation?**

*Moderation kills.* You wouldn't say it's OK to have a moderate amount of arsenic, would you? Every study says that the 30% dietary fat level so often recommended by dieticians and physicians alike, compared to a 10% fat level, leads to *greater* angina, *more* coronary artery disease, *more* congestive heart failure and to *more* deaths. Until we get our mind-set altered we are going to continue to see patients ravaged by additional and unnecessary disease.

**Where do you go from here?**

Our approach does not utilize highly expensive resources, and it is *curative*. This is a contrast to the mechanical approach which utilizes bypass surgeries and angioplasties which are only *temporary* helps often requiring repeat bypasses and angioplasties at additional risk and expense.

I plan to submit my findings to peer-reviewed journals, present my data at medical conferences and finish writing my book about the reversibility of many of our Western diseases by simplifying our lethal Western diet.

**When was the last time you had a hamburger?**

April, 1984. I must admit, though, that on every *New Year's Eve* I do have a double Reese's peanut butter cup.