## **SPECIAL REPORT**

## Reversing Coronary Artery Disease



Stephen W. Parcell, ND Co-Owner, NatureMed Clinic, LLC

Are you interested in slowing the aging of your cardiovascular system? What if you never had to take your blood pressure or cholesterol medicine again? How great would it feel to take control of your health? What if this could be done with natural substances and diet? Well, it can. I've spent years researching the effects of nutraceuticals on the buildup of plaque in the risk for heart attacks. I've discovered some amazing information.

I have helped many people just like you reverse high blood pressure and high cholesterol and even reverse plaque build-up in the arteries. Many of these patients didn't think anything would help. I'm co-owner of NatureMed clinic an integrated medical practice specializing in evidence based complementary and alternative medicine.

This special report will provide you with a great deal of information and education about all the facts you need before you do anything. So turn the page and let's start...

New breakthrough technologies make it possible to visualize arterial plaque, determine the age of your arteries, determine your real risk of a heart attack and stop plaque progression.

Some of these breakthrough technologies include electron beam computed tomography heart scans, carotid artery thickness tests, and some new blood tests such as lipoprotein analysis and the PLAC test. I'll talk more about these in the pages ahead.

Are you disturbed by the idea of a sudden heart attack or stroke that leaves you either dead or debilitated?

Do you wish you could know what your risk of a heart attack is? Are you tired of just hoping that your doctor is doing everything to prevent you from having a heart attack? Have you wondered if there is a more aggressive way to prevent heart attacks? At last there finally is. My program for reversing heart disease is safe and can improve nearly every part of your body. That means you could get improvements in brain function, blood pressure, athletic performance, joint health, vision, liver and kidney function and more. My approach is based on my latest four year book project "Dare to Live: Preventing and Treating Atherosclerosis with Naturopathic Medicine"

Imagine improving circulation and reducing your risk of heart disease. Or how about eliminating chest pain or discomfort with exercise?

Here's why my program works: Since heart disease is not caused only by high cholesterol simply treating cholesterol is just not enough. Did you know that over 200 risk factors for cardiovascular disease (CVD) have now been identified?<sup>1</sup>

Did you know that just as many people with normal cholesterol have heart attacks as those with high cholesterol?<sup>2</sup> We know this from the Framingham study conducted in the 1970s:

Framingham Heart Study - 26 year follow-up data

80% of the heart attack patient population had similar cholesterol levels as those who did not experience a heart attack.

In fact, 50% of the people who had a heart attack in this study had normal cholesterol! $^3$ 

Whether you have been told that you have atherosclerotic plaque, coronary heart disease, or you just want to prevent a heart attack, we can help.

See if this scene sounds familiar to you:

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<sup>1</sup> Castelli W, Lipids, risk factors and ischemic heart disease. Atherosclerosis 1996; 124: S1-S9.

<sup>2</sup> Ibid

<sup>3</sup> Ibid

You have recently had your annual visit with your family doctor and you get a call from nurse a few weeks later. She/he says, "your tests are normal", but you wonder if everything's been done to prevent you from getting a heart attack.

Maybe you have been taking your statin drug (Lipitor, Zocor, etc.) for years but wish there was a way to see if it's really working to reduce plaque or if there is more that could be done.

You may have just heard about a college friend who died suddenly of a heart attack. You don't understand how this could happen to him because he was very healthy.

How could this happen? Why couldn't someone have prevented this from happening?

Or maybe you heard of someone who recently got a checkup including a treadmill test, passed everything with flying colors but had massive heart attack only months later.

There's got to be a better way...

Now imagine knowing your "arterial age" or knowing how much plaque you actually have in your coronary arteries. Imagine a program that checks virtually every known risk factor and includes periodic monitoring and follow up. Imagine even not needing your prescriptions!

What's more, since my program can treat virtually all of the risk factors at once you get much quicker (and more permanent) results than those other temporary fixes.

My system for reversing heart disease is the most advanced of its kind. In fact, my protocol is perhaps the most comprehensive heart disease reversal program out there.

And because heart attack prevention program is such advancement, it's important to clarify what it involves. That's why, inside this report, I want to help you separate fact from fiction. High cholesterol and high blood pressure are two of the most important reversible risk factors for heart disease and stroke. The problem with heart disease is that even though you may be at high risk, you may not have any symptoms.

An example is high blood pressure which has been aptly named "the silent killer. It's called the silent killer because you may have no symptoms at all.

A heart attack may be your first and only symptom. Unfortunately many people do not survive this "first symptom."

First, in order to understand how my program helps remove plaque from arteries and reduce the risk of a heart attack it's important to understand more about how heart attacks happen in the first place.

Plaque formation in an artery is simply a "response to injury". The cause of the injury can be everything from smoking - to stress - to high cholesterol. Plaque formation can be thought of as a short-term adaptation at the expense of long term function, meaning that while the plaque may protect the artery in the short term it causes more problems down the road, such as rupture, narrowing and stiffening.

There are many risk factors for heart disease, over 220, in fact!<sup>4</sup> Here are some that are commonly known: depression, anger, high stress lifestyle, air pollution exposure, low vitamin D, elevated blood viscosity (thick blood), oxidative stress, dietary fat imbalances, low vitamin K, and numerous chemicals in the blood that cause damage to the artery wall.

When arterial plaque ruptures, a clot usually forms. If this happens in one of the arteries that feeds the heart, blood flow can be blocked and a heart attack can be the result. When a plaque ruptures in the arteries feeding your brain, a stroke can result.

What is plaque made of? When we talk about plaque, we are talking about the disease called atherosclerosis (previously known as hardening of the arteries).

<sup>4</sup> Castelli W, Lipids, risk factors and ischemic heart disease. Atherosclerosis 1996; 124: S1-S9.

Atherosclerosis simply means "scarring of the artery." The plaque is the scar. Doctors call this scar an "atheroma." This is the area of the artery which is diseased.

Plaque is composed of lipids (fats and cholesterol), calcium, white blood cells, muscle cells, and connective tissue. Plaque is metabolically active and can even be hotter than surrounding tissues. White blood cells enter and modify the plaque by becoming part of the plaque structure and by secreting enzymes that degrade the fibrous cap that covers the plaque.

The formation of plaque starts in early adulthood and progresses at varying rates depending on many factors. Generally, as plaque grows more calcium accumulates within the structure of the atheroma.

Why is plaque bad? The main problem with plaque is that it can rupture. If it ruptures, a blood clot will often form causing a heart attack. Plaque can also restrict blood flow by narrowing the artery. This can cause chest pain, also known as angina because it causes a blood flow limitation. If you have chest pain chances are high that there is a blood flow limitation to your heart.

To slow down or reverse the disease process we have to address the cause. The ultimate cause is almost always something called endothelial dysfunction. Endothelial dysfunction (ED) essentially means that the cells that line your artery wall are not working correctly. This leads to an inappropriate and excessive response to injury and results in plaque formation. Cholesterol, especially elevated levels of low density lipoprotein cholesterol (LDL-C) is one factor out of many that can cause ED.

The concept of ED should make sense because, after all, our liver naturally makes cholesterol and we need to make hormones and build cell walls. So, it makes sense that addressing cholesterol alone is going to fall short.

Maybe you've heard the myths that cholesterol has nothing to do with heart disease? Well, this is not backed up by good science. However, cholesterol myth proponents do have a good point... it's not cholesterol itself that causes heart attacks it's the lipoproteins, a relative of cholesterol that damage blood vessels. Lipoproteins carry the cholesterol and determine whether the cholesterol does good or bad things to your vessels. As an example, Apolipoprotein A-1 (ApoA-1) is a lipoprotein that forms HDL (good cholesterol). ApoA-1 is an antioxidant, improves ED and keeps your arteries healthy.

Figure 1

This is a Lipoprotein



Apolipoprotein B (Apo-B), on the other hand, is a lipoprotein that carries the same type of cholesterol but there's a big difference....Apo-B forms LDL(bad cholesterol)! So you see it's all about how the cholesterol is packaged. On the figure above the outer shell of the lipoprotein determines whether the cholesterol inside does beneficial or harmful things.

Many other factors such as inflammation and high blood pressure are also involved in plaque formation. Lowering just the cholesterol only prevents approximately 20 percent to 40 percent of heart attacks.<sup>5</sup> This still leaves 80 percent to 60 percent of additional prevention to work on.

Because cholesterol is a significant component of plaque it became a major focus of drug research. Though elevated LDL cholesterol can accelerate atherosclerosis it is not the only cause of this problem.

<sup>&</sup>lt;sup>5</sup> National Institutes of Health Consensus Statement. http://consensus.nih.gov/1984/1984Cholesterol047html.htm

Some people with high cholesterol never get heart disease and others with normal cholesterol do!

Plaque has a life of its own and goes through many life stages. Generally, soft plaque is newer and more unstable (likely to rupture) than hard plaque. Soft plaque is of great interest because it is the most dangerous. Mixed plaque is also more likely to rupture. In addition, total amount of plaque and rate of plaque growth also predict plaque rupture and heart attack risk. It's our job to slow down the growth of plaque and reverse the downward spiral toward a heart attack.

But before I explain all the details of how the Parcell Protocol works, it's important to talk objectively about the traditional options available.

There were essentially only 4 different choices (until now):

1) Exercise and Weight control

- 2) Smoking cessation
- 3) Lowering cholesterol with prescription drugs
- 4) Controlling blood pressure with prescription drugs

Let's discuss option #1 -Exercise and weight control:

Nearly everyone knows that exercise, diet and weight control help prevent heart attacks, and this is the most common thing people try to do. But, there's a catch, you actually have to do it, and this requires constant commitment to keep doing it. As part of our program, you will get a yearlong exercise plan, daily workouts and recipe ideas, meal plan ideas, detailed diet plan, comprehensive labwork, and body fat analysis with follow up appointments.

I probably don't have to tell you that most people don't like diets that don't work and exercise plans that either fall short or are unrealistic.

Next is smoking cessation- If you are a current smoker and you plan to stop that's great. However much more may need to be done to bring your arteries back to health. What's more, if you have extensive plaque, exercise could even cause a plaque rupture and a heart attack.

Another method is using cholesterol lowering drugs. Also known as statins, these drugs address only approximately 30 percent of the problem and can be expensive. Also, many people find that they cannot tolerate these drugs. Don't get me wrong-I am not against statins it's just that a lot more can be done. There is even new evidence about a non prescription, naturally occurring statin that may reduce heart attack risk by almost 50% and be better tolerated than prescription statins.<sup>6</sup>

The fourth conventional option is blood pressure control. Most doctors prescribe blood pressure drugs for this. You may need to be on this medication for the rest of your life. Many patients wish that these drugs were unnecessary.

Also blood pressure medications may cause unpleasant side effects like fatigue, chronic cough and dizziness. This may also involve multiple visits to your doctor to refill the prescriptions.

The other problem is that these conventional methods use prescriptions only. My plan uses all means necessary to achieve plaque reduction.

<sup>&</sup>lt;sup>6</sup> Lu Z. Effect of Xuezhikang, an extract from red yeast Chinese rice, on coronary events in a Chinese population with previous myocardial infarction. Am J Cardiol. 2008 Jun 15;101(12):1689-93. Epub 2008 Apr 11.

Okay, So That Leads Us to The Most Comprehensive Natural and Effective Method now Available to Reverse Arterial Plaque ....

The NatureMed heart attack prevention and atherosclerotic plaque reversal program.

I feel that this is the most comprehensive and effective program out there.

Let me explain.

One of the major benefits of my program is that plaque burden will be comprehensively evaluated and then all possible causes of plaque and endothelial dysfunction will be investigated.

One of the major benefits of my program is that all the modifiable risk factors will be addressed and dealt with through nutrition, lifestyle modification and nutraceuticals.

Numerous Breakthrough Discoveries That Changed Everything

Using sophisticated new technologies we are able to accurately visualize the plaque in your arteries and thereby gauge your progress (or lack thereof) as time goes on.

In addition, we have new tests for analyzing cholesterol that look at particle size and number. It turns out that particle number is much more important than just your cholesterol level. Let's talk about some of the important breakthrough technologies I referred to above.

EBCT: Electron beam computed tomography (EBCT) is used to determine coronary calcium. The calcium score is calculated with special software. EBCT can accurately detect coronary calcium, which indicates the presence of coronary atherosclerosis. Coronary calcium predominantly consists of calcium phosphate. This calcium is strongly associated with the total plaque burden because calcium makes up about 20% of plaque. The greater the calcium score, the greater the potential for increased numbers of vulnerable plaques which can rupture and cause heart attacks.<sup>7</sup>

CIMT: The carotid intima-media thickness (CIMT) gives me an idea of how much atherosclerosis is in other regions of your body. An increased thickness of the carotid IMT has been shown to be directly associated with an increased risk of heart attack and stroke in adults without a previous history of cardiovascular disease. Thus, CIMT has been proposed as a risk factor that may be included in the assessment of cardiovascular risk.<sup>8</sup>

Lipoprotein analysis: Apolipoprotein B (apoB) blood levels reflect the concentration of disease causing lipoproteins very low-density lipoprotein (VLDL) and low-density lipoprotein (LDL), whereas non-high-density lipoprotein cholesterol (non-HDL-C) levels reflect the concentration of cholesterol transported by these particles. The concentration of lipoprotein particles measured by apoB is more predictive for development of CHD than the conventional method of measuring cholesterol cholesterol carried by these particles.<sup>9</sup>

PLA-2 test (the PLAC test): The PLAC test is a blood test that measures the level of  $Lp-PLA_2$  (Lipoprotein-associated Phospholipase  $A_2$ ), an enzyme associated with the inflammation of your arteries. Increased levels of  $Lp-PLA_2$ increase your risk of having a heart attack or stroke. When arterial walls become inflamed, as they do in active atherosclerosis, your body produces the enzyme  $Lp-PLA_2$ .

If the amount of  $Lp-PLA_2$  is high, this may indicate that the plaque is more likely to rupture. That could result in heart attack or stroke. When you have an infection in a cut, the cut becomes inflamed and hurts. But your arteries do not have the same type of pain receptors and are unlikely to hurt when they are inflamed. You could be walking around with plaque and not even know it!

<sup>7</sup> Haber, R. et als., Correlation of Coronary Calcification and Angiographically Documented Stenoses in Patients With Coronary Artery Disease: Results of 1,764 Patients, JACC2001;37:451-7.

<sup>8</sup> Baldassarre D, Amato M, Bondioli A, Sirtori CR, Tremoli Carotid artery intima-media thickness measured by ultrasonography in normal clinical practice correlates well with its atherosclerosis risk factors. Stroke. 2000 Oct;31(10):2426-30.

<sup>9</sup> Pischon T, Girman CJ, Sacks FM, Rifai N, Stampfer MJ, Rimm EB Non-high-density lipoprotein cholesterol and apolipoprotein B in the prediction of coronary heart disease in men. Circulation. 2005 Nov 29;112(22):3375-83

There are over 50 articles that substantiate the usefulness of the PLAC test in evaluating cardiovascular risk. You can access these studies by going to: http://www.plactest.com/pdf/Annotated\_Bibliography\_Spring08 .pdf

In figure 2 the image in the left represents an atheroma or arterial plaque that has ruptured. The image on the right is a plaque that has a stable fibrous cap and is less likely to rupture and cause a heart attack. Phospholipase  $A_2$  levels in the blood are much lower in people with stable plaques.

Figure 2

Ruptured Plaque

Stable Plaque



Blood viscosity: Accumulating evidence suggests that increased blood viscosity is an independent risk factor for atherosclerotic heart disease and its complications.<sup>10</sup> Blood behaves much like catsup coming out of a bottle. Once you get it moving, it really moves fast.

Blood moves sluggishly at low speeds and is more liquid at fast speeds. When the heart is resting between beats (called diastole) it becomes more viscous, and then when the heart forces blood out (called systole), blood becomes less viscous. The main determinant of blood viscosity is red blood cell mass (also known as hematocrit. Though there are other factors that affect blood viscosity, they go beyond the scope of this discussion.

Why is blood viscosity important? High blood viscosity increases the amount of work the heart must do to perfuse the tissues and deliver oxygen. This makes for an inefficient circulatory system and can cause the heart to enlarge to compensate for the extra work. An enlarged heart requires more oxygen and can lead to other problems.

An analogy is the car engine. Motor oil comes in different viscosities...thicker for summer and thinner for winter. High blood viscosity is analogous to putting summer oil in your car in the winter; and the result is poor gas mileage as the engine's efficiency is decreased.

A surplus of red blood cells (the most common cause of elevated blood viscosity) can cause damage to the inner lining of the blood vessels as they constantly bump against the surface. The damage eventually leads to plaque formation (also called a callus). This is an adaptive response to the injury and acts to protect the artery wall in the short term at the expense of long term function. An analogy here is the calluses we get in response to friction on the skin.

High blood viscosity also creates something called shear stress. The easiest way to think about this is that in between heart beats, the blood thickens and swirls around, causing eddies and turbulence. Turbulent blood flow also

<sup>&</sup>lt;sup>10</sup> Becker RC. The role of blood viscosity in the development and progression of coronary artery disease. *Cleve Clin J Med.* 1993;60:353–358.

causes damage to the cells that line your arteries. A good analogy here is the sandbars that form in rivers and streams from eddies and back currents. Plaque tends to deposit most heavily in the low shear regions of arteries, like a sandbar. As plaque continues to deposit, blood flow is further disturbed leading to more turbulence and plaque deposition.

High blood viscosity also contributes to something called injurious pulsatile blood flow. Think of this as a pressure wave with a high peak. Injurious pulsatile blood flow damages the lining of the blood vessel.

Research published in the European Journal of Clinical Investigation suggests that elevated blood viscosity increases the risk for heart attacks and strokes by 342 percent in men with high blood pressure.<sup>11</sup>

I believe heart attacks can be prevented!

Here's how my program works

Imaging: I get a clear assessment of the plaque in the arteries that supply your brain and heart. I use both ultrasound and CT scans for this. Front Range Preventive Imaging does the heart scan and a colleague of mine does the carotid ultrasound. The results are also reviewed by a radiologist.

Blood work: We have contracted with special labs that measures every known risk factor.... things like lipoproteins, homocysteine, CRP, PIA-1, D-dimer, PLA-2, insulin, fibrinogen, heavy metals, hormones, microalbumin, HbAlc and many more. I doubt you have had these done.

Did you know heavy metals can contribute to high blood pressure? Did you know that lipoprotein (a) is ten times more atherogenic (plaque causing) than regular LDL cholesterol? Did you know that there are tests that tell us

<sup>&</sup>lt;sup>11</sup> G. Ciuffetti, et al. Prognostic Impact of Low-Shear Whole Blood Viscosity in Hypertensive Men. *European Journal of Clinical use Investigation*, 2005:35(2), 93-98.

if your plaque is active and high risk versus older and lower risk?

Other tests: I may also use heart rate variability, 24 hour holter EKG, ankle brachial index, blood viscosity testing and 24 hour blood pressure monitoring.

Next, we will sit down and develop a plan for the next 12 months that includes exactly what to do. I provide a report that you can bring to your doctor.

Okay, by now you probably have a few questions. So here are some of the most frequently asked questions I get:

Q. Who Are the Best Candidates For the Program?

A. Anyone who either has heart disease or is interested in preventing it is a good candidate. If you have been told that you have a blocked artery or have severe chest pain you should probably not do this program. What you need instead is to follow up with your cardiologist. If you need a good cardiologist, I can refer you to one.

Q. Will You Work with My Current Doctor?

A. Yes, since I'm trained in western, integrative medicine I am very supportive of an integrative approach and would enjoy working with your current doctor. I will furnish a letter outlining the program and tests if requested.

Q. How Much Does It Cost?

A. Not much really if you compare it to the cost of major surgery or death. The year's worth of visits, tests and nutritional supplements costs only about \$200.00 a month.

Q. Why Didn't My Regular Doctor Run These Fancy Tests You Talk About?

A. This is very common question and the answer has to do with insurance companies not wanting to foot the bill and the lack of a disease prevention mindset. Doctors are trained in hospitals, and hospitals are by nature places where people go once they are already sick. So, most doctors are great at knowing what to do if you have a heart attack but not as familiar with helping people prevent one. Also, cardiologists are pretty busy just trying to keep people alive and busy doing procedures like angioplasties and bypass surgery. Here the other catch... it's really not their fault! Even if your doctor wanted to spend the time, insurance would not pay enough to make it worth their time. This is one reason many doctors just don't accept insurance anymore.

Q. How Long Does the Program Take?

A. The length of time needed depends on the extent of the problem, the patient's health and numerous other factors. I ask for one year to show results. This is the minimum amount of time it takes to be able to accurately measure plaque reduction.Keep in mind that it took a long time to get heart disease so we will not be reversing it overnight. However, usually you can expect to see a reduction in arterial plaque progression within 9 to 12 months.

Q. Will I Need to Start Taking Prescriptions?

A. This will depend on your test results extent of disease and other variables. Most of the disease reduction will be done through diet, exercise, supplements and amino acids. If meds are needed, I have two MDs in our building I work closely with who will handle this. Then after determining how you respond we can develop a long term treatment plan that's best for you.

Q. What Complications and Risks Are There?

A. Rare liver complications may occur but are unlikely. Some side effects can be experienced from blood pressure lowering and cholesterol lowering, but this is also uncommon.

Q. What Do I Need to Do Before I Come in?

A. Please bring all blood work and other tests that you have access to. Please do not start a new exercise program until we check you out.

Q. Is This a Scientifically Valid Approach?

A. Yes, our program is evidence-based. NatureMed, LLC is an integrative and naturopathic medicine clinic. Everything we do is backed up by published studies.

Q. Will This Interfere with the Medicine I'm Taking?

A. It could, but not if implemented correctly and you get the proper tests, guidance and follow up. It's my job to make sure you have success.

Okay, so does all of this make sense to you?

I hope so.

And I hope you've found this report educational and informative. You wouldn't find this kind of straightforward information anywhere else.

Here's what to do now...

Before you put down this report, give us a call today at (303)884-7557 and tell the front desk you got the special report and you would like to schedule a consultation. We'll take care of everything from there.

I've helped a lot of people, just like you, reverse heart disease. And I hope I can do the same for you. But you won't know unless you come in. So why not spend some time finding out if this is right for you.

I look forward to seeing you soon.

Sincerely,

Stephen W. Parcell, ND

My Bio:

Stephen W. Parcell, N.D. is Naturopathic doctor and preventive cardiology specialist. Dr. Parcell is an expert on evidence-based natural medicine, lipoprotein abnormalities and the role overlooked factors such as blood viscosity play in the causation and progression of cardiovascular diseases.

He has published peer-reviewed scientific articles and authored a chapter in an integrative medicine textbook: Integrative Pain Medicine: The Science and Practice of Complementary and Alternative Medicine in Pain Management. Humana Press 2008. His current book is called Dare to Live: Preventing and Treating Atherosclerosis with Naturopathic Medicine to be published by iUniverse Press in 2010.

He is a member of the American College for the Advancement of Medicine (ACAM), American Academy of Anti-Aging Medicine (A4M), American Association of Naturopathic Physicians (AANP), member and past vice president of the Colorado Association of Naturopathic Physicians (COANP), and member of the National Lipid association (NLA). He is currently a candidate for Board certification in Clinical Lipidology.

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