

The Cholesterol Farce

Guy Schenker D.C. and Ronald Grisanti D.C., D.A.B.C.O., M.S.

Are you interested in knowing the truth behind cholesterol?

CHOLESTEROL IS NOT A PRIMARY RISK FACTOR FOR CARDIOVASCULAR DISEASE.

- ✓ Elevated serum cholesterol is **not** a cause of heart attacks and strokes.
- ✓ Eating foods high in cholesterol is not a cause of elevated serum cholesterol.
- ✓ Eating high cholesterol foods is not a cause of heart attacks and strokes, and in fact ...

It is the foods high in cholesterol and saturated fat (such as eggs, meat, fish, and poultry) that will actually keep serum cholesterol down to normal levels.

What!?" you ask. “Half the people in the world have been marching with the cholesterol crusade for decades.

Virtually all us have been victimized by the anti-cholesterol propaganda campaign. The idea that ...

CHOLESTEROL IS AN ESSENTIAL SUBSTANCE ... and not at all the deadly demon of popular mythology, will come as a shock to you, but it is my obligation to help you know the truth.

Do understand, however, that I am not saying high serum cholesterol is good, or even that it is clinically unimportant.

Quite the contrary, high serum cholesterol definitely indicates the presence of a metabolic imbalance. It is just that the high cholesterol has no specific relation to the risk of cardiovascular disease (CVD).

If the presence of cholesterol in the serum has absolutely nothing to do with the risk for heart attacks and strokes, just what is the pathological process involved in cardiovascular disease?

Cholesterol and Greed

Unfortunately for many, money makes the world go around. Truth, safety and efficacy certainly take second fiddle to the almighty dollar.

My goal is to present the black and white facts on the topic of cholesterol.

If truth is high on your list, then plan to be well informed.

The Estrogen Cow

Understanding the essence of the medical-pharmaceutical establishment, I was taken by surprise at how swiftly and how easily the establishment turned on one of its own sacred cows --- estrogen.

You know the story of estrogen: for years it was touted as a protector of women against cancer, against aging, against cardiovascular disease, and against osteoporosis.

The drug companies have been fighting tooth and nail for decades to refute and suppress all the research that proves that estrogen actually causes the very conditions it is supposed to prevent.

Now, so very suddenly, the establishment freely admits the harmful effects of estrogen.

Just last July, no less than the Journal of the American Association announced the discontinuation of a long term research study on estrogen when it became undeniable that the women in this study developed an increased risk for heart disease, stroke and cancer.

It's not surprising that they discontinued the study when the results were opposite the researcher's intended findings, but what is noteworthy is that instead of hushing it up, they actually published it for all the world to see.

Now, as an extension of that admission of estrogen danger, the Food and Drug Administration is actually requiring labels on all hormone replacement therapy products warning of the risk for heart disease, stroke and cancer.

What is going on here?

I had always assumed that the pharmaceutical industry would fight to the death to protect its estrogen-related profits.

What I think is happening is that the drug companies have decided to burn this candle from both ends.

The estrogen bandwagon has so much momentum, (with so many doctors conditioned to prescribe estrogen to every woman who experiences her first hot flash or who has any concerns about osteoporosis) that nothing will push this gravy train off course for years and years to come.

Another good example to illustrate how people fall for propaganda, and how drug companies change their tune for profit, is the cholesterol farce.

The History of Cholesterol Demon

Back in the 1960's when only a few mavericks in the medical profession and some people in the fledgling natural health foods movement were claiming that cholesterol was a problem.

The average medical doctor totally ignored cholesterolemia unless it exceeded 300.

Before long, the anti-cholesterol uproar became impossible to ignore, and so the establishment condescended to acknowledge the problem of high cholesterol.

Now, anything above 250 was considered a problem, and it was generally recommended that people should avoid eating too many eggs or too much meat because of the risk of heart disease from cholesterol intake.

Interestingly, it wasn't the medical profession that was spearheading this anti-cholesterol movement; it was the processed food industry, lead in particular by the seed oil industry.

Archer Daniels Midland wanted to sell an ocean of soybean oil, and thus lead the charge against cholesterol in particular and saturated fat in general.

Coconut and palm oils were banned from importation, and everyone "knew" that margarine was going to save our nation from what was sure to have been an epidemic of cardiovascular disease from eating dreaded saturated fat.

The billions of dollars worth of propaganda from the processed food industry was enough to sway the minds and change the lifestyles of millions of Americans, but the medical-pharmaceutical establishment continued to largely ignore the **perceived** cholesterol threat.

Then what happened?

The Statin drugs were invented, (predictably) accompanied by a paradigm shift in the establishment. Now, cholesterol was the demon of the century, and our doctors and pharmacists were going to exorcise the evil that lurked within us all from our ill-advised intake of meat and eggs.

The all-out war against cholesterol has been waged for over 25 years. The intensity of that war has not waned in the least despite the fact that for at least 5 years now it has been known that cholesterol is not (never has been, and never will be) a primary risk factor for cardiovascular disease.

That brings me to a critical point of information.

The Dangers of Statins

There are two critical reasons why these drugs are unacceptably dangerous.

The first danger is **liver damage**. Statin drugs work by blocking the enzyme HMG CoA reductase so that the liver can no longer synthesize its own cholesterol.

Sounds quite simple and perfectly harmless until you realize that the drug does not act locally on one single enzyme in one particular metabolic pathway.

Rather, the drug puts a tremendous load on overall liver function.

That is why it is generally recommended that once beginning Statin drugs, the patient should have his liver enzymes checked every six months.

This idea of the liver producing a "deadly demon" like cholesterol may come as a shock to you. The truth is, your liver produces 2000 milligrams of cholesterol every day.

Is your liver trying to destroy you with cardiovascular disease?

Of course not, cholesterol (contrary to the case fabricated against it, first by Archer Daniels Midland, then by the pharmaceutical industry) is an absolutely essential substance, with many critical functions in the body.

So --- the Statin drugs interfere with normal liver metabolism, inhibit the liver's production of many substances essential for health, and damage the liver in the process.

Liver damage is quite a high price to pay for the illusion of exorcising a mythological demon.

And though the cholesterolemia to cardiovascular disease connection is a myth, high serum cholesterol does indicate a metabolic problem --- yet the cause of that problem is never addressed by the Statin drug.

The **second danger** from taking Statin drugs is **musculoskeletal pain** that can be severe, and is very frequently misdiagnosed.

Since most doctors are not aware that myalgia is a common side effect of the Statins, people that suffer this side effect are often given diagnoses of tendinitis, tendinosis, tenosynovitis, tendinopathy, bursitis, rotator cuff syndrome, and so forth.

There are many cases reported in the literature of patients undergoing surgery for musculoskeletal pathologies that did not really exist.

The myopathy caused by Statin drugs involves **elevated serum creatinine-phosphokinase (CPK), indicative of muscle breakdown**.

In severe cases, muscular necrosis will occur, which can overload the kidney with CPK, and with myoglobin (with its associated toxic iron) and other products of necrosis, leading to kidney failure and even death.

A number of these patients have experienced kidney failure and even death; others have had such severe muscular pain and weakness that they are eventually unable to stand or breath on their own.

In my chiropractic practice I have seen many patients whose musculoskeletal pain was completely unresponsive to chiropractic correction, yet cleared when the patient was taken off Statin drugs.

Unfortunately, for those that have been on these drugs for a long time the myalgia can persist for two months following discontinuation of the drug.

Are You Still Convinced that Cholesterol is Bad?

If you are convinced that high serum cholesterol is bad and low serum cholesterol is somehow healthy, I want to enlighten you with the fact that ...

PEOPLE WITH LOW SERUM CHOLESTEROL (LESS THAN 180) HAVE THREE TIMES THE INCIDENCE OF STROKES AS THE GENERAL POPULATION.

Even William Castelli, M.D., a former director of the Framingham Heart Study (the one that originally supposedly implicated cholesterol as a problem in cardiovascular disease (CVD)) notes that ...

PEOPLE WITH LOW CHOLESTEROL (LOWER THAN 200) SUFFER NEARLY 40% OF ALL HEART ATTACKS.

Think of those two facts --- low serum cholesterol means that you have three times the chance of having a stroke, and, high cholesterol has been shown not to be significantly correlated with heart attacks since 40% of the people who have heart attacks have cholesterol that is lower than average.

“ People with low cholesterol (lower than 200) suffer nearly 40% of all heart attacks ”

--William Castelli, M.D., a former director of the Framingham Heart Study

The evidence against any relation of cholesterol to CVD has been pouring out from everywhere over the last 7 or 8 years. A study done by Gilman, et al and published in the December 24, 1997 Journal of the American Medical Association found that ...

THE MORE SATURATED FAT YOU EAT, THE LESS LIKELY YOU ARE TO SUFFER A STROKE.

This study found that polyunsaturated fats (the ones that the propagandists will have us believe are good for us) have no protective effect.

Best of all, this study actually was able to quantify the protective effect of saturated fats:

YOUR RISK OF STROKE DECREASES BY 15% FOR EVERY 3% INCREASE IN YOUR SATURATED FAT INTAKE.

Here is another interesting study done by Leddy, et al and published in 1997 in *Medicine and Science in Sports and Exercise*, Volume 29.

The subjects of this study were elite male and female endurance athletes, who were placed alternately on a high fat diet and then a low fat diet.

On a high saturated fat diet the patients maintained low body fat, normal weight, normal blood pressure, normal resting heart rate, normal triglycerides and normal serum cholesterol levels.

All their fitness and training parameters were maintained at the elite level. When put on the low fat (high complex carbohydrate) diet, however, it was found that the low fat diet negated many of the beneficial effects that exercise is expected to produce.

The athletes experienced a measurable decline in athletic performance. Most interesting, however, was the fact that the subjects on the low fat diet actually suffered a significant drop in HDL cholesterol (the “good” cholesterol), along with higher triglycerides (both of which are significant CVD risk factors. ---

In fact, the **ratio of triglycerides to HDL cholesterol** is probably the number one risk factor for CVD.

In other words, you want high cholesterol of the HDL type, and low triglycerides.)

I realize this information may hard to accept.

Remember, you have been exposed to millions of dollars worth of anti-fat, anti-cholesterol propaganda over a period of decades. So --- you see how difficult sharing the truth.

Here is another study: Research published in no less than the Journal of the American Medical Association, 1999; 281(15):1387-94) showed that there was absolutely no connection between eating eggs and the risk of heart disease or stroke in either men or women.

“ Research shows that there is absolutely no connection between eating eggs and the risk of heart disease or stroke in either men or women ”

--American Medical Association, 1999; 281(15):1387-94

The Lies of the Seed Oil Industry

Margarine, mayonnaise, cooking oil, salad dressings, and anything made with **corn oil, soy oil, safflower oil, canola oil, peanut oil, or any of the rest of the vegetable oils** (except olive, coconut oil, or palm oil) will accelerate the aging process in general, create catabolic damage throughout the body, and will specifically cause the oxidative damage in the blood vessel walls and in the heart that precipitates a cardiovascular crisis.

A study in The Journal of Lipid Research, 2000;41(5):834-39), showed that eating vegetable oils in the form of either soy bean oil or margarine raised LDL (bad cholesterol) and lowered HDL (good cholesterol).

Meanwhile, **eating butter (one of those “forbidden foods” saturated with cholesterol) actually lowered LDL cholesterol and raised HDL cholesterol.**

You’ve been victimized by the same propaganda campaign that has mislead thousands of other people.

You have been convinced that cholesterol is a vicious killer that must be conquered at all costs.

It may surprise you to learn that cholesterol is not a terrible demon at all. In fact, cholesterol is an absolutely vital substance; you would become very weak and die without cholesterol, it is that important.

DID YOU KNOW THAT...

- ❖ Your brain is made of cholesterol; 5% of the dry weight of your brain is made of cholesterol.
- ❖ Your nerves are made of cholesterol.
- ❖ Your body uses cholesterol to make all your important sex hormones and adrenal hormones.
- ❖ Without cholesterol to help your digestion, you couldn’t absorb any of your fat soluble vitamins like vitamin A and vitamin E?
- ❖ Every single cell in your body is surrounded by a membrane containing cholesterol, and that without that cholesterol membrane no cell in your body could function?
- ❖ Cholesterol is so important that your liver produces 2000 milligrams of cholesterol every day.
- ❖ When following a low cholesterol diet, your liver makes up the difference by producing more cholesterol just to be sure you have enough.
- ❖ High cholesterol in the blood doesn’t come from eating foods high in cholesterol; it comes from a metabolism that is not efficient at handling the cholesterol you

need.

What is one of the primary causes of heart attacks and strokes?

It **is triglycerides (the other blood fat), that is the primary risk factor** increasing your chance of having a heart attack or stroke.

Many people are surprised to learn that even though triglycerides are a fat, the unhealthy diet that raises triglycerides has nothing to do with fat intake; triglycerides (and cholesterol as well) are elevated by eating sugar.

The other dietary factor that in some cases will raise cholesterol is polyunsaturated oils (the ones that the propaganda says will help prevent cardiovascular disease).

Neither triglycerides nor cholesterol are elevated by eating saturated fat in general or high cholesterol foods in particular.

Remember, while cholesterol is not a primary risk factor for CVD, triglycerides are, and are probably the most significant.

A study published in *Circulation* (October 21, 1997, shows the result of Harvard research indicating that ...

THE 25% OF THE POPULATION WITH THE HIGHEST TRIGLYCERIDE TO HDL RATIO HAS 16 TIMES MORE HEART RELATED EVENTS THAN THE 25% WHOSE RATIOS WERE THE LOWEST.

And, as I have seen from countless other studies, high triglycerides come from excess starch and sugars in the diet.

“ The 25% of the population with the highest triglyceride to HDL ratio has 16 times more heart related events than the 25% whose ratios were the lowest ”

--Circulation (October 21, 1997)

What Causes Heart Attacks and Strokes?

Peter was worried about his cholesterol and was on a mission to do everything possible to lower it. Unfortunately, Peter died at the age of 51 from a massive heart attack. Prior to his death his doctor congratulated him for lowering his cholesterol from 225 to 186.

What went wrong?

Peter followed his doctor's recommendations to the "T". He avoided saturated fats, exercised three days week and faithfully took the prescription Zocor.

So why did this happen?

First and foremost, I want you to hear me loud and clear...

Cholesterol is **NOT** the villain that we have been led to believe.

Peter was simply following the crowd who believe that lowering cholesterol will save them from having a heart attack or stroke.

Considering heart disease will claim the life of one out of two people, it is about time you learn the "real" causes of heart attacks and strokes.

So what are the real causes of heart attacks and strokes?

They are:

- ❑ High triglycerides
- ❑ Low HDL cholesterol
- ❑ **Dietary deficiency of saturated fats and cholesterol.**

Yes, you read it right. Low intake of saturated fat is a factor in increasing your risk of heart disease.

The following facts on saturated fats are from Mary G. Enig, PhD president of the **Price-Pottenger Nutrition Foundation**.

- Saturated fatty acids raise HDL, the so-called good cholesterol, whereas the trans fatty acids lower HDL cholesterol.
- Saturated fatty acids lower the blood levels of the atherogenic lipoprotein (a), whereas trans fatty acids raise the blood levels of Lp(a)
- Saturated fatty acids conserve the good omega-3 fatty acids whereas trans fatty acids cause the tissues to lose the good omega-3 fatty acids.
- Saturated fatty acids do not inhibit insulin binding whereas trans fatty acids do inhibit insulin binding.
- Saturated fatty acids are the normal fatty acids made by the body and they do not interfere with enzyme functions such as the delta-6-desaturase, whereas trans fatty acids are not made by the body and they interfere with many enzyme functions such as delta-6-desaturase.
- Some saturated fatty acids are used by the body to fight viruses, bacteria and protozoa and they support the immune system whereas trans fatty acids interfere

with the function of the immune system.

- Stearic acid, a naturally saturated fatty acid, is the preferred food for the heart whereas trans fatty acids replace these saturated fatty acids in the cell membrane, thus depriving the heart of its optimum energy source.
- Saturated fatty acids are needed for proper modeling of calcium in the bones whereas trans fatty acids cause softening of the bones.
- Saturated fatty acids from animal sources are carriers for vital fat-soluble vitamins whereas factory-produced trans fatty acids are devoid of these important nutrients.

- ❑ **Excess dietary polyunsaturated fats.** Polyunsaturated fat is found in vegetable oils like soyabean, corn, sunflower and safflower. Excess polyunsaturates have been shown to contribute to heart disease, cancer, weight gain and many other health problems.
- ❑ **Excess Dietary carbohydrates** (particularly fructose sugar)
- ❑ **Thyroid insufficiency**
- ❑ **Excess estrogen**
- ❑ **Testosterone insufficiency**
- ❑ **Excess Catecholamines** (epinephrine, norepinephrine and dopamine)

Studies have found that the increased secretion of stress hormones when someone is angry (epinephrine, norepinephrine and dopamine) can damage the endothelium, a layer of thin, flattened cells that line the arteries and can accelerate the development of atherosclerosis.

The damage of artery walls and plaque build-up in atherosclerosis is what is ultimately responsible for most heart attacks.

Excess amounts of epinephrine, norepinephrine and dopamine, collectively known as catecholamines, also can disrupt the electrical rhythm of the heart.

Catecholamines are also associated with platelet adhesion. Platelets assist in normal, healthy blood clotting, but they also can adhere to sites of endothelium damage, which can lead to blockages in veins and arteries.

This sort of plaque buildup can lead to a complete blockage.

- ❑ **Excess Cortisol**
- ❑ **Excess insulin (Syndrome X)** Increased insulin levels have been found to be responsible for atherosclerotic lesions. Controlling insulin levels should be an important objective towards averting heart attack. Excess insulin has also been responsible for vasoconstriction and blood clotting, two more factors that contribute to arterial blockages.
- ❑ **Oxidative stress to the heart and arteries**
Apples turn brown. Butter turns rancid. Iron rusts. All are everyday signs of oxidative stress -destruction caused by free radical molecules. But none of these nuisances compare to what these unstable molecules can do inside the body, especially to cells of the brain and the vessels of the heart.

A single free radical can set off a chain reaction that can destroy an enzyme, a strand of DNA, or even an entire cell. Ongoing free radical damage leads to destruction of organ tissues and artery walls, and may be a contributing factor in the production of cancer cells.

- ❑ **Excess and rapid growth of cells lining the arteries causing narrowing**
- ❑ **Platelet aggregation**
When there is a vascular injury, platelets rush to the site of the injury and form a plug (blood clot) commonly called a platelet plug. However, when there is an abnormal increase in platelet formation unwanted blood clots could develop causing them to lodge in an artery going to the brain leading to a stroke. If one finds itself in a coronary artery it can stop blood flow to the heart muscle and cause a heart attack.
- ❑ **Excess prostaglandins**
Prostaglandins, it seems, can cause platelets in the blood to stick together, which can eventually lead to blocked blood vessels and prevent delivery of oxygen-rich blood to the tissues.
- ❑ **Excess vasoconstriction**
Vasoconstriction increases the risk of blockage simply by reducing the diameter of the vessel. Hypertension, or high blood pressure, is a good indicator of vasoconstriction.
- ❑ **Magnesium Deficiency**
- ❑ **Excess calcium** (pushing out magnesium) in the heart, blood vessels and vasomotor nerves
- ❑ **Trace mineral deficiencies**

Quite an exhaustive list, isn't it? (Note that elevated serum cholesterol is not on the list, and neither is excess dietary intake of cholesterol --- which is the point I have been making.

Case History:

Diane consulted with me in the beginning of 2004 for nutritional management of cardiovascular disease. Although her cholesterol levels were well within normal ranges, she was suffering with high blood pressure and elevated triglycerides. She also had a family history of strokes and heart attacks. At the age of 54, Diane wanted to be certain she was doing everything she can to prevent being a victim of a coronary episode.

Diane was following the traditional diet of low saturated fats, and was taking medication to lower her blood pressure (calcium channel block).

After a thorough cardiovascular evaluation, it was found that Diane had 11 of the probable causes of hearts and strokes increasing her risk of having a stroke or heart attack.

Functional Diagnostic Testing provided valuable objective information helping me to formulate a personalized program. After 6 weeks, Diane's risk factors went from 11 to 4.

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Clinical Indicators of Cardiovascular Disease

Here is a list of clinical indicators of CVD risk. In other words, this is a list of factors indicating the likelihood that one or more of the above listed causes of CVD are at work in your body setting you up for a heart attack or stroke.

- **Cardiac arrhythmia**
- **Elevated triglycerides** (particularly elevated triglycerides to HDL cholesterol ratio) Elevated blood levels of triglycerides, but not cholesterol, have been associated with an impaired fibrinolytic system. Studies have implicated triglycerides in the progression of both coronary atherosclerosis.
- **Elevated homocysteine:** Homocysteine acts as a molecular abrasive by scraping the inner layer of blood vessels. Thus high levels of homocysteine have been correlated with damaged endothelium and the formation of atherosclerotic lesions. One study found that men with extremely high homocysteine levels were three times more likely to have an associated myocardial infarction.
- **Elevated insulin:** Hyperinsulinemia with normal blood glucose is a factor associated with the etiology of hyperlipidemias and is an independent risk factor for heart disease.
- **Elevated cortisol levels:** High levels of cortisol are associated with hypertension, and, interestingly, it has been found that simply having a family history of hypertension predisposes an individual to exaggerated cortisol excretion in response to stress.

Patients with heart diseases **exhibit higher cortisol levels** than do controls.

- **Elevated estrogen in respect to progesterone**
- **Low testosterone (in men)**

Higher levels of testosterone has been found to offer men greater than five-fold protection against atherosclerotic coronary artery disease.

Chronically low testosterone levels, may actually precede coronary artery disease and thrombosis in men.

Low testosterone is linked to higher levels of fibrinogen and plasminogen activator inhibitor which play a crucial role in blood viscosity, plaque formation, and platelet aggregation.

Experimental studies also show testosterone capable of triggering vasodilation of the arteries—a relaxant effect believed to have a beneficial impact on angina and other cardiovascular impairments.

A normal physiological level of testosterone may protect against the development of hyperlipidaemia, hyperinsulinism, hypertension echoed British cardiologists in the Quarterly Journal of Medicine.

- **High testosterone (in women):** though testosterone may produces strong beneficial effects on an amazingly wide array of CVD risk factors in men, high levels of testosterone exert a detrimental influence on cardiovascular health in women.
- **Lipid Peroxide:** Lipid peroxides are the products of chemical damage done by oxygen free radicals to the lipid components of cell membranes. This test is an assay of total thiobarbituric acid-reactive substances (TBARS) in serum that measures total serum lipid peroxidation, an indicator of whole body free radical activity. High levels of lipid peroxides are associated with cancer, heart disease, stroke, and aging.
- **Elevated C-reactive protein:** Inflammation may be a crucial factor in the pathogenesis of atherothrombosis. C-reactive protein is a marker associated with production of inflammatory cytokines. These cytokines appear to encourage coagulation and damage to the vascular endothelium, increasing the potential threat to cardiovascular health.

“ A normal physiological level of testosterone may protect against the development of hyperlipidaemia, hyperinsulinism, ”

--*Quarterly Journal of Medicine.*

A recent study published in the New England Journal of Medicine found that plasma C-reactive protein (CRP), a marker for systemic inflammation, is a strong predictor of myocardial infarction and stroke.

Men with CRP values in the highest quartile had three times the incidence of myocardial infarction and two times the incidence of ischemic stroke. Significantly, these relationships remained steady over long periods, and were independent of other lipid and non-lipid factors, including smoking.

- **Mineral deficiencies**
- **Fatty acid imbalance**
- **Thyroid functional evaluation**

Do see the significance of the two lists you have just read?

The knowledge you have in the first list puts you far above the vast majority of people in your understanding of CVD causes.

As unbelievable as it may seem, we have a condition that kills more than 50% of all people, yet most doctors are almost entirely ignorant of the causes of this condition.

How unbelievably absurd is that? You can be quite pleased that you have risen above the standards of mediocrity that characterize the healing arts professions.

The real beauty is in the second list. Here, you have best clinical indicators that inform you completely about the 19 causative factors of CVD.

Do you see how valuable this is to you and your loved ones? You have the ability to define and monitor the 19 causes of cardiovascular disease with best clinical indicators.

Case History

Peter is a 58 years old and he already had one heart attack. His triglycerides were over 1000, blood pressure in the stratosphere, and his pulse would bounce up to over 100 at the slightest provocation. Peter was found to have 14 of the 20 causes of cardiovascular disease.

Functional Diagnostic Testing provided valuable objective information helping me to formulate a personalized program.

Within three months, Peter's triglycerides came down below 200, the blood pressure was in the high normal and his pulse was steady and strong. Furthermore, Peter was able to eliminate four of his six medications prescribed by the Cardiologist, and is feeling better than he has in years. Overall, Peter's risk factors went from 14 to 6.

Overview of Risk Factors and Clinical Testing

Cardiovascular Causes	Recommended Tests	Recommended Labs
High triglycerides	Blood Test	Standard Lab (Quest, Labcorp)
Low HDL cholesterol	Blood test	Standard Lab (Quest, Labcorp)
Excess dietary polyunsaturated fats	Fatty Acid Test	Great Smokies 800-522-4762
Excess Dietary carbohydrates	Dietary Restriction	
Thyroid insufficiency	TSH, Free T4, Free T3, Reverse T3	Standard Lab (Quest, Labcorp)
Excess estrogen	Estrogen Metabolism Assessment (Estronex Test)	Metamatrix 800.221.4640 Great Smokies 800-522-4762
Testosterone insufficiency	Testosterone Salivary Test	Great Smokies 800-522-4762 BioHealth 800-570-2000.
Excess Cortisol	Cortisol Salivary Test	Great Smokies 800-522-4762 BioHealth 800-570-2000. Diagnos-Techs (800) 878-3787
Excess insulin	Blood Test	Metamatrix 800.221.4640 Diagnos-Techs 800 878-3787
Oxidative stress to the heart and arteries	Lipid peroxide Blood Test	Metamatrix 800.221.4640 BioHealth 800-570-2000.
Platelet aggregation	Platelet blood test	Standard Lab (Quest, Labcorp)
Excess prostaglandins	Fatty Acid Test	Great Smokies 800-522-4762
Excess vasoconstriction	Check Blood Pressure	
Excess calcium Trace mineral deficiencies	RBC Mineral Test	Doctor's Data 800.323.2784 Metamatrix 800.221.4640

Dr. Grisanti's comments:

Would you like to know if you are at risk to get a heart attack or stroke? Identifying your risk factors allows you to identify early stages of CVD 20 years or more before the typical physician will identify a pathology, and as much as 25-30 years before the heart attack or stroke.

Remember, cholesterol "alone" is simply not acceptable. Don't buy into the Madison Avenue million dollar television ads telling you that lowering your cholesterol will save you from having a stroke or heart attack. Now that you know the truth, do something about it and demand that your physician properly evaluates your risk factors.

It could mean the difference between life and death!

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Chiropractic Mentors

4200 East North Street Suite 14
Greenville, South Carolina 29615
Phone: 864-292-0226
FAX: 864-268-7022
E-mail: drgrisanti@charter.net