

Cardiovascular Disease: The Whole Picture!

In 1989, my mother died, suddenly, of a massive heart attack. A year and a half later, my father died of congestive heart failure, after suffering and recovering from 2 strokes. Besides my brother, I am the only living member of both sides of the family that has not died of a heart related disease. There is no doubt that both my brother and I have a high genetic risk of cardiovascular disease (CVD). So, it is of great interest to me that I keep abreast of the latest prevention methods available.

Most people go to their doctor and have their cholesterol checked, and are told that if it is in normal range and they exercise, eat a low fat diet and not smoke they are safe. But is that enough? Neither my mother nor my father had elevated cholesterol. Research has found that there are other factors that lead to CVD beside elevated cholesterol or triglycerides. This idea has been gaining popularity since researchers have long known that at least 40% of the people who suffer a heart attack had normal total cholesterol levels

Though many physicians in private practice and some at academic medical centers have had their doubts about the importance of cholesterol, the American public has been educated to know their cholesterol scores. And testing is a widely accepted part of the routine physical examination of all adults. Some factors however, are often overlooked in blood work, such as: homocysteine levels, C-reactive protein, lipoprotein (a) also known as, (LP(a)), Apo A-1 /Apo B. and fibrinogen. Research is now showing evidence that these may have an equal to or greater role in determining an individuals risk for CVD.

Homocysteine ("ho-mo-sist-een") is an amino acid (a building block of protein) that is produced in the human body. Homocysteine may irritate blood vessels, leading to blockages in the arteries (called atherosclerosis).

High homocysteine levels in the blood can also cause cholesterol to change to something called oxidized low-density lipoprotein, which is more damaging to the arteries. In addition, high homocysteine levels can make blood clot more easily than it should, increasing the risk of blood vessel blockages. A blockage might cause you to have a stroke or a problem with blood flow. Up to 20% of people with heart disease have high homocysteine levels.

A revolutionary eight year-long study of 27,939 women, which appears in the November 14th, 2002, issue of the *New England Journal of Medicine*, was specifically designed to address how C reactive Protein (CRP) measurement might help better identify those at high risk for heart disease. Researchers at the Brigham and Women's Hospital (BWH) have shown that this simple and inexpensive blood test for CRP, a substance produced in the liver when arteries become inflamed, is a more powerful predictor of a person's risk of suffering a heart attack or stroke than screening based on LDL cholesterol.

Paul Ridker, MD, Director of the Center for Cardiovascular Disease Prevention at the BWH and lead author of the study, estimates that approximately 25 percent of the United States population has elevated CRP levels, but normal to low levels of cholesterol. This means that millions of Americans may be unaware that they are at increased risk for future heart problems, even if they are routinely screened for elevated cholesterol.

Lipoprotein A or LP(a), is an atherogenic lipoprotein that resembles low-density lipoprotein (LDL) "bad" cholesterol. Low-density lipoprotein (LDL) is referred to as "bad" because of its tendency to deposit cholesterol in artery walls, narrowing the vessels. Atherogenic means the formation of a fatty thickening of the walls of our arteries, as found in atherosclerosis, or hardening of the arteries. Approximately 20 percent of the population has elevated levels of lipoprotein A which is believed to be the threshold to increase the risk of CVD twofold.

Findings from Oxford University published in the September, 2000, edition of *Circulation* found that cardiac patients with high levels lipoprotein-a in their blood are 70 percent more likely to have a heart attack than those with lower concentrations.

In August, 1996, Research studies from The American Heart Association National Center, , showed that Apolipoprotein "B", (apo B), a protein associated with LDLs, appears to be a reliable predictor of increased risk of Ischemic Heart Disease, which is damage to the heart muscle caused by artery blockages. Some studies suggest that apo B may be even a more accurate forecaster of increased risk from atherosclerosis, than LDL itself.

The "A" apolipoproteins (Apo A) form the major proteins found in high density lipoproteins (HDL) the "good cholesterol". Many studies using different approaches have suggested that elevated HDL levels may reduce the risk of coronary artery disease, (CAD) whereas reduced levels are associated with increased risk for coronary artery disease. Deficient levels of Apo A-1 has been reported to be one of the most reliable predictors of CAD. In fact, the studies show that men with the highest levels of apo B and the lowest levels of apo A-1 were nearly four times as likely to have a fatal heart attack than those with opposite values.

Another test that can be easily performed is your fibrinogen level. In order for blood to clot, fibrinogen is converted to fibrin by the action of an enzyme called thrombin. Fibrin molecules clump together to form long filaments, which trap blood cells to form a solid clot.

Fibrinogen rises sharply during tissue inflammation or injury. When this occurs, high fibrinogen levels may be a predictor for an increased risk of heart or circulatory disease. Other conditions in which fibrinogen is elevated are cancers of the stomach, breast, or kidney, and inflammatory disorders like rheumatoid arthritis. Several months ago I had a Cardiovascular Risk Assessment test to check all of these factors, although my Cholesterol and triglycerides were normal my fibrinogen was quite out of range. My father had two strokes, two of my uncles died of stroke and my mother had a blood clot in her leg when she was my age.

The good news is, I am discovering this factor now, before it is too late. The other good news is that there are natural, nutritional ways to lower my fibrinogen levels as well as natural ways to lower homocysteine and the other factors mentioned. If you want to learn more about the Cardiovascular Risk Assessment or how to prevent or lower your risk factors for CVD. Call The Advanced Health Institute.

For more information see our website at www.advancedhealthinstitute.com or call (512) 416-1810.