

AT THE age of 45, the lifetime risk of heart disease is 60.3 percent for men and 55.6 percent for women. In other words, three out of five men without heart disease at age 45 will develop the condition at some point in their lives. Being a woman, and 45 years old, the probability of my future tango with heart disease is, at best, 50-50. On what should I base my chances?

I believe the Bible when it says, “time and chance happen to them all” (Ecclesiastes 9:11). There are no guarantees that bad things won’t happen to us. I also believe these words. “Man can make his circumstances, but circumstances should never make the man. Man should seize circumstances as his instruments with which to work. He should master circumstances, but should never allow circumstances to master him.”¹ These two balancing concepts have led me to the position that rather than be victims in this life, pushed around and molded by situations and occurrences, we should

grab hold of seen and unforeseen events, press on, and work through, and in spite of them to reach our ultimate goals.

When it comes to our health, what are the implications of this basic philosophy? What could be possible if we took a proactive approach with the health risks that you and I face? What if we didn’t just let life happen to us, but thought through future potentials and lived in such a way as to do our part to possibly prevent, postpone, or gain the tools to deal with a health crisis instead of thinking, *oh, it’s never going to happen to me, or we all have to die somehow?*

Coronary Heart Disease (CHD) involves the narrowing of blood vessels that oxygenate the heart muscles. Atherosclerosis is a diseased condition of the arteries, blood vessels that carry oxygenated blood throughout the body. Arterial thickening results from the development of plaque. While healthy arteries are flexible and elastic, atherosclerosis hardens, thickens, and narrows arteries and increases the risk for heart attack, stroke, and congestive heart failure.

Lining the inside of a healthy artery is a thin layer of cells, covering the interior surfaces of the entire circulatory system including the heart, blood vessels, the lymphatic system, and even the smallest capillaries. It is called the endothelium. A healthy endothelium maintains uninterrupted circulation by allowing blood to flow smoothly to every part of the body and aids in blood pressure control. However, when the integrity of the inner lining of the artery is compromised, it is no longer able to protect the artery walls against invasion. It is when damage to the endothelium occurs that low-density lipoprotein (LDL) cholesterol infiltrates the blood vessel wall where it becomes oxidized, and continues in a process that results in the formation of plaque. As an artery becomes increasingly narrowed, less blood can flow through, and less oxygen and nutrients can reach organs like the heart. A corresponding loss of flexibility and elasticity occurs. Again, it is this damage to the lining that initiates the progression of atherosclerosis.

The question is, what causes damage to the endothelium? Some common accepted associations include elevated levels of cholesterol and triglycerides in the blood, high blood pressure, inflammation, diabetes, aging, and cigarette smoking. Not only does damage to the endothelial cells incur the development of atherosclerosis, but it also results in reduction of nitric oxide being released by the epithelial cells. So what? Well, it turns out that nitric oxide functions as a vasodilator. It “signals the surrounding smooth muscles of



the arteries to relax and dilate, which increases healthy blood flow throughout the body. But harmful oxidative stress, such as that which occurs in hypertension, hypercholesterolemia, diabetes, cigarette smoking, and the aging process itself inactivates nitric oxide, thereby contributing to endothelial dysfunction.”² In other words, damage to this precious inner lining of the blood vessels occurs as a result of various factors, some we can do something about, others we can't, like aging.

PLANT BASED DIETS HAVE BEEN FOUND TO BE VERY EFFECTIVE IN LOWERING LDL CHOLESTEROL LEVELS.

If you were to get your blood drawn to assess your risk of heart disease, the blood work would include a lipid profile. This measures total cholesterol, triglycerides, high-density lipoproteins (HDL), and low-density lipoproteins (LDL) cholesterol. Consistent associations have been found with these blood values and heart disease. For example, the risk of cardiovascular events increases substantially with elevated LDL levels. It is well accepted that high LDL plays a major role in the initiation and progression of atherosclerosis. LDL carries cholesterol to the arterial wall whereas HDL cholesterol carries cholesterol away to the liver. Remember, it is LDL cholesterol that invades the wall lining of arteries and becomes a problem. However, it only does this after the lining has been damaged.

Plant-based diets have been found to be very effective in lowering LDL cholesterol levels. One of the potential reasons for this is due to its high fiber

content. Fiber is found in plant-based food. Though it is not “digested” in the understood use of the term, nor is it absorbed, it has been found to:

- Lower LDL cholesterol levels
- Lower blood sugar levels in people with diabetes
- Lower blood pressure in people with high blood pressure
- Lower risk of heart disease
- Lower risk of diabetes
- Lower rates of obesity and is associated with healthier weight

Fiber is classified under two main

headings: soluble and insoluble. Insoluble fiber speeds up the movement of food through the intestines and promotes regularity. It is excreted largely intact.

Most often it is insoluble fiber that is thought of in

reference to increasing fiber in the diet. Most foods contain a mixture of the two categories in varying amounts. Insoluble fiber rich foods include whole grains, wheat bran, many vegetables, and fruit with skin. It provides bulk and promotes regularity. When mixed with water, soluble fiber dissolves and becomes a gel-like substance that helps control blood sugar, promotes a feeling of fullness, and has been found to reduce LDL and total cholesterol levels. Sources of soluble fiber include oats, peas, beans, barley, apples, and citrus fruits.

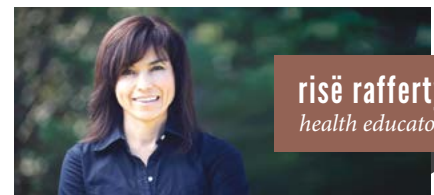
It is in the intestines that soluble fiber accomplishes its benefits to the blood. Let me explain. The liver uses cholesterol as an ingredient to make a digestive substance called bile. Bile is stored in the gallbladder where it is released into the small intestine for the purpose of digesting fat. After it has done its job in the intestines, the majority of bile is absorbed and transported back to the liver, where the liver recycles it to

continue making fresh supplies of bile. When mixed with liquid, soluble fiber forms a gel that binds with cholesterol and bile in the intestines. As a result, bile ends up being excreted with the soluble fiber rather than being recycled. In its absence, the liver realizes that it must make more bile and pulls cholesterol from the blood for this purpose. In this way blood cholesterol levels are gradually reduced.

No, we cannot guarantee health. However, something as simple as oats for breakfast and beans for lunch could play a part in altering your trajectory. Though the state of our blood may promote disease, Scripture describes One whose blood is without blemish or spot. To all who believe it is precious. In it is our hope, our redemption, our cleansing, our title and fitness for heaven. Guaranteed is the promise that, we are “brought near by the blood of Christ” (Ephesians 2:13). All this is found in His blood.

¹ Ellen G. White, *Gospel Workers*, p. 96.

² Joanne Nicholas, “Natural Methods for Reversing Atherosclerosis,” *Life Extension Magazine*, October, 2008, http://www.lef.org/magazine/mag2008/oct2008_Natural-Methods-for-Reversing-Atherosclerosis_01.htm.



Risë has been writing on various health subjects for over 20 years. She has inspired many through her research and down-to-earth writing and speaking style. She believes that healthy living is intimately tied to happiness and wholeness.