

## **Coronary Artery Disease Reversal**

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### **Abstract**

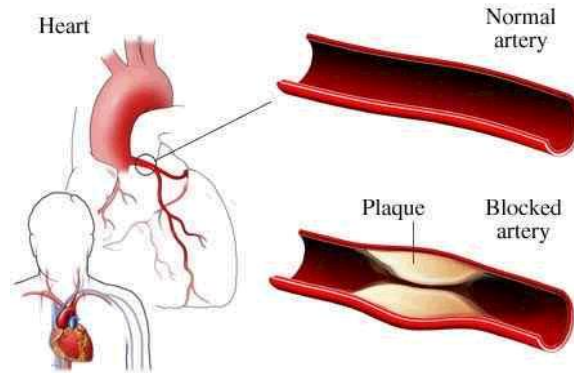
The purpose of this article is to discuss that an estimated nine million Americans have some type of heart disease and approximately 600,000 people die each year from heart related issues. Arteries may become blocked or the muscles can die from a lack of oxygen enriched blood, causing a heart attack. Most people do not have any symptoms before suffering a life-threatening heart attack. This can be explained from poor diets, physical inactivity, obesity, and other ailments. There are ways to correct the disease like managing cholesterol, surgical stent placements, and bypass surgery, but these are only short-term options. Above all, the only proven way to reverse heart disease is from a plant-based diet. In most cases, the disease is so extreme that no treatment can alleviate the progression. Eliminating dairy and meat from your diet can initiate the body's healing process. The nutrients from vegetables and fruits will repair the cells, lower cholesterol, and eradicate the plaque. A disciplined plant-based diet has been scientifically proven to reverse coronary and even heal coronary artery disease (CAD) without the extreme procedure of bypass surgery.

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A disciplined plant-based diet has proven to reverse coronary artery disease (CAD) without the extreme measure of bypass surgery. According to Benjamin et al. (2017), "CAD remains the number one killer of women and men in western civilization despite 40 years of aggressive drug and surgical interventions" (p. 5). Over 600,000 people die each year from heart disease, equivalent to about one heart-related death every 40 seconds. An estimated nine million Americans have heart disease (Benjamin et al., 2017, p. 5). By 2030, death from CAD is forecasted to attain the lives of an estimated 23.4 million people (Casser et. al., 2009). Reversing heart disease is possible if Americans change their eating habits to a whole-food, plant-based diet and eliminate all processed foods, meat, and dairy.

Figure 1 shows the debilitating effects of coronary artery disease leading to atheromatous plaque buildup, known as fatty deposits, on the artery walls (Casser et al., 2009). The arteries become narrowed and hardened, preventing proper blood flow through the heart, limiting the blood flow to the rest of the body. The heart is essentially one large muscle. When that muscle dies or becomes damaged from the lack of oxygen-enriched blood, a heart attack begins. This plaque can cause permanent damage to the heart tissues, leading to arrhythmias and even death (Casser et al., 2009).

Figure 1

*Coronary Artery Disease***Common Symptoms**

One of the most dominant symptoms of this disease is angina. Angina comes in two forms, stable and unstable (Simon & Zieve, 2012). Stable angina is the least problematic since unstable angina most commonly indicates an oncoming heart attack. Stable angina frequently only lasts very few minutes and is usually prompted by physical exertion. Symptoms of both types of anginas can cause mild chest pain to severe pain and pressure in the area of the chest (Simon & Zieve, 2012).

Many factors contribute to the cause of heart disease, including unfortunate genetics, lack of exercise, poor diet, unhealthy cholesterol levels, high blood pressure, diabetes, and socioeconomic status. Physical inactivity prevents oxygenated blood from moving through the body and the heart properly; obesity in the midsection then becomes a factor. Thirty to sixty minutes of exercise a day is recommended for best results. High cholesterol levels and high blood pressure also contribute to plaque buildup in the heart, but these can be controlled with medications and diet. People with diabetes must control their blood sugar levels since they are at a higher risk for the disease. They are also at a higher risk for peripheral artery disease (PAD), which is limited blood flow to the extremities (Casser et al., 2009). Diet is one of the main concerns in our day and age. Fast food has become the new norm instead of eating whole grains, legumes, vegetables, and fruits. Limiting fish, red meat, and dairy will improve health since these foods have such a high-fat content (Simon & Zieve, 2012).

The human body may or may not feel the effects of having heart disease or experiencing a heart attack. A heart attack is known to be a "silent killer," meaning little to no symptoms. Some people do not even know they are having a heart attack until it is too late. Then, many people have symptoms weeks before the attack that are mistaken for something as simple as indigestion. People may feel chest pain, unexplained tiredness, and just overall discomfort. The more extreme cases may be pain radiating down the arm or up into the neck area. Sometimes there is an aching, squeezing, burning sensation with very sharp pains in the chest. An irregular heartbeat may be present along with elevated blood pressure. Coughing, wheezing, and a high heart rate may also begin with these symptoms (Zafari, 2017). Medications do not necessarily stop a heart attack, but they can manage symptoms. Doctors will prescribe aspirin, beta-blockers, and statins, according to the European Heart Journal. (Heart, 2014)

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## Ways to Prevent Heart Disease

There are many ways to prevent heart disease. Exercising routinely to keep the blood flowing through the body is a great start. It is also controlling blood pressure, lowering stress levels, taking medications, regulating diabetes, and eating a low-salt, low-fat, high-fiber diet (Stewart et al, 2017). Many studies conducted by Dr. Esselstyn have also shown that switching to a purely plant-based diet may also benefit or reverse the effects (Esselstyn & Cardiol, 2017). The last resort should be surgery, but in some cases, it is necessary.

### Stress Tests

Most patients are first diagnosed with more minor invasive procedures. A stress test or an electrocardiography test (ECG) will determine if the disease exists in the arteries by “measuring the electrical activity of the heart” (Simon & Zieve, 2012. p. 10). These studies can determine if more extensive procedures are required. An exercise stress test is most common and usually the first one ordered by a doctor. By exhibiting exertion from exercise, the doctor can tell how well the heart functions as they can see the blood flowing in and out of the heart. The doctor will measure the blood flow and the expansion of the heart. When blood does not flow properly, the disease is usually present. Electrocardiography is used when a patient fails a stress test. This test measures a series of waves through all of the heart's chambers. The two most crucial wave patterns are S.T. elevations and Q waves. Both of these wave patterns prove that the disease does exist in the arteries and the location of the blockage (Simon & Zieve, 2012).

The more invasive test is called an Angiography. This test requires a tube insertion into the artery, starting in the leg's femoral artery, that leads up to the coronary arteries. The surgeon will inject dye and take many x-rays to see which areas are blocked or becoming blocked. A balloon may be used to stretch the arteries by pushing the plaque against the walls so blood may flow more willingly. In some cases, stent placement can be used to open narrowed arteries. The stent is made of a metal mesh that expands and opens the path. Stents keep patients from having more extensive surgeries temporarily, but the patients pose the risk of the stent to fail acutely depending on the type placed (Heart, 2014).

Bypass surgery is the most invasive. The breastbone must be cut apart to reach the arteries of the heart. The patient is attached to a heart-lung machine to keep the heart beating and the lungs functioning properly. Other arteries or veins are taken from different parts of the body and used as the new pathway for the blood to bypass the blocked artery. In most cases, the patient is in ICU for several days, then in a standard room for up to a week. It may take up to six weeks for the patient to go back to their normal activities (Parmet et al, 2008).

### Coronary Artery Disease

Coronary artery disease was pretty uncommon at the beginning of the twentieth century. People were hardly eating processed foods, added oils, and consuming sugary beverages such as soda. According to Popkin et al. (2012), “In 1977-78 two-thirds of added sugar in the U.S. came from food, but today two-thirds comes from beverages,” (Caloric Sweeteners section) and research saw “significant reductions in consumption of legumes, coarse grains, and vegetables”

(Dietary Changes section, para. 2). Processed food manufacturers were not as abundant then as they are today. People had farms and raised their own beef, pork, and chicken. They grew their own vegetables and sold the rest to earn a living. Today we drive to the store and purchase the quickest meal to put on the table or go through a drive-thru since time is of the essence. These meals are often processed, full of fat and calories with added salt and preservatives. No wonder we are all dying of heart disease!

### **Plant-Based Diet**

Esselstyn et al. studied a small group of individuals in 1985 utilizing a whole-food, plant-based diet. That study proved that eating a strict vegan diet showed better blood flow in the arteries in as little as three weeks. One patient, in particular, had severe blockages in the right calf, experienced full pain relief and much stronger pulsations after ten months (1995, as cited in Esselstyn et al., 2014). In 2014, another study performed on 198 people also proved that 99.4% of the participants saw a complete reversal in their coronary artery disease after eating a plant-based diet. In all of their studies and research, he proved that whole food, plant-based diet “restored the ability of endothelial cells to produce nitric oxide, which halted and reversed the disease without morbidity, mortality, or added expense” (Esselstyn et al., 2014, p. 357).

### **False Advertising**

Doctors and hospitals are making a vast amount of money repairing the damage from what we put into our mouths. They have spent many years in medical school learning how to patch us back together. In my opinion, false advertising is the cause. The Food and Drug Administration uses a pyramid to teach us about food groups and nutrition. It suggests eating low-fat meat, limiting sugars, and adding oils, but who actually consumes those in moderation? It only suggests eating six ounces of grains per day, two and a half cups of vegetables, and two cups of fruit (2005). They fail to tell you that meat and dairy are the culprits to clogging arteries due to their high-fat content.

### **Our Changing World**

The world changed when companies learned how to process foods faster for a quicker profit. The added preservatives make for longer shelf life but add unneeded salt, fat, and cholesterol to our bodies (Cardiol, 2016). Mass-bred animals in close quarters carry diseases, and those diseases are treated with antibiotics that are passed along in our meats. In 2005, a public health nutrition article indicated that “Animal products are the primary source of saturated fat responsible for higher risk of cardiovascular disease, diabetes mellitus, and some cancers” (Walker et al., 2005, p. 341). This research also indicated that a diet of only plant-based foods (vegan) lowered many chronic diseases, obesity, and the risk factors associated with those diseases. Meat and dairy contain the majority of the saturated fats and cholesterol that we are ingesting. The animals are being fed the grains that we should be consuming ourselves. By the time the nutrients land on our plate, most of those nutrients have diminished from the food (Walker et al., 2005).

## Vitamins and Nutrients

All the vitamins and nutrients consumed from plants actually fight off diseases. Plants protect the human body by repairing our cells, reducing inflammation, improving our immune system, and revamping our cholesterol levels. According to Perm, the fiber content derived from plant foods aid in the gastrointestinal, immune, and cardiovascular systems (2016). All plants contain the needed vitamins and minerals, which are the essential nutrients necessary to keep our bodies strong and active (Perm).

## Concluding Remarks

Most people are given the impression that protein only comes from meat and calcium is only found in dairy. In actuality, plants contain an ample supply of protein when legumes, nuts, intact whole grains, and soy are consumed. Calcium is abundant in leafy green vegetables, sweet potatoes, almonds, and broccoli, to name a few (Perm, 2016).

The only vitamin that cannot be found in any plant-based food is Cobalamin, otherwise known as B<sub>12</sub>. Vegans must take a B<sub>12</sub> supplement or become deficient and risk the onset of many irreversible neurologic disorders, anemia, and gastrointestinal issues (Perm, 2016).

In conclusion, while medicines, stents, and bypass surgeries can benefit some people, the disease will remain. By ingesting only proper nutrients from a plant-based diet, those nutrients can reverse the effects of CAD, which causes heart attacks and disease. From personal experience of having a spouse with CAD, those with genetically high cholesterol may still need to remain on statin medications, if necessary, and consume foods that specifically lower LDLs with the advice from their doctor. This will consist of resisting all meats and dairy and basing a diet full of vegetables, fruits, and whole grains for overall improved health.

Finally, limiting processed foods, sugar, starches, and taking in a purely plant-based diet has been proven to repair the cells in the body, lower cholesterol, and eliminate the plaque in the arteries, thus reversing coronary artery disease. It is unbelievable how debilitating consuming meat and dairy can be on the body, yet a whole food plant-based diet can completely reverse coronary artery disease. Our health and longevity depend on us to make the right food choices.

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