

Understanding Heart Attack - the basics

By Joel O. Ogbonna, RDCS; Co-Founder PreventFirst Community Outreach; Inc. (501-c3 non-profit health organization)

When I was in my early 20s, I was not quite sure what to be when I grew up. I was named after Prophet Joel by my father who helped to cultivate my love for God early in life. In 1990 my father had a stroke and later passed away from a heart attack. My father was a strong and Godly man but he was no match for stroke and heart attack.

In my quest to understand the disease that took his life, I found a new ministry – a preventive health advocate with a major in Heart Ultrasound. I became convinced that most people who died from heart disease or stroke could have been alive today if the problem was detected early.

What causes a heart attack? What exactly are the early warning signs of a heart attack?

What Is a Heart Attack?

For the heart to continue pumping, the heart requires its own constant supply of nutrients and oxygen. Nutrients and oxygenated blood is delivered to the heart muscles through two large, branching coronary arteries – the right coronary artery and left coronary artery. When one of these arteries or branches block up or shut down, the portion of the heart muscle that receives nutrients and oxygenated blood through the artery is starved, then damaged. This is a condition called cardiac ischemia. If cardiac ischemia lasts too long, the starved heart tissue dies. This is known as a heart attack, otherwise called myocardial infarction – literally, death of heart muscle.

The pain of a severe heart attack has been likened to a giant fist enclosing and squeezing the heart. Most heart attacks last for several hours. In some cases there are no symptoms at all, but most heart attacks produce some chest pain. People with diabetes often have silent ischemia. If the attack is mild, it may be mistaken for heartburn. Other signs of a heart attack include a shortness of breath, faintness, nausea or dizziness. The pain may be constant or intermittent. The majority of heart attack victims are warned of trouble well in advance by episodes of angina, which is chest pain that, like a heart attack, is provoked by ischemia. With angina, blood flow is quickly restored, pain recedes within minutes, and the heart is not permanently damaged. With a heart attack, blood flow is critically reduced or fully blocked, pain lasts, and heart muscle dies without prompt treatment.

Researchers in the early 1980s confirmed that the trigger for nearly all heart attacks is not the obstructive plaque itself, but the sudden formation of a blood clot on top of plaque that cuts off blood flow in an already narrowed vessel. They also confirmed that most heart attacks are the result of coronary artery disease, also known as atherosclerosis or "hardening of the arteries," a condition that clogs coronary arteries with fatty, calcified plaques over time. New research shows that inflammation also plays a role in the evolution of heart attacks. It appears that the coronary

artery walls become inflamed over time, further increasing the buildup of fatty plaques. Heart attacks may also be caused by coronary artery spasm, where a heart artery is temporarily constricted. Stress is also believed to raise the risk, and can act as triggers for a heart attack.

There is no step-by-step process that can lead to a heart attack but major risk factors for coronary artery disease are well known. Some can be controlled, including high blood pressure, high cholesterol, obesity, smoking, and a sedentary lifestyle. Other risk factors include being a man over 50, being a postmenopausal woman, having diabetes, and having a family history of heart disease. A heart attack can lead to: heart failure, where the heart doesn't pump well enough



to meet the body's needs; arrhythmias or abnormal heart rhythms; cardiac arrest or sudden cardiac death, where the heart stops beating; cardiogenic shock, where the heart is so damaged that a person goes into shock or death. So do not wait to seek help if you think an attack is beginning. Take the extra step to healthy you. Doctors are not allowed to order ultrasound tests unless you have symptoms, but

could be too late. Why do you have to wait until you get sick to see a doctor? After all you don't wait till your vehicle brakes down to check your gas or oil level. Check this out; when you buy a house, you keep the documents with you and not with the banker. When you buy life insurance, IRA, or 401K you keep the documents with you. Why do we trust some one else with our vital medical records? You are not the only patient your doctor has. Why not help your doctor keep track of the simple values such as your cholesterol, sugar level, body mass index and blood pressure. When you understand them and control them, you will reduce your doctor's visit. U.S. Healthy People 2020 members are empowered to communicate more effectively with their primary care physicians. Members keep a copy of their vital health records with them at all times including scanned in copies of vital health records such as Ultrasound test interpretations, EKGs, blood lab tests, and more on a USB flash drive or on CD. If you are not a member yet, I encourage you to join. Members, please schedule your annual comprehensive health assessment today. Donations from people like you help make U.S. Healthy People 2020 Network possible. **“It is not good to eat much honey; So to seek one's own glory is not glory”**