## Cardiac arrest

Science, Anatomy



Sudden cardiac death happens more these days. There are so many people alone in the United States who just stops breathing with no heart disease involved. So why did their heart stop? There are so many researchers out there trying to figure out the underlying cause of these people who this happen to. There can be other reason why a person's heart can stop without having a cardiac disease. A person's body may store minerals that control the arrhythmia of the heart to act a different way.

An example would be like too much potassium stored in ones body can actually stop the heart. This usually will happen more frequent in patients who receive dialysis on a regular basis; they depend on that to excrete fluids from the kidneys. There could be otherhealthissues that could cause your heart to beat differently or to cause other underlying issues to put your heart in morestress. Some of these health issues would bediabetes, cancer, autoimmune diseases and hypertension. These can be fatal to ones heart if not taken care of properly.

In the article, "Sudden cardiac arrest without overt heart disease" it actually talks about an investigation on a survivor from cardiac arrest. In this investigation Dr. Modi and Dr. Krahn do some testing and get somefamilybackground information. First they found out that through this survivor their family history was not cardiac related at all. They ran a test called baseline electrolyte and metabolic testing to look at the cardiac electricity. This is to see if was related to the cardiac arrest.

Coronary imaging was another test the doctors ran and didn't show any abnormalities. Usually this type of test is to see if the patient has any

coronary artery disease especially the ones with previous symptoms of shortness of breath or chest pain. Echocardiography is to detect congenital heart defects and checks for cardiomyopathy. This is usually performed in a cath lab and watched very closely. They look at all the ventricles of the heart as well. A stress test is used to see how well your heart does under stress. You are hooked up to ecg machine and it looks at your QT waves.

This is a very popular test that is runned for patients with previous cardiac symptoms. There is also a more advanced imaging test they can run which is a MRI. This is more detailed when it comes to detecting things like an infection of the heart called myocarditis. The last test that was taken was a 12 lead EKG. This is a simple and fast test. This can see if a patient has tachycardia (fast heartbeat), Atrial fibrillation, Bradycardia (slow heartbeat), PVCs(Premature ventricular contractions) and other arrhythmia issues.

Sometimes the EKG doesn't catch it because it literally is a 5 second test. The other way is to wear a heart monitor that you can wear from 20-30 days. This is a sure way to find out if there is an issue. There has been an instance where a patient has a normal sinus rhythm at the doctors office and then wears a heart monitor will find something on it. It can be quite scary! Luckily they have medicine for lots of these cardiac issues. Medicines can vary from beta blockers to cholesterol pills to take on a daily basis.

The beta blockers are simply to regulate blood pressure and heart rate; and cholesterol pills that help lowers it to keep from the arteries to get filled with plaque which can later cause a heart attack. Sometimes with these medications there are risks that can happen with all the side effects. Some

people never have side effects and others do. The only way to help that is to typically have surgery or if it's not bad enough just live your life.

Unfortunately you can't control everything but just be cautious.

Finally with all the tests and medications out there to help diagnose why this person had a sudden cardiac arrest there is more testing that needs to be performed to get more answers. The doctors are considering doing genetic testing. They believe this might help with future cardiac arrests don't to happen. Although there are many tests that were talked about like MRI, stress tests, EKG, Cath lab procedures and even medicines can't control what might happen to anyone. With all thistechnologywe can only do so much and protect only what we know. Hopefully with more research there will be a better outcome.