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CPR Can Do More Harm Than Good Without a Defibrillator

Analysis by Dr. Joseph Mercola | January 09, 2024

STORY AT-A-GLANCE

- CPR classes were introduced to the public in 1972; after decades of data, a 2010 study showed the overall survival rate of CPR outside the hospital was 7.6% in a cohort of 142,720 people. Another study demonstrated those with underlying chronic disease generally had worse outcomes than those without chronic disease
- A significant factor that influences CPR outcome is the reason for the cardiac arrest. When your heart stops because of an abnormal heart rhythm, such as tachycardia or fibrillation, the process can be reversible with a defibrillator. Those with a shockable rhythm had a nearly three-fold higher odds of 30-day survival
- The coronary artery calcium measurement or CAC score, may be the "master measure for cardiac disease," according to Ivor Cummins and which the American Heart Association says is one way to estimate the risk of heart attack or stroke
- Your cardiovascular system is influenced by several factors, including nutrition, sleep, exercise, stress and medications. Each plays a unique role in supporting or damaging cardiovascular health. Consider this list of suggested factors and links to articles with more in-depth information to help you on your journey to better health

According to the Centers for Disease Control and Prevention,[1] 90% of the annual health care expenditure which totals $4.1 trillion is directed to people with chronic and mental health conditions. One of those is cardiovascular disease, which is the cause of more than 877,500 deaths each year.

The economic toll on the system is $216 billion and $147 billion in lost productivity on the job. According to the CDC, nothing kills more people in the U.S. than heart disease and stroke. While the statistics are disturbing, cardiovascular disease can also lead to nonlethal stroke, heart attack, disability, serious illness and a lower quality of life. These conditions can trigger fatigue, depression and related problems.

Cardiopulmonary resuscitation (CPR) is an emergency procedure that is typically used in individuals when their heart stops beating. According to the American Heart Association, CPR can double or even triple the chances of survival.[2] But how accurate is that estimation and what is the outcome after CPR?

The common term for when a heart stops is heart attack, but this is not an accurate description of the physiological events that lead up to when a heart stops. Additionally, your response to CPR may be based on several factors, including why your heart stopped in the first place.

What Makes the Difference in Your Response to CPR?

According to the American Heart Association,[3] in 1933, researchers at Johns Hopkins University discovered that external compressions on a dog's sternum could adequately supply circulation to the brain until a defibrillator could restart the heart. In 1972, the first CPR class to train the public was released and in the first two years trained more than 100,000 people.

After decades of using CPR in the public and medical institutions, a 2010 study[4] showed the overall rate of survival of CPR outside of the hospital was 7.6%. The data were gathered from 142,720 patients who were hospitalized after having a cardiovascular event.

Those who survived to discharge were more likely to have been witnessed by a bystander or EMS, or who received bystander CPR. Of the 53% of events witnessed by a bystander, only 32% received CPR. Based on this data, the researchers found that the number needed to treat to save one life was from 16 to 23 for those who were witnessed

by an EMS, 17 to 71 who were witnessed by a bystander and 24 to 36 for those who received bystander CPR.

Another study[5] looked at in-hospital CPR in older adults who had chronic disease. The study concluded that older recipients with one of six underlying chronic diseases generally have worse outcomes than CPR recipients who do not have chronic disease. Of the 358,682 people who received CPR in the hospital, those with chronic disease were less likely to survive to discharge.

This data support a report by journalist and ER physician Clayton Dalton in NPR,[6] in which he describes the neurological injuries that can occur[7] and the additional pain and indignity that can be traumatizing to the health care providers involved in resuscitation.[8] As described, chronic illness is one factor in the odds of survival in people who received CPR.

Another is age. A 2017 Austrian study[9] found age was a significant factor in the rate of restoration of spontaneous circulation after CPR. The 30-day survival rate decreased as the participants' age increased. While patients older than 85 had the worst neurological outcomes, frail individuals had the worst outcomes overall with a 30-day survival rate of 5.6% and a favorable neurological outcome of only 1.1%.

Is Your Heart Attack a Clot or an Electrical Dysfunction?

Another factor that influences your outcome from CPR is the reason for your cardiac arrest. NPR characterizes CPR as a bridge and not a treatment.[10] CPR is typically the first step at resuscitation after your heart is stopped, but it doesn't address the underlying reason for the arrest. When your heart stops because of an abnormal heart rhythm, such as tachycardia or fibrillation, the process can be reversed with a defibrillator.

Modern automated defibrillators are generally accessible in many public areas and do not require any medical training to use. A 2017 study[11] found that in the 13,860 patients who experienced a cardiac arrest and were defibrillated, those with shockable rhythms

were associated with a significantly higher rate of 30-day survival and conversion to shockable rhythm was associated with a nearly threefold higher odds of 30-day survival.[12]

> *"Taken all together, we know that a young or middle-aged person without significant medical problems who experiences sudden, unheralded cardiac arrest — which is more likely to be caused by a shockable rhythm — has a better shot at recovery than an older person with several medical problems that suffers a cardiac arrest in the context of an acute illness like severe pneumonia,"* NPR summarized.

Your choice for CPR needs to be made before the event occurs. It's helpful to remember that some survivors sustain neurological damage from the maneuver, and others experience internal laceration and bleeding when the ribs or sternum crack from it. This is an important conversation to have with your family and the individual who holds your medical power of attorney.

Can You Predict a Heart Attack

YouTuber Ivor Cummins gave a presentation entitled "Avoiding and Resolving Modern Chronic Disease" at the Low Carb Denver 2019 conference.[13] During the YouTube presentation Cummins discusses the root causes of heart disease and other chronic health problems in the context of his father, who died of heart disease and also suffered vascular dementia for roughly 15 years.

Cummins believes his father lost approximately 20 years of his health span, for lack of access to better information. Cummins also believes that with appropriate nutrition and lifestyle modifications, humans can live past 100 and remain healthier far longer than they do now. He notes that there's little point in a long life when you're chronically ill and cannot enjoy that life.

He also discusses the importance of a coronary artery calcium measurement, or CAC score, which he refers to as the "master measure for cardiac disease."[14] As noted by the

American College of Cardiology,[15] a CAC scan "is one way to estimate someone's risk of developing heart disease or having a heart attack or stroke." The reason for this is that calcium deposits in your arteries signal the buildup of plaque, which over time clogs your arteries.

Cummins cites research[16] showing that having a CAC score of zero in middle age means you have a very low risk (1.4%) of heart attack in the following decade. A low score between 1 and 100 raises your risk to 4.1%; an intermediate score between 101 and 400 raises your risk to 15%; and a high score between 400 and 1,000 puts your risk at 26%. Above 1,000, your risk of a heart attack within the next 10 years is 37%.

He also cites data from the Framingham study showing the cardiovascular disease (CVD) risk for seniors with a zero CAC score is nearly identical to that of a 50-year-old with a zero score. Ditto for those with intermediate scores. In other words, while age is typically characterized as the primary risk factor for CVD, the CAC score takes precedence when it comes to identifying your real risk, and transcends other risk factors.

Needless to say, if you stop the calcification progression, you decrease your risk of CVD, and the earlier you catch it, the better. Ideally, discuss your wishes with your doctor, who can refer you to a facility that performs the scan.

Tips to Reduce Heart Damage

Your cardiovascular system is complex and influenced by several factors, including nutrition, sleep, exercise, stress and medications. Each of these plays a unique role in supporting or damaging cardiovascular health.

Research is continuing to identify factors that influence heart health and ways you can use this information to support and take control of your health. The following are some of those factors with links back to articles that provide more in-depth information to help you on your journey to better health.

Stress — Emotional stress is highly associated with broken heart syndrome, also called Takotsubo syndrome (TTS). People with TTS describe sudden heart attack-like symptoms, including chest pain and difficulty breathing. In some cases, it may be misdiagnosed as a heart attack, but there are no blocked arteries.

Instead, the left ventricle will temporarily enlarge and not pump enough blood, which can lead to severe short-term hard failure.[17] Many make a full recovery within several weeks. Chronic stress may also contribute to heart disease.[18] Consider stress reduction techniques such as yoga, meditation, exercise and Emotional Freedom Techniques (EFT).

Omega-3 and vitamin D — People with Type 2 diabetes who used omega-3 supplements had a lower incidence of hospitalization with heart failure;[19] vitamin D can impact myocardial dysfunction in patients with congestive heart failure.

CoQ10 or ubiquinol — CoQ10 is a powerful, fat-soluble antioxidant with anti-inflammatory properties and plays a role in energy production. CoQ10 and ubiquinol are particularly important in the mitochondria helping to prevent the formation of free radicals and reduce the risk of oxidative stress.

Vitamin K2 — People who ate foods high in vitamin K1 and K2 had a 34% overall reduced risk of any atherosclerosis-related heart disease, which supports past studies that show vitamin K2 is heart-protective.

Vitamin C — Vitamin C[20] is an essential factor in many enzyme reactions, and several cohort studies have shown that it's associated with a lower risk of cardiovascular conditions such as stroke, high blood pressure and coronary heart disease.

Magnesium — According to one scientific review,[21] including several decades of studies, low magnesium appears to be the greatest predictor of heart disease.

Lumbrokinase — Lumbrokinase, a complex fibrinolytic enzyme extracted from earthworms, contains a bioactive protein that helps prevent heart-related issues like

thrombosis, stroke and heart disease.

Cranberries — Eating cranberries for one month showed improvement in flow-mediated dilation (FMD) in healthy males. This measures endothelial function and has proven to be an effective prognostic indicator of future heart events.

Pomegranates — Pomegranate's benefits are primarily attributed to their antioxidant activity, which benefits your heart in several ways, including lowering blood pressure, slowing or even reversing the growth of plaque formation in arteries, improving blood flow and keeping arteries from becoming thick and stiff.

Nutrient-rich vegetables — Nitrates could reduce harmful inflammation in people with coronary heart disease; certain leafy greens have high amounts of nitrates that naturally boost your nitric oxide level.

Linoleic acid — This is the most pernicious toxin in the modern diet, which makes up 60% to 80% of omega-6 fats and is the primary contributor to most chronic diseases, including heart disease.

Exercise — People who exercised between 8 a.m. and 11 a.m. had the lowest risk of coronary heart disease and stroke, and those who exercised in the evening disrupted their circadian rhythm, which is associated with the dysregulation of the cardiovascular system and more. Data also show even weekend warriors had reduced all-cause and cause-specific mortality rates when compared to people who did not get 150 minutes of moderate exercise each week.

Resistance exercise — Muscle mass and strength are directly related to blood flow resistance and heart health. Aerobic activity does not improve blood flow and vascular conductance, but resistance training does and is a strong predictor of survival.

Sauna — Sauna bathing can mimic exercise to increase your longevity and health span. Men using Finnish-style, dry heat saunas seven times per week cut their risk of

death from fatal heart problems in half, compared to those who used it only once a week.

Breathing exercise — Using slow breathing methods can lower your blood pressure, thereby reducing your risk of related heart attack, stroke and heart disease. People doing high-resistance breathing exercise for six weeks had an average reduction of 9 mmHg in systolic blood pressure; the daily training consists of 30 breaths a day.

Sleep — A lack of quality sleep may be associated with nearly every heart-related death, and also may be associated with heart failure, stroke, diabetes and worsening obesity. Data suggest that higher-intensity physical activity is not enough to mitigate the rapid cognitive decline that is associated with insufficient sleep.

NSAIDs — Commonly prescribed to treat pain, nonsteroidal anti-inflammatory drugs (NSAIDs) are linked to an increased risk of heart failure in people with Type 2 diabetes.

COVID Shots — During an interview in January 2023, just days after Damar Hamlin went into cardiac arrest on the football field, Dr. Peter McCullough discussed the rising number of elite and well-conditioned athletes who have experienced cardiac arrest during practices or games.

During the August 3, 2023, Australian Senate COVID hearing, Sen. Gerard Rennick asked Dr. Krishan Thiru, Pfizer's Australian medical director, to explain the mechanism of how the mRNA COVID shot causes myocarditis. Thiru talked in circles rather than answering the question, which raises serious questions about the company's scientific qualifications, or if they know but are refusing to admit it for fear of liability.

Cholesterol — It is just as important to identify what isn't important as what is important. While there are ways to estimate your risk of heart disease using cholesterol measurements, there is no evidence that cholesterol highly influences heart disease and is likely a false narrative used to bolster sales of statin medications.

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