

Tom Petty, Mainstay Rocker, Dies at 66 after Cardiac Arrest



By Jamie Wells, M.D. — October 2, 2017



Credit: Wikipedia [1]

It is a sad day for family and fans of musician Tom Petty. As per multiple news outlets, the legendary rocker died today at the age of 66 after suffering an apparent cardiac arrest last night.

[TMZ reported](#) [2], as per law enforcement, he “was rushed to the hospital...after he was found unconscious, not breathing and in full cardiac arrest...EMTs rushed to his Malibu home and were able to get a pulse. He was rushed to the UCLA Santa Monica Hospital and our sources say he was put on life support.” Today, they go on to state the performer had “no brain activity” and a “decision was made to pull life support.”

What is cardiac arrest?

Cardiac arrest is often confused with the term *heart attack*. They are different. Cardiac arrest occurs suddenly, often unexpectedly, as the heart entirely stops functioning. This can be precipitated by a disturbance in its electrical system, also known as an arrhythmia. If function is not rapidly restored with cardiopulmonary resuscitation (CPR) and early defibrillation, then death is imminent and the brain gets deprived of oxygen as do the lungs and organs. The heart won't pump and the individual can't manifest a pulse or remain conscious. If enough time passes without correction, then the neurological damage will be irreversible. This can happen in someone with underlying known heart disease or in someone where it has not been diagnosed. The *why* can vary.

A **heart attack** can prompt a cardiac arrest---but it doesn't always. In a heart attack, there is a blockage in a vessel (or more than one) that supplies blood to the heart muscle. If that flow is not restored, then that particular piece of heart tissue dies. A problem in circulation ensues. It is

usually accompanied by intense symptoms though those can differ between people, especially men and women (see [Heart Disease In Women: Fact Vs. Fiction](#) [3] to appreciate the differences).

Time Is of The Essence...

The urgency around timely CPR and resuscitation in a cardiac arrest is due to the temporal link with worsening oxygenation to the brain (and vital organs). The longer intervention is delayed, the greater the likelihood of irreversible damage.

According to the American Heart Association ([AHA](#) [4])— in the United States—more than 350,000 out-of-hospital cardiac arrests (OHCA) occur annually. Survival is fundamentally linked to early, rapid intervention of cardiopulmonary resuscitation (CPR). Nearly 90% of OHCA's are fatal. For those who receive immediate (or within the first few minutes) CPR, their chances of survival improve two to threefold. Only 46% of people who experience this get the help needed. In the home is where 70% take place, so possessing the ability to save a life will tend to be orchestrated by a loved one.

On November 12, 2016, JAMA Pediatrics published "[Association of Bystander Cardiopulmonary Resuscitation with Overall and Neurologically Favorable Survival after Pediatric Out-of-Hospital Cardiac Arrest in the United States](#) [5]." It concluded that bystander CPR improved outcomes in pediatric OHCA's—especially when conventional methods as opposed to compression-only CPR were employed.

In 2015, JAMA published "[Association of Bystander and First-Responder Intervention with Survival after Out-of-Hospital Cardiac Arrest in North Carolina, 2010-2013](#) [6]." The findings demonstrated after statewide interventions the amount of OHCA receipt of bystander CPR and first-responder defibrillation increased which prompted improvement in survival. In addition, bystander CPR was associated not only with enhanced chance at survival, but also one with favorable neurological outcome. These studies were further supported by work in Japan and Denmark, to name a few. The data is out there. The results repeatedly in sync. (See [Want a Nation of Super Heroes? Early CPR Makes Every Second Count](#) [7]).

In Summary...

Cardiac arrest sadly impacted the beloved Tom Petty. As with all news stories, it is likely there will be further developments with the passage of time. As always, we wish his family and loved ones much peace during such a difficult time.

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Links

[1] https://commons.wikimedia.org/wiki/File:Tom_Petty_2010.jpg

[2] <http://www.tmz.com/2017/10/02/tom-petty-found-unconscious-full-cardiac-arrest/>

[3] <https://www.acsh.org/news/2017/07/25/heart-disease-women-fact-vs-fiction-11598>

[4] <http://yourethecure.org/>

[5] <http://jamanetwork.com/journals/jamapediatrics/article-abstract/2583454>

[6] <http://jamanetwork.com/journals/jama/fullarticle/2397833?linkId=15660656>

[7] <https://www.acsh.org/news/2016/11/16/want-nation-super-heroes-early-cpr-makes-every-second-count-10440>