

Myocarditis Caused by COVID-19 Vaccine Spike Protein Is Often Not Detected by Typical Cardiac Tests

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Joseph Keating was only 26 years old when he died of myocarditis on Nov. 12, 2021, four days after receiving his third dose of Pfizer's COVID-19 vaccine. Mr. Keating had no idea he was experiencing [a "rare" heart problem](#) from his vaccination.

Family members said Mr. Keating's only warning signs were fatigue, muscle soreness, a sore throat, and an increased heart rate. He did not experience any hallmark signs of a heart problem, such as chest pain, shortness of breath, or a fluttering heart that would warrant a trip to the emergency room.

According to his autopsy report ([pdf](#)) and [death certificate](#), Mr. Keating died of severe heart damage from "myocarditis in the left ventricle" due to the "recent Pfizer COVID-19 booster vaccine."

When the pathologist's preliminary analysis of Mr. Keating's heart appeared normal, he decided to take 22 different slides of tissue for further assessment and discovered vaccine inflammation had damaged and attacked his entire heart.

Mr. Keating's sister Kaylee Koch, in correspondence with The Epoch Times, said her family contacted the Centers for Disease Control and Prevention (CDC), legislators, local news stations, their governor, and the local health department, yet have received no response.

According to the CDC's website, the agency [actively monitors](#) reports of myocarditis and pericarditis after COVID-19 vaccination, which includes "reviewing data and medical records and evaluating the relationship to COVID-19 vaccination." The CDC also states they [investigate reports](#) to their Vaccine Adverse Event Reporting System (VAERS)

classified as “serious” by attempting to obtain medical records to better understand the event. Yet according to the family, the CDC never investigated Mr. Keating’s death or requested his medical records.

Mr. Keating’s family sent documentation, including the autopsy report, to the National Institute of Allergy and Infectious Diseases (NIAID) in hopes they could find answers and prevent the same fate from happening to others.

His sister said the NIAID disregarded his documentation and concluded Keating’s myocarditis and resulting death were not caused by the vaccine but also could not identify or attribute his death to any other cause.

CDC’s Myocarditis Definition Excludes Severe Cases

Myocarditis is heart muscle inflammation that can lead to cardiac arrhythmia, cardiac arrest, stroke, and death. The [National Organization for Rare Disorders](#) states that myocarditis can result from infection but is more commonly a result of the body’s immune reaction to the initial heart damage.

According to VAERS, [26,103 cases](#) of myocarditis and pericarditis were reported between Dec. 14, 2020, and July 28, 2023, with [19,855 cases](#) attributed to Pfizer’s COVID-19 vaccine and [5,729 cases](#) to Moderna.

According to the [CDC’s website](#), the agency began investigating the long-term effects of myocarditis in 2022 by contacting anyone who reported an event to VAERS that met the agency’s case definition for myocarditis. Mr. Keating’s family was never contacted.

Although the CDC says myocarditis following COVID-19 vaccination is a rare and mild adverse event, the agency uses a [narrowed case definition](#) that excludes cases like Mr. Keating’s.

To meet the CDC’s case definition of myocarditis, people must have had “symptoms such as chest pain, shortness of breath and feelings of having a fast-beating, fluttering, or pounding heart, and medical tests to support the diagnosis of myocarditis and rule out other causes.”

Based on this definition, the [CDC can exclude cases](#) of cardiac arrest, ischemic stroke, and death due to heart problems that occur before one can go to the hospital or obtain a diagnosis. Mr. Keating wasn’t diagnosed with myocarditis prior to death and did not experience the symptoms that would typically fall under the CDC’s case definition. Yet he died of myocarditis following his third COVID-19 vaccine dose.

The CDC website does not state what happens to these cases, and there is no indication they are followed or included in the CDC’s myocarditis numbers.

Myocarditis Induced by COVID-19 Vaccination Is Different From Other Causes

Results of a large cohort study published in April 2022 in the [Journal of the American Medical Association Cardiology](#) showed both first and second doses of mRNA vaccines were associated with an increased risk of myocarditis and pericarditis. For those who received two doses of the same vaccine, the risk of myocarditis was highest among males aged 16 to 24 after the second dose.

Researchers noted the findings to be consistent with data showing between four and seven excess events in 28 days per 100,000 vaccinees after Pfizer vaccination and between nine and 28 excess events per 100,000 vaccinees after Moderna.

“There is emerging evidence following mRNA injections that myocarditis is different than other causes and much more common than originally thought or admitted to by the CDC,” interventional cardiologist Dr. Jack Askins told The Epoch Times in an email.

“Cardiac involvement following mRNA ‘vaccination’ is approximately 3% according to a [recent Swiss study](#) (not 0.001% as claimed by the CDC).”

He added that studies assessing troponin elevations reveal incidence is much higher than incidence based on symptoms. Troponins are proteins released into the bloodstream when heart damage occurs. A cardiac troponin test measures the levels of troponin T or troponin I proteins in the blood. Typically, troponin stays inside the heart muscle’s cells, but damage to those cells causes troponin to release into the bloodstream. The higher the troponin levels in the blood, the more extensive the heart damage.

Before the COVID-19 vaccine rollout, myocarditis caused by viral infections such as adenovirus and influenza was the most common cause of heart inflammation in children, pediatric cardiologist Dr. Kirk Milhoan told The Epoch Times. Although myocarditis can be caused by COVID-19, the myocarditis developed by a healthy young person post-infection is “extremely mild.”

According to Dr. Milhoan, myocarditis caused by the COVID-19 vaccine differs from viral myocarditis because an infection of the heart isn’t causing the damage. It’s being damaged by the “spike protein that’s cardiotoxic to the heart,” which causes inflammation in the three main vessels of the heart and has a different process.

“There’s a difference between the body encountering a virus naturally that causes myocarditis and actively giving the body something we know causes harm,” he said.

A 2023 study [published in Circulation](#) showed mRNA vaccine-induced immune responses did not differ between those who developed myocarditis and those who did not, but “free spike antigen was detected in the blood of adolescents and young adults who developed post-mRNA vaccine myocarditis, advancing insight into its potential underlying cause.”

In other words, the study found that spike protein was detected in the blood of individuals with post-vaccine myocarditis but was not found in vaccinated control subjects with no myocarditis.

Dr. Askins said autopsies have shown spike protein from vaccination in the myocardium of patients who died following COVID-19 vaccination and should be required in all cases where the cause of death is “unknown,” in cases of “sudden adult death syndrome,” or where a sudden death leaves “doctors baffled.”

Myocarditis Caused by COVID-19 Vaccination Often Evades Normal Tests

According to Dr. Milhoan, obtaining an accurate diagnosis of vaccine-associated myocarditis is challenging.

“The way the vaccine injury works, the heart often forms a scar that we don’t always pick up on our other usual tests. Normally if we study someone with suspected myocarditis, we will get labs that reveal damage to the myocardial cell, such as a troponin level, an EKG to see how the heart looks electrically, an echocardiogram, and a stress test,” he said. “But these are often normal in someone with myocarditis following COVID-19 vaccination.”

This is why the gold standard for detecting myocarditis following COVID-19 vaccination is cardiac magnetic resonance imaging, also known as a cardiac MRI, Dr. Milhoan said. A cardiac MRI is used for more complex heart conditions and shows a more detailed picture of what’s happening in the heart. It can detect damage to the heart muscle that goes undetected by other tests.

A September 2022 study [published in The Lancet](#) assessed the clinical outcomes and quality of life of 519 adolescents and young adults at least 90 days after the onset of vaccine-associated myocarditis.

Of the 519 patients, a subset of 151 patients had cardiac MRIs, with 81 patients displaying one or more abnormalities, including 71 with late gadolinium enhancement (LGE) and 22 with edema—fluid or inflammation in the heart triggered by heart damage.

LGE is a technique applied in [cardiovascular magnetic resonance](#) to distinguish macroscopic scarring and heart attacks from the normal muscular tissue of the heart. It's a strong predictor of outcomes associated with an [increased risk](#) of all-cause mortality, heart failure hospitalization, and sudden cardiac death.

Treatment of Myocarditis Caused by COVID-19

Vaccination

The primary treatment for myocarditis, whether caused by a vaccine or virus, is to rest the heart and avoid exercise for six months, according to Dr. Milhoan. Patients who are very sick are given medications to lower their blood pressure and heart rate so the heart doesn't have to work as hard.

After letting the heart rest, a repeat cardiac MRI is done to evaluate the risk of cardiac death. If there's enough of a scar, doctors may consider putting in an implantable defibrillator to detect and stop irregular heartbeats, also known as arrhythmias.

"The heart has to beat at least 60 to 70 times a minute, which is over a hundred thousand times a day, so we can never completely let the heart rest like you'd let another muscle rest," said Dr. Milhoan. "The body is really good at healing itself, and the heart has an amazing ability to recover if we do not abuse it further."

Dr. Askins believes [reports of athletes collapsing](#) aren't necessarily due to exercise furthering heart damage but to the exertion that provokes arrhythmias.

"Weeks and perhaps months later, these arrhythmias may be provoked by exercise and a hyperadrenergic state—norepinephrine release resulting in collapse and sudden deaths in athletes and others," he wrote in an email to The Epoch Times.

As for the damage unique to vaccinated individuals caused by free-floating spike protein in the blood, Dr. Milhoan says there's currently no medicine or supplement to remove spike protein from the blood.

"We're trying things, but we don't have a protocol, and sometimes the problem is that the damage is already done," he said. "It's like when you already have a scar on your skin; you can do a lot of things, and you are still going to have a scar. Once a scar on the heart forms, you're at risk for all sorts of things, and you can do nothing to take that scar away."

Dr. Milhoan said everyone acknowledges COVID-19 vaccines can cause myocarditis, but the debate is over how common it is. The CDC says the condition is rare, but physicians knowledgeable about vaccine-associated myocarditis treating these patients and reviewing the data say that's not the case.

"With most vaccines, we are looking at a one-in-a-million side effect profile, but now we are in numbers that are no longer acceptable regarding the risk-benefit profile," he said. "I just want people to have accurate data to make informed decisions."

The Epoch Times reached out to the NIAID and the CDC for comment.