

Cardiac arrest in pregnant women more common than you'd think

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This shows physician anesthesiologists: experts in leading resuscitation teams for maternal cardiac arrest. Credit: Thinkstock/Getty Images

Although cardiac arrest during childbirth is rare, it may be two times more common than previously reported in the literature, suggests the first large U.S. study on the potentially deadly condition published in the April issue of *Anesthesiology*. The study, based on data for more than 56 million births, also found that cardiopulmonary resuscitation (CPR) was often successful, and that the survival rate improved between 1998 and 2011.

Maternal [cardiac arrest](#) means that the mother's [heart](#) stops beating, either before or after childbirth. More than one in 12,000 American women suffer from cardiac arrest during hospitalization for childbirth, according to the study. Researchers determined women who suffered cardiac arrest were more likely to be older, to be black or to receive care funded by Medicaid.

A number of health issues that may occur during childbirth can lead to cardiac arrest, including excessive bleeding, [heart failure](#), heart attack, preeclampsia, blood infection and [amniotic fluid](#) embolism, where amniotic fluid enters the mother's bloodstream. These issues can cause [irregular heart rhythms](#), or reduced blood flow and oxygen to the heart ([heart attack](#)); either problem can cause cardiac arrest.

"These are rare high-stakes events on obstetric units, and team preparation is critical to ensure that everyone is ready to act quickly and effectively," said Jill M. Mhyre, M.D., lead author of the study and associate professor of anesthesiology, of the University of Arkansas for Medical Sciences, Little Rock, Ark. "Fortunately, physician anesthesiologists are experts in leading resuscitation teams for maternal cardiac arrest and other emergencies that happen on the labor floor."

Using data from the U.S. government's Nationwide Inpatient Sample – the largest all-payer inpatient health care database in the United States – researchers identified 4,843 cardiac arrest events among 56,900,512

hospitalizations for childbirth, a rate of one in 11,749. The main causes of cardiac arrest included bleeding (44.7 percent), heart failure (13.3 percent), amniotic fluid embolism (13.3 percent) and [blood infection](#), or sepsis, (11.2 percent). Survival improved from 52% in 1998 to 60% in 2011.

"A 60 percent rate of survival from cardiac arrest is good, but maternal mortality in the United States remains unacceptably high," said Dr. Mhyre. "This information will assist health care providers to deliver the most effective maternal cardiopulmonary resuscitation (CPR) when both the mother's and baby's lives are on the line."

The study notes that the 60 percent survival rate exceeds that which had been previously reported in the literature. The authors hypothesize that this survival rate may reflect the relative health and fitness of the women in the childbearing population.

Provided by American Society of Anesthesiologists

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