

Alternate approach to traditional CPR saves lives

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A new study shows that survival and neurological outcomes for patients in cardiac arrest can be improved by adding extracorporeal membrane oxygenation (ECMO) when performing cardiopulmonary resuscitation (CPR). The study abstract was released today in an online supplement of the journal *CHEST* and will be presented at CHEST 2014, the annual meeting of the American College of Chest Physicians in Austin, Texas held October 25-30.

Despite advances in medical care, less than 20% of people who experience a [cardiac arrest](#) make a full recovery. An alternate approach to traditional CPR is the use of ECMO during CPR (E-CPR), which provides immediate cardiovascular support when traditional methods fail. E-CPR has been used increasingly in an attempt to improve outcomes after cardiac arrest.

Researchers at Thomas Jefferson University studied results of 100 ECMO procedures performed between 2010 and 2013. Of those 100 procedures, 24 cases unresponsive to conventional CPR received E-CPR. Of the 24 patients, 15 were male and nine female, with an average age of 47 years. Patients received E-CPR for a number of reasons, such as acute myocardial infarction, malignant arrhythmia, myocarditis, acute pulmonary embolism, and hypothermia.

ECMO support was provided for a mean of 5 days, resulting in 13 patients surviving, with seven discharged from the hospital with full neurological recovery. Six patients died post-ECMO from anoxic brain

injury, sepsis, and stroke. Researchers found that the 53% of ECMO survivors were discharged with full neurological recovery. "Based on the survival rates, E-CPR should be considered when determining the optimal treatment path for patients who need [cardiopulmonary resuscitation](#)," said researcher Graham Peigh, BA.

Provided by American College of Chest Physicians

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