



**ASE** American Society of  
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**STUDY REVEALS SUCCESSFUL AND NONINVASIVE TECHNIQUE TO TREAT  
BLOOD CLOTS**

*Pediatric and small adult patients among the many to benefit from findings*

**San Diego, CA – JUNE 14, 2010** – Researchers revealed a new, non-invasive alternative to treating catheter related blood clots in pediatric patients who need long term IV use, according to a study presented at the 21<sup>st</sup> Annual Scientific Sessions of the American Society of Echocardiography (ASE). This safe and noninvasive technique of eradicating catheter-related blood clots is a major breakthrough, as current methods of prescribing blood thinning medication and/or removing and replacing catheters to treat blood clots can be dangerous and painful, especially in children.

“We traditionally dissolve blood clots by administering a very potent blood thinning medication, but giving this medication to a small child is extremely risky,” said Dr. Shelby Kutty of University of Nebraska/Creighton University, a lead author of the study. “Blood thinning medications could cause a stroke or lead to excessive bleeding in small patients.”

Researchers found that by administering a special microbubble contrast agent intravenously and applying a high-energy pulse of ultrasound, the microbubbles disrupt and dissolve the clot. The study was conducted using a Definity-brand contrast agent.

Researchers tested this theory using pig’s blood to form a simulated intravascular clot. Twenty samples were tested using ultrasound: 10 of the tests used 3D ultrasound coupled with a continuous infusion of a microbubble contrast agent, while 10 used 3D ultrasound alone. Researchers saw a significant reduction in the size of the clots when microbubbles were coupled with 10 minutes of ultrasound treatment.

“Heart ultrasound has long been known as a diagnostic tool,” said Dr. Kutty. “Knowing that ultrasound can be used as a therapeutic tool will broaden the thinking of scientists looking for less invasive treatments of other conditions.”

The study was conducted by Shelby Kutty, Feng Xie, Shunji Gao, Lucas K. Drvol, John Lof, Scott E. Fletcher, David A. Danford, James M. Hammel and Thomas R. Porter at University of Nebraska/Creighton University Joint Division of Pediatric Cardiology; Division of Cardiology, Department of Internal Medicine, University of Nebraska Medical

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*The American Society of Echocardiography (ASE) is a professional organization of physicians, cardiac sonographers, nurses and scientists involved in echocardiography, the use of ultrasound to image the heart and cardiovascular system. The organization was founded in 1975 and is the largest international organization for cardiovascular ultrasound imaging. For more information on ASE, visit [www.asecho.org](http://www.asecho.org) or ASE's public information site, [www.SeeMyHeart.org](http://www.SeeMyHeart.org).*

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