

## **New Measuring TAPE Estimates Weight Of Kids Better Than Any Other Method**

PR Newswire

KANSAS CITY, Mo., May 6, 2013 /PRNewswire/ -- Researchers from [Children's Mercy Hospitals and Clinics](#) [1] in Kansas City, Mo., today presented data demonstrating that the Mercy TAPE, a new device to estimate the weight of pediatric patients (ages 2 months to 16 years old), is more accurate than any other method currently available for children. Pediatric weight estimates are used in time-sensitive situations and in cases where lack of resources means calibrated scales are not available.

Weight estimates are used frequently to determine appropriate medication dosage, fluid volumes for resuscitation, breathing tube sizes, shock voltages for cardio-respiratory arrest and more. They also help clinicians determine whether children are growing normally.

The data were presented at the [Pediatric Academic Societies](#) [2] meeting in Washington, D.C., the largest international meeting focused on research in child health, and published online last month in the [Annals of Emergency Medicine](#) [3].

The TAPE, which stands for "TAking the guesswork out of Pediatric weight Estimation," is based on an estimation technique called the Mercy Method. The Mercy Method estimates weight based on the length and circumference of the upper arm. The Mercy TAPE, which looks like a tape measure, translates the measurements into a weight that is displayed directly on the device and requires only simple addition by the user.

Children's Mercy Hospital researchers confirmed that this method performs as well in underweight and obese children as it does in children of normal weight. International studies also have demonstrated that it performs as well in children from Africa and Asia. Other pediatric weight estimation techniques that rely on age and/or length do not predict weight consistently across all ages, body types and ethnic groups.

"It is too common for existing weight estimation methods to produce 2- to 3-fold errors in weight. For many medicines, this could result in a child receiving no benefit from the drug or alternatively experiencing serious or life-threatening toxicities," said [Susan Abdel-Rahman, PharmD](#) [4], lead investigator for the study and a clinician in the Division of Clinical Pharmacology and Medical Toxicology at Children's Mercy. "The Mercy Method should allow doctors to deliver doses of medicine to children with more accuracy than ever before, and significantly reduce the risk of improper medication use in these critical settings."

The Mercy Method is just one example of how experts at Children's Mercy are

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making the use of medications in children safer and more effective. Working alongside Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) and the [Pediatric Trials Network \(PTN\)](#) [5], the clinicians at Children's Mercy apply the latest research and data to more accurately inform pediatric treatment and medication dosing, providing valuable new information about medical treatments of children to regulators and pediatricians.

Clinical investigators from Children's Mercy are presenting more than 35 studies at the 2013 Pediatric Academic Societies meeting.

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### **Links:**

[1] <http://childrensmercy.org/>

[2] <http://www.pas-meeting.org/>

[3] <http://www.annemergmed.com/home>

[4] <http://www.childrensmercy.org/findadoctor/view.aspx?id=8709>

[5] <https://pediatrictrials.org/>