

Hands-only CPR in high school class pumps up likelihood of bystander response to cardiac arrest

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Freshmen at eight Florida high schools who learned how to provide circulatory support to someone in sudden cardiac arrest using chest compressions without mouth-to-mouth ventilations said they would be significantly more comfortable performing the skill in a real-life situation when their training included a hands-on component, according to a new study.

The study, to be presented at the 2015 American Academy of Pediatrics National Conference & Exhibition in Washington, DC, examined a collaborative project between Hillsborough County Public Schools, the American Heart Association—Tampa Bay Metro Board, Hillsborough Fire Rescue and the Johns Hopkins All Children's Heart Institute. The project included all ninth-grade [students](#) attending eight high schools in urban, suburban and more rural regions within the Tampa area.

Prior to participating in this CPR education project, students watched a traditional [training](#) video in class. The new program studied combined a video component plus hands-on training with manikins to learn compression-only CPR. Post-test results showed that the hands-on training significantly improved the students' willingness to perform CPR and overall knowledge about effectively performing the skill. Nearly three-quarters of the students responded that they would feel comfortable performing hands-only CPR if they witness someone having a cardiac arrest, for example, compared to 47 percent before the training session.

Lead author Jacquelyn F. Crews, M.D., a pediatric resident at All Children's Hospital Johns Hopkins Medicine in St. Petersburg, said the findings are important because survival rate after sudden cardiac arrest that occurs outside the hospital

without CPR is less than 10 percent.

"This grim statistic may drastically improve to greater than 60 percent with the addition of immediate CPR," Dr. Crews said. "Hands-only CPR is an effective way to teach large groups of people effective lifesaving skills and increase their willingness to use them if they witness a [cardiac arrest](#)," she said.

Co-author Elena Rueda-de-Leon, MD, MS, also a pediatric resident at All Children's Hospital Johns Hopkins Medicine, said that even before the study's results were in, the project's impact on students was apparent.

"We saw confidence build in the teenagers' eyes, body language, and knowledge during training of this critical skill," Dr. Rueda-de-Leon said. "If CPR hands-only training became part of every school curriculum, we could see an exponential number of life-saving hands available at the drop of a heartbeat."

More information: Crews will present the abstract, "Effectiveness of Mass Hands-Only CPR with Psychomotor Skill Training in High School Students in the United States," at 4:15 pm on Friday, Oct. 23 in the Washington Marriott Marquis Ballroom Salons 1-3. To view the abstract, aap.confex.com/aap/2015/webprogram/Paper30444.html.

Provided by American Academy of Pediatrics

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