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New Research Advances Understanding of Cervical Spine Injuries in Children Involved in Motor Vehicle Crashes

New research funded by the Center for Child Injury Prevention Studies (CChIPS) was published earlier this month in the journal *Injury*. While fatal cervical spine injuries to children in motor vehicle crashes are rare, the researchers found that they are more commonly seen in girls, in children in passenger restraints, and in children who also suffered traumatic brain injury due to the crash.

"This research confirms that cervical spine injuries are no more common in fatal crashes than they are in non-fatal crashes involving children," says Michael Nance, MD, director of the Pediatric Trauma Program at The Children's Hospital of Philadelphia (CHOP) and a co-author of the study. Nance and his team of researchers from CHOP, The University of Pennsylvania, and Ohio State Medical Center used a novel method to link two large national mortality databases that allowed in-depth analysis of a rare injury.

Nance's team points out that for the vast majority of crashes, vehicle and child restraints reduce the risk of death and most serious injuries. The new findings point to the importance of the continued work by CChIPS, the Center for Injury Research and Prevention at CHOP, and others aimed at preventing all serious injuries for children in vehicle or child restraints in crashes.

Like all of CChIPS's work, the aim of this study was to lead to the translational research industry partners require to improve pediatric safety. Specifically, this new research can be translated into the improved capability of child anthropomorphic test dummies to predict cervical spine injuries.

Read the study abstract.

Engage Parents for National Teen Driver Safety Week October 18-24, 2009

Start planning now for National Teen Driver Safety Week (NTDSW) 2009 to help prevent teen crashes and injuries in your community. This year we recommend you engage parents in your outreach efforts to increase their awareness of teen driver safety and their important role in helping to prevent crashes. Research is showing that parents can play a large part to ensure teens stay safe on the road. In October 2007 Congress designated NTDSW as a time for communities, schools, and families to raise awareness and to provide solutions for teen driver crashes, the leading cause of death for teens in the U.S.

To help with parent engagement and education, please visit the NTDSW 2009 web page. Be sure to check back October 5 to tap into research-based resources you can use during NTDSW. Several research papers from the Young Driver Research Initiative, a research alliance between CHOP and State Farm Insurance Companies®, will be published in early October. Downloadable resources based on the findings from these papers will also be available on October 5. Use these resources to support your efforts to include parents in the teen driver safety conversation.

Social Media Spreads the Word About AfterTheInjury.org

The Center's newest website is drawing some fanfare from the world of social media. Thanks to news coverage in national publications and several parenting blogs, word is starting to spread about AfterTheInjury.org. Based on nearly a decade of research on emotional reactions to injury by CHOP pediatricians, psychologists, and trauma experts and tested with families, the site offers on-line information, 24 hours a day, to help parents and children cope with pediatric injuries after they occur and to promote full physical and emotional recovery.

[Read the USA Today column.](#)
[Read the Multiples and More blog.](#)
[Read the Five Fish blog.](#)
[Read the Army Household6 blog.](#)
[Follow AfterTheInjury.org on Twitter!](#)

If you know a family or a professional who would find www.AfterTheInjury.org beneficial, please share the link and help us spread the word about this unique resource.

Youths Helping Youths

The youth intervention of the Philadelphia Collaborative Violence Prevention Program (PCVPC) Centerpiece Project, PARTNER: Participatory Action Research to Negotiate Every Response, was recently held at the Sayre Beacon Program in Philadelphia and the West Philadelphia YMCA. At both sites, the youths held a Leadership Fair where they presented posters on projects and initiatives they would like to see implemented in their community. Additionally, as part of the Leadership Fair, youth at the West Philadelphia YMCA wrote a letter to the City Mayor outlining concerns they have regarding their community and what they view as potential solutions. After reading the letter to the YMCA and PCVPC staffs, they mailed it to the Mayor.

PARTNER takes a multi-component, multi-level approach to preventing youth violence. It focuses on developing and testing the effectiveness of an aggression prevention program that combines youth problem-solving skills and leadership with parenting/family outreach and community workshops. For more information on the PCVPC, visit www.chop.edu/pcvpc. The site offers violence prevention resources, updates on the Center's research activities, data about violence prevention in Philadelphia, and much more.

Focus On: Verna S. Cole, PhD, MDiv



Verna S. Cole, PhD, MDiv, loves using her extensive background in educational leadership to help the Young Driver Research Initiative (YDRI) develop effective tools and interventions to reduce teen driver crash risk.

The daughter of two teachers, Dr. Cole always knew her path would lead to educating others. She has worked at all levels of Philadelphia's K-12 school system, as an administrator, emergency preparedness expert, trainer, and program planner and also served as the Program Director of the city's Community-Based Detention, Youth Advocacy Program. Now she's sharing her considerable skills with the multidisciplinary YDRI team.

"I enjoy working with the researchers. They see the world differently than educators," she says. "It's fascinating to see how they interact with the rest of the team to develop interventions based on their research to keep teens safe."

Dr. Cole is teaming up with driver's education instructors and school-based agencies across the nation to build a strong network for discussion, dissemination of research that is backed by science, and ongoing reflection. Through this synergy, Dr. Cole and the entire YDRI team are developing effective instructional and educational tools and outreach materials backed by science to reach as many teens and their families as possible. Part of that role is to work with researchers in studying how instruction should be designed and carried out during the learning-to-drive process.

"I will provide my insight into how instruction is a significant part of the interaction between a teen and parent or teen and driving instructor and how best to create it," she says. "Driver's Ed instructors are among the most dedicated folks I've ever met in any profession. It is an honor to interact with them."

Dr. Cole earned her PhD in Education-Organizational Leadership, Curriculum, and Instruction from The University of Pennsylvania and her Master of Divinity, Counseling and Administration from Yale University Divinity School. She also has completed coursework in emergency preparedness from Disaster Recovery Institute International.

"Through the YDRI team's efforts, we are working to bring hope back to the learning-to-drive process," says Dr. Cole. "Our primary mantra, that crashes are preventable, offers a strong foundation on which to design measurable interventions that will significantly impact the number of teen deaths from crashes. I'm proud to be a part of this initiative."

Harris Named INSIGHT Fellow

Patricia Harris, assistant to Drs. Flaura Winston and

Injury Center Researcher Chosen for NICHD Training Program

Jessica S. Hafetz, PhD, a behavioral scientist with the Young Driver Research Initiative (YDRI) at the Center, recently attended a special training program for junior investigators at the National Institute of Child Health and Human Development (NICHD), part of the National Institutes of Health (NIH) in Bethesda, MD. The week-long NICHD Summer Research Institute in Applied Child and Adolescent Development focused on helping these rising stars develop advanced research skills, obtain federal funding, and improve dissemination of findings to help achieve their research goals. Dr. Hafetz was invited to participate by the NICHD for her work in designing and evaluating programs and interventions to be delivered directly to families with teens for CHOP and State Farm's Young Driver Research Initiative.

Recent Presentations from the Injury Center

- Balasubramanian S, Seacrist T, Maltese M, Arbogast KA, et al. Head and Spinal Trajectories in Children and Adults Exposed to Low Speed Frontal Acceleration. 21st International Technical Conference on the Enhanced Safety of Vehicles. Stuttgart, Germany. June 15-18, 2009.
- Cole V, Holm, K, Bugbee M, Vaihinger C. Ride Like A Friend: School Champions. Students Against Destructive Decisions National Conference. Bethesda, MD. July 15, 2009.
- Kassam-Adams N. Traumatic Stress in Ill and Injured Children. Master Class at Emma Children's Hospital/Academic Medical Center. Amsterdam, The Netherlands. June 26, 2009.
- Seacrist T, Maltese M, Balasubramanian S, Garcia-Espana F, Arbogast KB, et al. Comparison of Passive Cervical Spine Flexion in Children and Adults. 21st International Technical Conference on the Enhanced Safety of Vehicles. Stuttgart, Germany. June 15-18, 2009.
- Winston FK. Linking Research with Policy: A Traffic Safety Perspective. National Conference of State Legislatures. Philadelphia, PA. July 21, 2009.

Recent Publications from the Injury Center

- Niles D, Sutton RM, Donoghue A, Kalsi MS, Roberts K, Boyle L, Nishisaki A, Arbogast KB, Helfaer M, Nadkarni V. Rolling Refreshers: A Novel Approach to Maintain CPR Psychomotor Skill Competence, *Resuscitation*. May 2009.
- Stawicki SP, Holmes J, Kallan M, Nance M. Fatal child cervical spine injuries in motor vehicle collisions: Analysis using unique linked national datasets. *Injury*. August 2009

Dennis Durbin at the Center, recently graduated from CHOP's INSIGHTS forum. As an INSIGHT Fellow, she was one of 29 CHOP employees selected for an intensive 10-month Minority Leadership Development program. By seeking continued growth and education, Harris represents the mission of CHOP and the Center for Injury Research and Prevention.

Support Our Center

The dedicated doctors, researchers, and outreach professionals at the Center for Injury Research and Prevention at CHOP are fighting to save the lives of children of all ages. But we need your help. To make a secure, on-line donation, please visit The Children's Hospital of Philadelphia Foundation Donation Page and select "Center for Injury Research and Prevention" in the drop-down menu. You also may telephone the CHOP Foundation at 267-426-6500. For more information on our research and programs, please visit www.chop.edu/injury.

The Center for Injury Research and Prevention Family of Websites

- The Center for Injury Research and Prevention (www.chop.edu/injury)
- Keeping Kids Safe in Crashes-English language – English language (www.chop.edu/carseat)
- Cómo Mantener a los Niños Fuera de Peligro Durante los Choques – Spanish language (www.chop.edu/asientos_infantiles)
- Keeping Young Drivers Safe (www.chop.edu/youngdrivers)
- National Teen Driver Safety Week (www.ntdsw2009.org)
- Philadelphia Collaborative Violence Prevention Center (PCVPC) (www.chop.edu/pcvpc)
- After The Injury: Helping Parents Help Their Kids Recover (www.AfterTheInjury.org)