

Message body

Tuesday, March 18, 2014
12:54 PM



MARCH 2014
CPS TEAM Colorado

Welcome to the newsletter for Child Passenger Safety Technicians, Instructors and Advocates in the great state of Colorado!

We hope you find all the information you need to stay connected to your fellow safety professionals for statewide CPS happenings, training and national information.

Please feel free to contact us if you would like to see content added or have questions concerning information in this newsletter.

We welcome misuse photos, unique stories and information about the great things going on in your community!



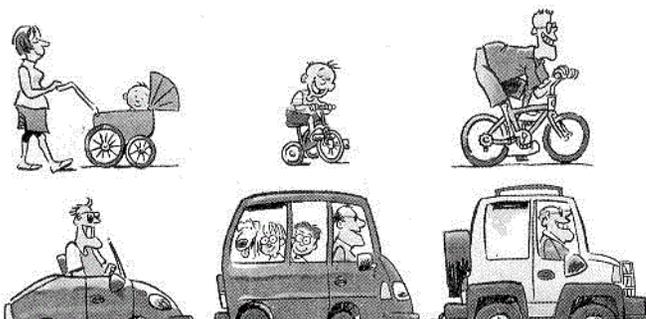
Have a great photo or story to share? Want to brag about your awesome team? We'd love to hear about it!

[Click here](#) to submit.



[CPS Training Calendar](#)

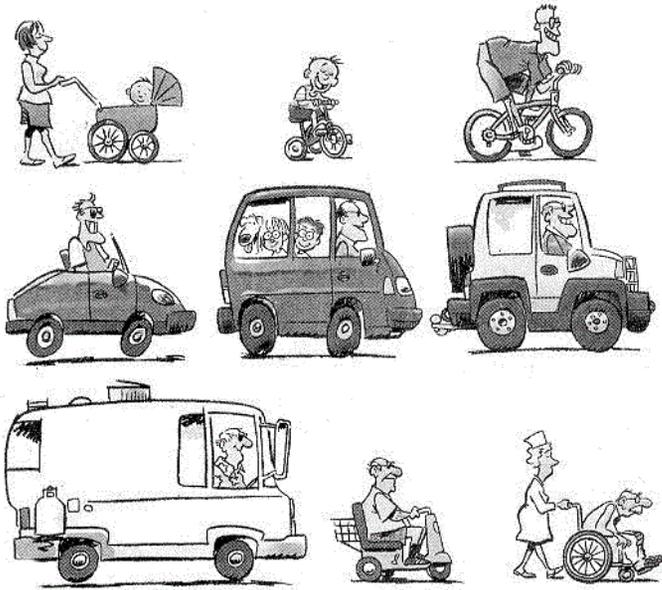
The Wheels of Life



Safe Kids and State Farm present: Child Restraint Manufacturer: Diono May 15, 2014 from 2 pm - 3 pm ET (East Coast/NY time) CPS CEUs available: 1(CHES/MCHES credit is also available). Register now: <http://bit.ly/May15web>



The Wheels of Life



The Hidden Danger of Supplemental Car Seat Products:



Interesting article from The Children's Hospital of Philadelphia, Center for Injury Research and Prevention

January 16, 2014

A question that often arises in the realm of child passenger safety is keeping children comfortable in their safety restraints. Some parents turn to products that are sold separately from the child restraint system (CRS) that advertise additional comfort, safety, or amusement for the child.

Known as aftermarket products, these can include shoulder belt padding or positioning devices, seat belt tightening devices, head cushions and car seat covers. As a Child Passenger Safety Technician, it can be challenging to explain to parents the potential dangers of these items. Because aftermarket products are sold separately, they are not evaluated under the same federal safety standard as a CRS.

In fact, many child seat manufacturers expressly warn consumers not to use these products. For example, Britax's child restraint manuals contain the following language: "The use of non-Britax Child Safety, Inc covers, inserts, toys, accessories, or tightening devices is not approved by Britax. Their use could cause this restraint to fail Federal Safety Standards or perform worse in a crash. Their use automatically voids the Britax warranty." Other manufacturers include similar language in their manuals. However, manufactures often do sell products specifically designed, evaluated, and approved for use with their specific CRS for

[CPS Training Calendar](#)



Safe Kids and State Farm present: Child Restraint Manufacturer: Diono May 15, 2014 from 2 pm - 3 pm ET (East Coast/NY time) CPS CEUs available: 1(CHES/MCHES credit is also available). Register now: <http://bit.ly/May15web>



Boosting Restraint Norms (BRN) - Promoting Booster Seat Use and Awareness: a community-based social marketing campaign designed to promote booster seat use among at-risk populations. [click here](#) for more information.

Recall information: [Links to several recallsheets](#) click on the name to be connected with the sheet:

* [Safety Belt Safe, USA](#)

* [University of North Carolina Highway Safety Research Center](#)

* [National Highway Traffic Safety Administration](#)

* [The Safety Restraint Coalition](#)



[Enter Seat Check Data Here](#)

BE SURE TO ENTER YOUR SEAT CHECK DATA (link above). THOSE WHO REPORT DATA WILL BE RANDOMLY SELECTED TO RECEIVE CPS GOODIES!!

parents to consider.

Ultimately, a CPS technician cannot tell a parent not to use an aftermarket product. However, parents should be made aware that these products may diminish the protective effect of a CRS. Although a child's comfort is important, ultimately their safety is the top priority for manufacturers and families.

Lindsey Mitros BA
Cchips.research.chop.edu



An example of belt routing misuse

Child Restraint System Misuse in the Field and in Full-Vehicle Crash Tests

Motor vehicle crashes continue to be the leading cause of death for children in the U.S., Canada, and Europe, and child restraint systems (CRS) can significantly reduce the risk of injury. Studies show, however, that CRS misuse can lead to less than optimal injury prevention when crashes occur.

This improper CRS use includes not using the appropriate CRS for the child's age, incorrectly attaching the CRS to the vehicle, and not harnessing the child in the CRS correctly.

To understand the real world restraint practices of the CRS consumer, in phase 1 of this study - 10,000 CRS inspection forms were examined from the Pennsylvania American Academy of Pediatrics (PA-AAP) Traffic Injury Prevention Project (TIPP) from 2007-2010.

Data collected included descriptive variables of the CRS consumer and child including child anthropometry; vehicle and CRS variables including year, make and model; CRS condition variables, including damage assessment and condition of labeling, and misuse variables specific to the common CRS types (rear facing (RF) Infant, RF Convertible CRS, forward facing (FF) CRS, Booster) and restraint fit information for children in belt restraints.

Three broad categories of misuse were considered:

- 1) improper restraint selection or placement in the vehicle,
- 2) incorrect or loose CRS-to-vehicle attachment, and
- 3) incorrect or loose restraint of the child in the CRS.

[Full publication available here:](#)

Principal Investigator: Matthew R. Maltese, PhD, The Children's Hospital of Philadelphia
Co-investigators: Mark Zonfrillo, MD, MSCE and Kristy Arbogast, PhD, The Children's Hospital of Philadelphia;

Suzanne Tylko, MSME, Transport Canada
Student: Melanie Ward, University of Michigan

IAB Mentors: Uwe Meissner, Technical Advisor; Keith Nagelski, Britax Child Safety Inc.; Eric Dahle, Evenflo Co. Inc.;

Doug Longhitano, Honda R&D Americas Inc.; Richard Bandstra, Volkswagen Group of America Inc.

CPS TEAM COLORADO WEBSITE

If you haven't been to the CPS Team Colorado website lately - Check out the 'new and improved site'. There is a great deal of helpful information for parents and caregivers, past newsletters, check forms, handouts, programs and information for CPS Technicians and Advocates.



RECIPIENTS WILL BE ANNOUNCED IN THE 'CONE AWARD' SECTION OF THIS NEWSLETTER.

DATA DRIVES DOLLARS, DOLLARS DRIVE PROGRAMS! ENTER YOUR DATA TODAY!

Steps to CPST Recertification: Recertification Requirements

CPS certification expires after *two years*. Technicians and Instructors are required to successfully complete the recertification process before their current certification expires.

Here is what you need to do to recertify:

Meet these requirements and record the activities in your online profile.

- * Conduct all five different types of seat checks.
 - * Participate in at least one community event (one checkup or community workshop).
 - * Participate in at least six continuing education units (CEUs). As part of ongoing quality assurance, you may be randomly selected for a CEU audit. Keep proof of content and completion of CEUs handy for three months after you recertify.
 - * You can monitor your audit status in your online profile. If you are an instructor, complete 20 Certification/Certification Renewal Course teaching hours.
 - * Pay the recertification fee. The recertification fee is \$50 for technicians and instructor candidates and \$60 for instructors.
- Check your online profile if you are not sure when your certification expires.

You must complete all recertification requirements, including paying the recertification fee, on or before the expiration date of your current certification.

[CPS TEAM COLORADO Advisory Council](#)



Online Training Available:

Five online Tech Updates on Recent CPS Research at UMTRI (1 CEU),

No More CPS Guesswork: Identifying and Using the Right Technical Resources (1 CEU),

FMVSS 213: The truth about Child Restraint Standards (1



Child Passenger Safety Training Courses

Date	Location	How to Register
April 1, 2014 8:30 a.m.-4:00 p.m.	Greeley Fire Department, 919 7th Street Greeley, CO 80631	E-mail - compfire@yahoo.com
April 3, 2014	Greeley Fire Department, 919 7th Street Greeley, CO 80631	E-mail - compfire@yahoo.com
April 4, 2014	Avada Fire Training Center 6651 Indiana Street Avada CO 80007	E-mail - vera.cps@teamco@gmail.com
April 14, 2014	Aurora Fire Department Station 11 2291 S. Joliet Street Aurora CO 80014	E-mail - vera.cps@teamco@gmail.com
April 29, 2014	Greeley Fire Department, 919 7th Street Greeley, CO 80631	E-mail - compfire@yahoo.com

CPS Training						
Today	April 2014	Print	Week	Month	Agenda	
Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1 9am CEU Course 9am Renewal Testir	2 9am CEU Course 9am Renewal Testir	3 9am CEU Course 9am Renewal Testir	4 9am CEU Course 9am Renewal Testir	5
6	7	8	9	10	11	12
13 9am CEU Course	14	15 9am CEU Course	16	17	18	19
20	21	22 FLSEC Conference	23	24	25	26
27 Lifesavers Conference	28	29 9am CEU Course 9am Renewal Testir	30	May 1	2	3

Advocate courses (full or half day awareness class) are a great way to introduce someone to Child Passenger Safety. If you have community members interested in becoming involved in CPS please direct them to one of these courses. In some cases people make better advocates than technicians, they may not have time for the full course or it is just too overwhelming, an Advocate Course can be the spark to sustainable CPS involvement. Please [click here](#) to request an Advocate course in your area.

Continuing Education (also known as refreshers, CEU class, or Update Refresher) courses will be offered on a frequent basis across the state. Please consider attending one of these courses instead of getting all your CEU's online. Instructors will be available for the required seat checks. Please [click here](#) to request a CE course in your area.

UMTRI (1 CEU),

No More CPS Guesswork: Identifying and Using the Right Technical Resources (1 CEU),

FMVSS 213: The truth about Child Restraint Standards (1 CEU),

Show trends in development of car seats (1 CEU) and Crash Dynamics: Why CPS Techs say what we say (2 CEUs).

After watching the videos, users must pass the test for each course with 80% in order to print a certificate of completion.

Courses are worth 1 or 2 CEUs. Users may log in and out to complete the modules.

[Click here for online courses](#)



Community Hours Available-

CPS Team Colorado has partnered with 9 Health Fair to provide CPS Technicians an opportunity to gain community education and outreach hours, which are required to re-certify. We need one or two volunteers for each event. Once you have signed up someone will contact you with the details of the event or the event contact person.

click to sign up: [9HealthFair](#) current needs:

Date	Location	Available Slot
3/29/2014 (Sat. 7:00AM - 12:00PM)	Greeley, Co	CPS Technician Volunteer (2)
4/6/2014 (Sun. 8:00AM - 12:00PM)	Limon, Co	CPS Technician Volunteer (2)
4/26/2014 (Sat. 7:00AM - 12:00PM)	Highlands Ranch, Co	CPS Technician Volunteer (2)
5/4/2014 (Sun. 7:00AM - 1:00PM)	Denver, Co	CPS Technician Volunteer (2)

To give real service you must add something which cannot be bought or measured with money, and that is sincerity and integrity.

Douglas Adams

NHTSA Announces New Mandatory Label to Help Owners Instantly Identify Recall Mailings

Recall labels and new [SaferCar App](#) for Android are latest NHTSA efforts to raise recall awareness.

WASHINGTON - The U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) today announced that starting February 18, all manufacturers must use a distinctive label on required mailings that notify owners of recalled vehicles or equipment. The requirement was introduced to help owners instantly distinguish important recall notices arriving in their mailboxes from other assorted correspondence and avoid mistakenly discarding critical safety notices.

"Recalls only work if consumers are aware of them," said U.S. Transportation Secretary Anthony Foxx. "

This new label will allow consumers to quickly recognize recall notices mailed to their homes so they can act quickly to get their vehicles, child restraints, tires, or other motor vehicle equipment fixed."

Continuing Education for hospital/healthcare based CPST's-addresses the unique needs and liability issues encountered by CPST's working in this environment. Please [click here](#) if you are interested in this course.

Certification Renewal courses are also available this year for CPS Technicians whose certification has expired within the past four years. One of the requirements of the course is that the technician has remained an active participant in CPS during the lapsed time.

This course can be taken consecutively with the CE course but IT IS NOT an update class. If you do not feel your skills are current please take the CE course prior to enrolling in this course. Please [click here](#) for more info.



Cone Corner



Photo courtesy of the Aurora Police Department's newly trained Child Passenger Safety Technicians. Here's to working to make kids safer - Buckle the child, not the gas can!

Pediatric Biomechanics

Engineers around the world are conducting cutting-edge pediatric biomechanics research, which is crucial to filling the gaps in knowledge to understand the likelihood that a child will be injured in a high energy event such as a crash. The study of biomechanics is defined as the application of engineering mechanics to biological and medical systems. The pediatric biomechanics team at CIRP applies this scientific discipline to develop novel approaches that deliver basic data on how children's bodies respond to and tolerate forces of a crash.

These pediatric biomechanics data are needed to improve specific body regions of the pediatric anthropometric test devices (ATDs), commonly referred to as crash test dummies, and to develop innovative restraint products to make vehicles safer for children in the future.



IMPORTANT SAFETY RECALL INFORMATION



Issued in Accordance
With Federal Law



Colorado Child Passenger Safety Awards

Its that time of year again- time to select the CPS Technician of the year and the CPS Technician/Instructor of the year. Please start pondering your potential nominees and look for the survey in your in-box !



Three Stages of a Collision, DDC4 6th Edition - National Safety Council.

Comparing FMVSS 213 Sled Test to the Full-scale Vehicle Crash Environment - Year 2



Hybrid III 6-year-old ATD in a forward-facing child restraint on the C/FMVSS bench in a finite element simulation

Keeping children safe in cars during crashes is an important area of injury prevention research. Child restraint systems (CRS) provide protection during crashes but are evaluated by a regulatory sled test that may differ from full-scale vehicle crash conditions in important ways.

The long-term goal of research is to influence CRS design and safety by developing a method to provide data-driven guidelines for the regulatory sled tests used worldwide by evaluating their ability to mimic actual vehicle crashes. Since it is vital to understand CRS performance in conditions representative of an actual crash, this project, conducted in two phases, aims to quantify the extent to which the FMVSS 213 sled test simulates a frontal vehicle crash test.

Areas of Pediatric Biomechanics Research:

- *Head and Spinal Kinematics of Pediatric Volunteers and Comparison to ATD Response.* Using a novel low-speed volunteer sled system, the kinematics of the head and spine of unrestrained child human volunteers were quantified in low-speed frontal crashes and compared to adults. Results show children demonstrate greater forward movement, head rotation, and spinal flexion than adults. Work is now being repeated for lateral and oblique impacts with a focus on understanding how the kinematics are related to the muscle activity that occurs during a crash event. In both studies, the human volunteer data is being compared to several age and size appropriate crash test dummies to quantify differences in dynamic response.
- *Determination of Pediatric Chest Stiffness Through Cardio Pulmonary Resuscitation (CPR).* Leveraging a novel device used on children receiving chest compressions for CPR, researchers are quantifying the chest's biomechanical response. A sensor that measures the force and amount of chest compression provides data for calculating chest stiffness. This information can then be compared to the chests of crash test dummies to ensure that they are child-like.
- *Clavicle Fractures Due to Belt Loading in Rear-seated Adolescent Occupants.* (see article below) Clavicle fractures due to shoulder belt contact in motor vehicle crash occupants are relatively common. This study investigates the pediatric clavicle's fracture tolerance through statistical, analytical, and radiological techniques using information from crash data to examine the sensitivity of the pediatric shoulder's response to belt loading in both oblique and frontal loading scenarios.

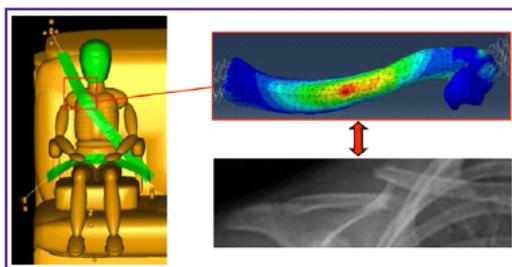
Clavicle Fractures Due to Belt Loading in Rear-Seated Adolescent Occupants

Little is known about the dynamic response of the adolescent occupant shoulder when seat belt restrained in a frontal or off-center crash. Pediatric clavicle fractures attributed to shoulder belt loading, while rare, provide a glimpse into how the belt-shoulder interaction changes with crash speed, the principal direction of force, restraint type, and belt anchor locations within the vehicle.

Investigating cases of clavicle fractures sustained by seat-belt-restrained pediatric occupants provides guidance for developing improved shoulder designs in child-sized anthropomorphic test devices (ATDs).

The goals of the study were to determine the crash characteristics typically associated with clavicle fractures, with consideration for age-related differences in injury patterns and restraint conditions, and to estimate the level of force required to cause injury to the adolescent clavicle through paired match case reconstructions with a Hybrid III ATD model.

Full Article Here - [Research in Action](#):



Pictured clockwise left to right: CIREN case MADYMO reconstruction with scaled 6-year-old ATD model seated in 3-point belt with backless booster; FE age-matched pediatric clavicle with stress distribution resulting from ATD shoulder belt contact loading in MADYMO reconstruction; X-ray of clavicle fracture from corresponding CIREN case

FMVSS 213 is the regulation that governs evaluation of child restraint performance. Child restraints are tested in a dynamic sled test while mounted on a bench seat that is intended to mimic the rear seat of a vehicle.

The first phase of the study, conducted in 2010-11, helped to quantify the differences between the vehicle and bench seats. Paired sled tests were conducted in which the same child restraint was tested on the FMVSS 213 bench seat, as well as a selection of actual vehicle seats.

Results from our first year of research show clear differences in the kinematics of both the ATD and the child restraint when exposed to identical crash pulses between the FMVSS 213 bench currently used for CRS regulatory testing and actual rear seats from a representative passenger car, SUV, and minivan, each mounted on an acceleration sled.

The second phase, conducted in 2011-2013, is discovering why these differences occur. We are currently determining which characteristics of the regulatory bench seat (seat cushion stiffness, seat belt stiffness, seat belt/LATCH/tether anchor location) led to these differences by utilizing a finite element model of the FMVSS 213 bench with a forward-facing CRS and an appropriately-sized ATD.

We are conducting a matrix of simulations that is evaluating how changes in these parameters influence ATD kinematics in order to identify the set of parameters that result in kinematics that are similar to those observed in the tests on the actual vehicle seats.

Principal Investigator: Matthew R. Maltrese, PhD, The Children's Hospital of Philadelphia
Co-investigators: Aditya Belwadi, PhD, Caitlin Locey, BS, and Kristy Arbogast, PhD, The Children's Hospital of Philadelphia;
Suzanne Tylko, MSME, Transport Canada.
IAB Mentors: Uwe Meissner, Technical Advisor; Richard Bandstra, Volkswagen Group of America Inc.; Eric Dahle, Evenflo Co. Inc.;
Keith Nagelski, Britax Child Safety Inc.; Schuyler St. Lawrence and Kazuo Higuchi, TK Holdings (Takata Corp.);
Rajiv Menon, Dorel Juvenile Group



[Forward this email](#)



This email was sent to cjewer@hotmail.com by child.safety.solutions@gmail.com | [Update Profile/Email Address](#) | Instant removal with [SafeUnsubscribe™](#) | [Privacy Policy](#).

Child Safety Solutions | CPS Team Colorado | Child Passenger Safety Program | 700 Kipling St. | Lakewood | CO | 80229

Inserted from <<https://bay179.mail.live.com/mail/17.1.7419.6000/Compose/RteFrameResources.aspx?ch=4573132873918381086&mkt=en-us>>