

Maryland EMS News

For All Emergency Medical Care Providers

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Hyperthermia Presents Danger to Children Left Unattended in Vehicles

With the heat of the Maryland summer upon us, it is important for healthcare providers (particularly first responders) and parents/caregivers to be aware of the danger of leaving children unattended in a vehicle, either intentionally or unintentionally. On warm days, temperatures inside vehicles rise to dangerous levels at a rapid rate, putting at risk the health and well-being of child passengers who remain inside the vehicle.

Experts in the field have documented over 428 child deaths in the last eleven years across the nation as

a result of vehicular hyperthermia. Unfortunately, this statistic may very well be an underestimate as there is currently no electronic tracking system available for reporting deaths attributable to vehicular hyperthermia. Data are gathered as experts in the field hear about child deaths due to hyperthermia caused by being left in a too-hot vehicle and by searching electronic media news sites for articles on the subject. In fact, one expert Jan Null, a certified consultant meteorologist with Goldengate Weather Services who teaches in the

Department of Geosciences at San Francisco State University, suggests that the figure of 428 deaths may be 10-20 percent higher or closer to 500 deaths. (Professor Null was the main speaker during the Maryland EMSC Child Passenger Safety statewide conference call on June 29.)

Professor Null further notes that children are particularly at risk for suffering hyperthermia because their immature thermoregulatory systems are not as capable of appropriately cooling the body as is the adult system. As a result, a child's core body temperature may rise three to five times as fast as an adult's when the child is in a hot environment. At 104 degrees Fahrenheit, the body is overwhelmed and the following symptoms may result: absence of perspiration, bizarre behavior, faintness, staggering, strong and rapid pulse, and possible delirium/coma. At 107 degrees Fahrenheit, cells that compose the body's organs begin to die, and death may occur.

To protect children from this very real danger, child passengers should not be left in vehicles for any length of time. Many deaths due to vehicular hyperthermia occur as the result of an accidental entrapment of a child in a vehicle. To prevent these tragedies, parents and caregivers should remain acutely aware of the whereabouts of their children and implement reminder systems to make sure that children are not unin-

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How Hot? How Fast?

Note: A study of heat stress from enclosed vehicles that evaluated the degree of temperature rise and the rate of rise in similar and lower ambient temperatures was done several years ago. The study was published by Catherine McLaren, MD, Jan Null, CCM, and James Quinn, MD in the July 2005 issue of "Pediatrics." The information below resulted from that study and is based on a slide that was part of Professor Null's presentation during the Maryland EMSC Child Passenger Safety statewide conference call on July 29, 2009.

- Vehicle interior temperature got much hotter and rose faster than expected.
- Average Elapsed Time vs. Temperature Rise
 - 10 minutes = 19 °F
 - 20 minutes = 29 °F
 - 1-2 hours = 45 - 50 °F
- "Cracking" windows has little effect (approximately 2-3 °)
- Vehicle interior (not exterior) color a factor
- Results of Study Published:
 - *Pediatrics* (July 2005)
 - *Weatherwise* (July/Aug 2005)
 - Online: <http://ggweather.com/heat>

Maryland Stroke Centers Recognized In National Magazine

Get With The Guidelines–StrokeSM (GWTG–Stroke) is an in-hospital program designed to improve acute stroke treatment and prevent future strokes and cardiovascular events. GWTG–Stroke focuses on quick diag-

New Primary Stroke Centers

Northwest Hospital in Randallstown (Region III) and Union Hospital in Elkton (Region IV) were recently designated as Primary Stroke Centers and are accepting stroke patients that meet the criteria for transport to a Primary Stroke Center as indicated in the “Maryland Medical Protocols for EMS Providers.” The number of designated Primary Stroke Centers statewide is now 34.

For further information, please contact the Office of State EMS Medical Director (410-706-0880) or the Office of Hospital Programs (410-706-3932).

nosis and treatment of stroke patients through Primary Stroke Centers. It also involves care team protocols once patients are admitted to ensure that they are treated and discharged appropriately. All MIEMSS-designated primary stroke centers in Maryland participate in GWTG–Stroke.

Each year GWTG–Stroke recognizes hospitals that consistently achieved certain performance measures. In the August 2009 issue of *US News and World Report*, several Maryland hospital stroke programs were recognized.

Gold is issued to hospitals that had 85 percent or higher adherence to all performance measures for two or more years. Among hospitals receiving gold were:

- Johns Hopkins Bayview Medical Center
- Johns Hopkins Hospital
- Sinai Hospital
- University of Maryland Medical Center

Silver is issued to hospitals that had 85 percent or higher adherence to all performance measures for 12 consecutive months. Among hospitals

receiving silver were:

- Greater Baltimore Medical Center*
- Howard County General Hospital*
- Maryland General Hospital
- Mercy Medical Center*
- Montgomery General Hospital
- St. Agnes Hospital

Bronze is issued to hospitals that had 85 percent or higher adherence to all performance measures for three months. (Bronze hospitals were not listed in the August issue.) Receiving bronze were:

- Baltimore-Washington Medical Center
- Greater Baltimore Medical Center*
- Howard County General Hospital*
- Mercy Medical Center*
- Suburban Hospital

Several hospitals in the above lists (indicated by asterisks) achieved both silver and bronze awards.

MIEMSS congratulates the 2009 GWTG–Stroke award winners!

Disciplinary Actions

The following final disciplinary actions were taken by the EMS Board on the dates indicated:

B-2009-405 (EMT-B)-July 14, 2009. For falsely representing EMT-P licensure, including submitting a forged NREMT-P card, in connection with applying for and taking continuing education courses, voluntary surrender of EMT-B certification.

B-2009-401 (EMT-B) (Applicant)-June 9, 2009. For pleading guilty to driving under the influence, probation through the period of Court-ordered probation or for one year whichever is greater and subject to random drug testing at his own expense.

B-2009-403 (EMT-B) (Applicant)-June 9, 2009. For pleading guilty to theft under \$500, probation through the period of Court-ordered probation.

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tentionally left in vehicles. Healthcare providers should educate parents about the risks of vehicular hyperthermia in order to increase awareness and prevention efforts. Through educational efforts, we can protect Maryland's children from the risk of vehicular hyperthermia.

To learn more about vehicular hyperthermia, please visit the Child Passenger Safety and Occupant Protection Healthcare Project website: <http://www.miemss.org/EMSCwww/CPSHome.htm>. On the main page, you may view and listen to the presentation on vehicular hyperthermia by Jan Null CCM (referred to earlier in this article), who was the main speaker during the Maryland EMSC Child Passenger Safety statewide conference call on June 29.

- ◆ Pamela Homiak, MPH, CPS-T
CPS & OP Health Care Project Coordinator
Email: phomiak@miemss.org

June Service Honors Firefighters, Emergency Workers Who Lost Lives in Line of Duty

On June 7, 2009, the Maryland Fire-Rescue Services Memorial Foundation held its annual memorial service remembering firefighters and emergency workers who lost their lives in the line of duty during the previous year. The ceremony was held in Annapolis at the Maryland Emergency Services Memorial Park on Rowe Boulevard and Calvert Street. Each June, on the first Sunday of the month, fire departments from throughout the state come to the site to pay tribute to those men and women and to

add onto the wall of honor the names of those who died that year.

The following names were added this year:

Helicopter Pilot-Retired Corporal Stephen H. Bunker, Maryland State Police, September 28, 2008.

TFC Mickey Charles Lippy, Maryland State Police, September 28, 2008.

EMT-Sgt. Tonya Michelle Mallard, Waldorf Volunteer Fire Department, September 28, 2008.

Paramedic-Firefighter Brian D. Neville, Baltimore County Fire Department, October 16, 2008.

Paramedic Thomas "TR" Rice, Baltimore County Fire Department, January 21, 2009.

Fire Chief Charles (Buck) Clough, Sudlersville Volunteer Fire Company, April 15, 2009.



*Corporal
Stephen H. Bunker*



*TFC
Mickey Charles
Lippy*



*EMT-Sgt.
Tonya Michelle Mallard*



*Paramedic-Firefighter
Brian D. Neville*



*Paramedic
Thomas "TR" Rice*



*Fire Chief
Charles (Buck) Clough*



At the site of the Maryland State Fire-Rescue Memorial in Annapolis, firefighters and emergency personnel gathered to pay tribute to six Maryland emergency services personnel who lost their lives in the line of duty.

MIEMSS Participates in July Prevention Programs

As part of its injury prevention efforts, MIEMSS and its public safety partners participated in two programs in July. The first focused on not drinking and driving, while the second stressed the costs of aggressive driving.

July 4, 2009 marked the implementation of the fourth annual Tippy? Taxi! program. From July 3

(from 8 PM to 4 AM) to July 4 (4 PM to 4 AM), the program provided a free taxi ride to those at least 21 years old, who had been drinking at a restaurant or bar in Baltimore City. The campaign was announced by Baltimore Mayor Sheila Dixon, AAA Mid-Atlantic, the Maryland Department of Transportation's State Highway Administration, and Yellow

Cab. The joint project, which began in 2006, is designed to combat drunk driving, especially on holidays that are associated with excessive alcohol-consumption.

On July 7, officials that are part of the Smooth Operator Program, including prevention, EMS, trauma, and law enforcement personnel, met at the R Adams Cowley Shock Trauma Center. There Richard Alcorta, MD, State EMS Medical Director at MIEMSS, and Thomas Scalea, MD, the physician-in-chief and trauma director at the R Adams Cowley Shock Trauma Center, were among the speakers discussing the perils of aggressive driving. A large number of people injured in crashes involving aggressive driving end up at the Shock Trauma Center. The Smooth Operator Campaign focuses on drivers who speed.

In 1997, Smooth Operator was founded with 18 law enforcement

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Baltimore Mayor Sheila Dixon (third from left) joins safety officials in kicking off the Tippy? Taxi! Campaign to try to reduce impaired driving during the July 4th holiday.



Maryland law enforcement, EMS, prevention, and Shock Trauma personnel gathered on the helipad of the R Adams Cowley Shock Trauma Center to educate the public about the Smooth Operator program.



Regina Averella, Public and Government Affairs Manager for AAA Mid-Atlantic, stressed: "As we celebrate our nation's independence, we are urging everyone to designate a sober driver before their parties begin, and if you are celebrating in Baltimore City, by all means take advantage of the Tippy? Taxi! Program."

MIEMSS Participates in July Prevention Programs

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agencies coordinating efforts to get tough on aggressive drivers in the greater Washington, DC area. Officials felt more was needed to raise awareness and change behavior. A coalition was formed of elected officials, government agencies, private sector organizations, and law enforcement agencies to develop a comprehensive program for reducing aggressive driving. As a result, in 2000, a public awareness and education component was added to the program, which aimed to inform people about aggressive driving and encourage them to be more aware of their potential to drive aggressively, particularly in congested traffic or when they are stressed.

David Balthis



David Balthis, MAS, is the new Chief of Information Technology and Communications at MIEMSS. As a recently retired Deputy Chief from the Howard County Fire Department, he brings many years of experience in IT and communications to MIEMSS. He has been a member of the Statewide Emergency Medical Services Advisory Council (SEMSAC) since 2005, representing the Emergency Numbers Board and was recently elected as the vice-chair of SEMSAC.



Dr. Richard Alcorta, State EMS Medical Director at MIEMSS, stressed the perils of aggressive driving at a news conference regarding the Smooth Operator Program.

Zoll AED Plus Defibrillator Recalled

Zoll Medical Corporation is recalling AED Plus Defibrillators that were manufactured between May 2004 and February 2009. Some of the batteries in these devices may not work properly, and the original self-test software cannot adequately detect defective batteries. These devices could fail to deliver a shock to a patient during sudden cardiac arrest.

The affected devices have serial numbers whose last six digits are below 200000. If you have a device with such a serial number, you should upgrade the software to version 5.32. The company says the new software will allow the defibrillators to monitor the performance of the batteries through periodic self-testing. If the software detects defective batteries, the device will prompt users to install fresh batteries. The new software can be ordered or downloaded from the company.

Additional Information:

FDA MedWatch Safety Alert. Zoll AED Plus Defibrillator. April 9, 2009.
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm134068.htm>

Zoll Medical Corporation. Zoll AED Plus Device Corrective Action.
<http://www.ZOLLAEDPlusbatteryhelp.com>

Sponsored by
Maryland Regional NDLS Coalition
*Johns Hopkins CEPAR, Maryland Fire and Rescue Institute (MFRI),
Maryland Institute for Emergency Medical Services Systems (MIEMSS),
The RA Cowley Shock Trauma Center and the University of Maryland at Baltimore County (UMBC)*

National Disaster Life Support Program **BASIC DISASTER LIFE SUPPORT**

(One-day program)
(BDLS is a pre-requisite to attending the future two-day hands-on ADLS course)

Register on line NOW at www.mfri.org/ndls as space is limited.
Upon completion of this application, a holding confirmation will be emailed to you.
Lunch will not be provided.

There is a \$10 registration fee.
If you wish physician or PA CME, there is an additional \$10 fee.
Books will be provided to attendees upon arrival for the course.
There are no other fees or costs.

Course is open to all interested parties

COURSE LOCATION: James N. Robey Public Safety Training Center
2200 Scott Wheeler Dr
Marriottsville, MD 21104
Directions: <http://www.co.ho.md.us/police/docs/AlphaCenterDirections2.pdf>

BDLS COURSE DATE: Monday September 28, 2009
Starts promptly at 8:00 am to 5 pm

BDLS APPLICATION (Print)

Name (Last, First): _____ License /Certification Number: _____

Current Employer /Department affiliation _____ Position/Title: _____

Phone (Home): _____ Phone (Work): _____

Mailing Address: _____ City: _____ State: _____ Zip Code: _____

Fax Number: _____ Email Address (required): _____

Licensure type: (Mark with X) Physician, Nurse, EMS, Other Health Care Professional

Deadline for BDLS (one day) program: September 23, 2009

I certify that the information recorded on this application is correct.

Space is limited so early registration is essential to assure participation and
you will receive confirmation by email which you will need to bring on the day of the program.

EMS Calendar

August 28, 2009

***Peninsula Regional Medical Center
Trauma Conference***

Clarion Hotel & Conference Center
Information: Lynn Foster at
1-410-546-6400

September 22, 2009

***1959-2009 Mid-Atlantic Life
Safety Conference: Progress
through the Years***

Johns Hopkins Applied Physics Lab,
Kossiakoff Conference Center
Laurel, MD
Information: 301-226-9962 or
www.mfri.org

September 28, 2009

***National Disaster Life Support
Program: Basic Disaster Life
Support***

James N. Robey Public Safety
Training Center
Marriottsville, MD 21104
Sponsored by Maryland Regional
NDLS Coalition
Registration form on page 6 or
online at www.mfri.org/ndls

October 7, 2009

***Washington County Hospital
Trauma Seminar***

The Merle S. Elliott Continuing
Education & Conference Center
Hagerstown Community College
Information: 301-790-2800, ext.236

October 7-10, 2009

National ENA Annual Conference

Baltimore Convention Center
Information: www.ena.org

October 14-17, 2009

Safe Kids Worldwide Conference

Baltimore, MD
Information: www.safekids.org

October 16-18, 2009

Pyramid EMS Conference

Solomon's Island
Information: MIEMSS Region V
Office 301-474-1485

January 28-31, 2010

Winterfest 2010

Tilghman Island, MD

MIEMSS, Maryland EMS News
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Governor Martin O'Malley
Lt. Governor Anthony Brown

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