OCCUPATIONAL FATALITY REPORT

Ambulance Safety

Please Post

Bureau of Labor Standards
Research and Statistics Unit
Maine Department of Labor
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SafetyWorks!, a program of the Maine Department of Labor, provides free training and consultations on workplace safety and health issues such as the one described inside. For more information, call toll-**free 1-877-SAFE-345.**

Occupational Safety and Health Surveillance
The Research and Statistics Unit generates work-related injury and illness statistics. It provides annual counts, case characteristics and incidence rates of fatal and non-fatal injury and illness. The annual counts and case characteristics data are generated from the Employer's First Report of Occupational Injury or Disease submitted to the Maine Workers' Compensation Board (WCB) while incidence rates and fatal cases are derived from the Federal Bureau of Labor Statistics Survey of Occupational Injury and Illness (SOII) and the Census of Fatal Occupational Injuries (CFOI) respectively.

The Maine Department of Labor provides equal opportunity in employment and programs. Auxiliary aids and services are available to individuals with disabilities upon request.

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OFR 02/07

Maine Emergency Medical Technician (EMT) killed in a collision

Incident

An EMT was killed when a pick-up truck collided with the ambulance in which he was riding. Thecause of death according to the medical examiner report was head and neck trauma.

The ambulance siren and lights were on at the time of the collision. The EMT was attending to a patient in the rear of the ambulance when the collision occurred. The EMT was apparently thrown to the area near the mounted chair and the head-locking portion of the stretcher in the back of the ambulance.

Safety & Health Regulations and Standards

Maine primary seat belt law requires all persons 4 years of age or older to be secured in safety belts. The law applies to all passengers and drivers of motor vehicles manufactured with safety belts. However, there are no mandatory safety belt standards for a practicing provider working in the back of an ambulance.

Since the back of an ambulance is considered a workplace, Section 5(a)(1) of the OSH Act, often referred to as the General Duty Clause, would apply. The General Duty Clause requires the employer to "furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

Fatality Data

Since 2003, 45 emergency medical technicians across the nation have been killed on the job. Of these 45 cases, 10 of these fatalities involved collisions.

Table 1: EMT Fatalities (National CFOI)

Year/Occupation	2003	2004	2005	2006
Emergency medical technicians	7	19	10	9

Data Source: U.S. Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI)

Nationally, an annual average of 4,332 Emergency medical technicians (EMT) have been injured on the job, losing at least one day from work beyond the day of their injuries.

Table 2: Nonfatal Injuries Involving Days Away From Work (National SOII)

Year/Occupation	2003	2004	2005	2006
Emergency medical technicians	4,040	5,170	3,050	5,070

Data Source: Federal Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses (SOII)

In Maine, within a ten-year period (1996-2005), 1,233 EMTs were injured on the job and had filed First Reports of Injuries with the Maine Worker's Compensation Board.Of these 1,233 cases, 15 cases involved some type of collision.

In addition, the Maine State Police recorded an annual average of 41 ambulance crashes/collisions from 2003 to 2007.

Table 3: Maine Ambulance Crashes: 2003-2007

Ambulance Crashes by Year

2003	2004	2005	2006	2007
58	41	42	31	33

Source: Maine State Police

Ambulance Safety Resources

The National Institute for Occupational Safety and Health **(NIOSH)** conducted two investigations on fatal ambulance crashes and concluded that to help prevent similar occurrences, employers should:

- Ensure that emergency service workers use the patient compartment vehicle occupant restraints whenever possible
- Ensure that patient cots are equipped with upper body safety restraints for use during emergency and non-emergency transports
- Ensure that drivers and front-seat passengers of emergency service vehicles use the vehicle occupant restraints that are provided
- Ambulance manufacturers and emergency services should evaluate and develop occupant protection systems designed to increase the crash survivability of EMS workers in ambulance patient compartments while still providing the necessary mobility to provide patient care during transport.

Sources:

www.cdc.gov/niosh/face/In-house/full200112.html

www.cdc.gov/niosh/face/In-house/full200111.html

Objective Safety, an organization dedicated to EMS safety awareness and enhancing injury prevention and control has identified the following potential interventions that can enhance the safety and health of EMS personnel.

http://www.objectivesafety.net/index.html

- Safety Policy
- Safety Performance Standards
- Vehicle crashworthiness
- Vehicle interior ergonomics
- Personal Protective Equipment design
- Driver training and simulation
- Safety and risk awareness modification
- Risk behavior modification
- Intelligent Transport Systems

For more information on these interventions, contact Nadine Levick, MD., MPH at nlevick@objectivesafety.net