

NIOSH Report Examines Fatal Heart Attacks

Heart attacks continue to be the most common cause of Line-of-Duty Deaths (LODDs) among members of the Emergency Services Sector (ESS) each year. The Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) examined a report released this week by the National Institute for Occupational Safety and Health (NIOSH) that concludes measures by responders, and responder organizations and agencies can preserve personnel, the most critical of ESS infrastructures.

Multiple physical, physiological, and environmental stressors unique to emergency operations increase responders' odds of suffering sudden cardiac death. The new report, "NIOSH Alert: "Preventing Fire Fighter Fatalities Due to Heart Attacks and Other Sudden Cardiovascular Events," incorporates findings from 131 NIOSH investigations into sudden cardiac-related deaths in firefighters, an extensive review of scientific, professional, and medical literature, and reviews from 12 outside experts in the fire service and the occupational health communities.

The report states that ESS members "with medical conditions presenting a risk for sudden incapacitation pose a hazard to themselves, their co-workers, and civilians." However, medical evaluations can diagnose these conditions. While "the fire service recommends medical evaluations and participation in comprehensive fitness and wellness programs to reduce the number of on-duty cardiovascular disease (CVD) fatalities," findings from the NIOSH Fire Fighter Fatality Investigation and Prevention Program document an urgent need for ESS departments to implement member medical evaluation programs, and to follow published guidelines regarding medical return-to-work clearance.

A 2006 U.S. Fire Administration survey indicated that 76% of fire departments lack programs to maintain basic fitness and health. It found that "obvious barriers to implementing these programs are costs, job security issues, and (for volunteer fire departments) maintaining a critical number of members," and urged additional research to identify factors that can lower these barriers.

The NIOSH Alert offers numerous detailed recommendations for ESS departments to reduce members' risk of heart attacks and other sudden coronary events. Some of the recommended measures include:

- Medical evaluation programs;
- Comprehensive wellness and fitness programs;
- Proper use of personal protective equipment; and
- Proper management of the fire scene to reduce hazardous exposures, including heat stress.

The alert is available online at <http://www.cdc.gov/niosh/docs/2007-133>. NIOSH is sending copies to fire service and allied organizations and to 35,000 fire departments across the country. More information on the firefighter fatality investigation and prevention program is available at <http://www.cdc.gov/niosh/fire>, or by telephoning 1-800-356-4674.



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