

Barodontalgia Among Sri Lankan Air Force, Air Crew
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Study/Objective: The purpose of this study was to assess the current in-flight incidence of barodontalgia, and to identify the associated dental pathologies and etiologic factors.

Background: Barodontalgia, a dental pain evoked by a change in barometric pressure in an otherwise asymptomatic tooth, may be severe enough to cause in-flight vertigo, incapacitation, and premature cessation of flights and altitude-chamber simulations.

Methods: A total of 40 questionnaires were e-mailed to fighter, helicopter, and transport aircrews of the Sri Lankan Air Force. They were asked to report whether they had ever suffered from a toothache during flight. If a positive answer was reported, the subject was interviewed and his dental file was reviewed to obtain details about the incidence.

Results: There were 31 (77.5%) aircrew members who responded. Out of those, 4 (12.9%) reported at least 1 case of barodontalgia; their mean age \pm SD was 29.7 \pm 7.3 yr and the occurrence by aircraft platform were 6.45% of fighter, 3.2% of helicopter, and 3.2% of transport respondents. Many of the cases originated from vital and/or inflamed pulp (40.7%), whereas the other cases were due to pulp necrosis or periapical periodontitis (18.5%) and barosinusitis (18.5%). None of the patients reported premature mission termination due to dental pain.

Conclusion: Even with modern dental care, military aircrews from all the flight platforms may occasionally experience barodontalgia. Flight surgeons and dentists should be aware of this phenomenon and use preventive measures to minimize its incidence and severity.

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Occupational Health Issues among Non-traditional Response Workers following Hurricane Sandy

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Study/Objective: Characterize the specific distribution and determinants of illness and injury among laypersons and volunteers assisting in the remediation of homes flooded and damaged during Superstorm Sandy.

Background: In New York City, mold damage and other flood-related contamination has been a significant concern among the public, homeowners, and public health agencies following Hurricane Sandy. Following the storm, lay persons who had no previous experience remediating homes with damage from environmental hazards began ad hoc reparations to residential buildings and were exposed to mold, asbestos, and other environmental contaminants.

Methods: A field survey of 544 homeowners and volunteers who performed mold remediation activities and participated in NYC Department of Health worker safety training programs was conducted to determine possible

exposures and health effects. A non-trained control group was also surveyed and physical and mental health outcomes were compared.

Results: Although symptom prevalence was moderate, rates of diagnosed illness in the cohort were low. The illness that affected the highest number of respondents was depression (6.5%). There were few significant differences in rates of illness between the trained and untrained groups; however, safe work practices were slightly better in the trained group.

Conclusion: The findings of this research are consistent with previous studies following Hurricanes Katrina and Rita. Effective just-in-time worker safety training programs for non-traditional responders to disasters, including “do-it-yourself” homeowners and volunteers, may reduce the rates of occupational illness and injury in this population. Health departments should create materials for occupational health and safety just-in-time training programs prior to disasters that involve widespread exposure to environmental stressors.

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Impact of Health Department Worker Safety Training on Health Outcomes after Hurricane Sandy in New York City

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Study/Objective: Characterize the specific distribution and determinants of illness and injury among laypersons and volunteers assisting in the remediation of homes flooded and damaged during Superstorm Sandy. Evaluate the effectiveness of worker safety training sponsored by the Department of Health to lay persons and volunteers in reducing the incidence of illness and injury due to exposure to environmental hazards.

Background: In New York City following Hurricane Sandy, lay persons and volunteers began ad hoc preparations to residential buildings and were exposed to mold, asbestos, and other contaminants. The New York City Department of Health and Mental Hygiene saw the need for worker safety training in this population. It is essential to the practice of public health to understand how a health-department-sponsored worker safety training program could serve as a prevention strategy for occupational illness following a disaster.

Methods: A field survey of 544 homeowners and volunteers who performed mold remediation activities, and participated in NYC Department of Health worker safety training programs, was conducted to determine possible exposures and health effects. A non-trained control group was also surveyed, and physical and mental health outcomes were compared to evaluate the effectiveness of training as a public health intervention.

Results: Although symptom prevalence was moderate, rates of diagnosed illness in the cohort were low. The illness that affected the highest number of respondents was depression (6.5%). There were few significant differences in rates of illness between the trained and untrained groups; however, safe work practices were slightly better in the trained group.