addition, 3.3% and 2.7% of the cases respectively requested a prohibition of field trips and intense physical effort. Evictions were granted in 42% of the soldiers with an average duration of eviction of 2 months [1–14 months]. In 2.7% of the cases, a reform file was requested to decide on the fitness of these soldiers for armed service.

Conclusion A better understanding of the psychiatric causes, which affected fitness for work in the military by sometimes causing unfitness for military service, would allow the development of standardized procedures for psychological and psychiatric evaluation of young conscripts.

Noise

P-270 NOISE EXPOSURE AS A FACTOR IN THE INCREASE OF BLOOD PRESSURE AND HEART RATE OF WORKERS IN A STEEL MANUFACTURING INDUSTRY

S Ranjith, S Preeti William, PK Latha, S Rekha, Vidhya Venugopal. Vel Tech Rangarajan Dr. Sagunthala Rani RD Institute of Science and Technology, India

Introduction According to the WHO, excessive noise is a threat to occupational health with both auditory and non-auditory health consequences. The purpose of this study was to examine the impact of noise exposure on blood pressure and heart rate in steel industry personnel.

Materials & Methods In this cross-sectional study, 80 industrial workers who were exposed to occupational noise were recruited after Institutional Ethical Clearance and management approval. A structured questionnaire evaluated the perceptions of non-auditory impacts among workers (tiredness, headache, dizziness, insomnia, and fainting). The participants’ noise exposure was recorded using an American National Standards Institute (ANSI) sound level metre, and their physiological responses, including Blood Pressure (BP) and Heart Rate (HR), were evaluated both before and after exposure.

Results The noise levels in the industry ranged from 80.2 to 96.9 dBA, with an average value of 88.5 dBA; approximately 67% of workers were exposed to noise levels exceeding the OSHA standard’s Permissible Exposure Limit (PEL). The mean systolic and diastolic blood pressures were 135.33±17.3 and 90.13±11.8 mmHg, respectively, and the pre- and post-treatment heart rates were 82.83±9.24 and 92.43±13.04 bpm. The workers’ perception showed no significant correlation between noise exposure and years of work in noisy areas, age, or the indicators chosen like tiredness, dizziness, headache, insomnia, and fainting. However, a strong positive correlation was seen between BP (p=0.001) and HR (p=0.001) and noise exposures above the PEL.

Conclusion The mismatch between workers’ perceptions and the correlations between noise exposures and non-auditory consequences demonstrates that workers’ comprehension and risk perception of excessive occupational noise exposures are quite low. Evidence suggests high noise exposure induces unfavourable physiological responses in humans. Despite regulations, there is a lack of enforcement and compliance. Protection of workers in high-noise industries requires engineering interventions, effective hearing conservation programmes, and stringent policies.

Solvents

P-272 HEALTH IMPACTS OF VOLATILE ORGANIC COMPOUNDS EXPOSURE AMONG PAINTERS AT CONSTRUCTION SITE

1Lavanya Sekhar, 1Anin GS Jenolin, 2Santharam, 3Vidhya Venugopal, 1Priscilla Johnson, 1Department of Physiology, Sri Ramachandra Medical College and Research Institute, Sri Ramachandra Institute of Higher Education (SRIMER) (DU), Chennai, Tamil Nadu, India; 2Department of Neurosurgery, Sri Balaji Medical College and Hospital, Chennai, Tamil Nadu, India; 3Department of Environmental Health Engineering, Faculty of Public Health, SRIMER (DU) Chennai, Tamil Nadu, India

Introduction Painters at construction worksite are exposed to domestic paints and thinners which contain organic solvents which are a substantial source of volatile organic compounds (VOCs). Several studies have shown the respiratory impacts of VOCs but their impacts on other systems are often too subtle. Hence, we sought to study their health impacts.

Methodology This analytical cross-sectional study was conducted among 75 painters (age 25-55 years) with minimum 5 years of experience. Their VOC exposure status was assessed using personal VOC monitor and were found to have higher traces of toluene levels. Exposure index questionnaire was used and their mean cumulative toluene exposure index was calculated. Outcome parameters were assessed using health questionnaire. The participants were categorized into two groups based (≤10 years, >10 years) on their years of paint exposure.

Results The mean cumulative toluene exposure levels among high exposure group ($16.65 ±10^3$ ppm) were significantly higher compared to the low exposure ($214.01±10^3$ ppm) group. The odds of neurological and (1.54,95% CI = 0.6,3.8), gastrointestinal symptoms (1.48,95% CI = 0.5,4.2), dermatological manifestations (1.38,95% CI = 0.4,3.9), were higher among high exposure group, after adjusting the confounding variables.

Conclusion Painters at construction site were found to have increased risk of health effects and future longitudinal studies are required to assess the temporality.

Irritants and allergens

P-276 ALLERGIC CONTACT DERMATITIS TO METALS AMONG CONSTRUCTION WORKERS

Asna Koubbaa, Emna Baraketi, Ijen Himen, Saloua Ismail, Nihel Khouja, Emna Bedhifa, Aida Benzarti, Abdelmajid Ben Jemaa. Department of Occupational Medicine and Occupational Diseases of the University Teaching Hospital La Rabta in Tunis, Tunisia

Introduction Allergic contact dermatitis (ACD) is one of the most common occupational diseases among construction workers due to exposure to ubiquitous allergens, particularly metals, responsible for chronic and disabling forms. Our aims were to study the socio-occupational, clinical and allergological characteristics of ACD to metals in construction workers and to evaluate its impact on their work ability.

Material and Methods Descriptive and retrospective study including construction workers consulting an occupational medicine department in Tunis from 1999 to 2022, presenting...