

A Review of Obesity and Body Mass Index and Nonfatal Traumatic Occupational Injuries

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Abstract: Obesity is a devastating public health concern, with increasing prevalence that has more than doubled over the last decades. According to the CDC, more than one-third of adults in the United States are classified as obese and two-thirds of US adults are classified as either overweight or obese defined by body mass index (BMI: kg/m²). Obesity has been associated with the increased risk of acquiring adverse health conditions and often overlooked is the influence that obesity has on physical limitations, fatigue and the risk for occupational injuries. Occupational injuries such as back- and fall-related injuries occur frequently in the workplace and are costly in terms of workers' compensation claims (WC) and lost productivity. The goal of this review study was to synthesize the literature on the obesity and Body Mass Index (BMI) and nonfatal traumatic occupational injuries. Scientific refereed publications were searched for studies on BMI and overweight/obesity and for the risk of nonfatal traumatic occupational injuries. The preliminary literature search was conducted using electronic databases and the systematic search strategy yielded more than three-hundred articles. Further examinations were performed to the studies only that investigated Body Mass Index and obesity as an associated risk factor for nonfatal traumatic occupational injury. The literature indicated that there appears to be a strong association between obesity/BMI and risk for nonfatal traumatic occupational injuries such as fall-related injuries, upper/lower extremity and back injuries, and sprains, strains & dislocations. The studies also presented that the increased costs associated with occupational injuries in terms of the workers' compensation claims and obesity. Obese employees lost almost three times as many workdays compared with their normal weight counterparts due to musculoskeletal system disorders. The findings support the need for employer dedicated preventative interventions with an emphasis on weight reduction, lifestyle changes, physical fitness, and training/education on ergonomics and workplace safety.

Keywords: Obesity, Workers' Compensation, Occupational Injury, BMI