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Upper-Extremity Injuries are the 2nd Most Common Workplace Injuries from 1992 to 2018

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Title:

Upper-Extremity Injuries are the 2nd Most Common Workplace Injuries from 1992 to 2018

Authors:

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Abstract:

Musculoskeletal injuries occur frequently in the workplace, yet it is unclear whether upper-extremity, lower-extremity, or trunk injuries are the most prevalent. We hypothesize that: (1) trunk injuries are the most common in the overall workplace, and (2) upper-extremity injuries are more common in labor-based industries than non-labor industries. Workplace related injury data from 1992 to 2018 was collected from the Bureau of Labor Statistics "Workplace Injuries & Illnesses" database. Occurrence of trunk, upper-extremity, and lower-extremity injuries in major industries (agriculture, construction, manufacturing, and healthcare) were aggregated during this time period and compared. Overall workplace related injury occurrence in major industries from 1992 to 2018 for the following body regions were tabulated as follows: upper-extremity (4,471,340 cases), lower-extremity (3,296,547 cases), and trunk (5,889,940 cases) ($p < .05$). Upper-extremity injury incidence was observed to be significantly higher than lower-extremity injury incidence in the manufacturing industry ($p < .001$) and significantly lower than trunk injury incidence in the healthcare industry ($p < .001$). However, differences between upper-extremity injury incidence and both lower-extremity and trunk injury incidence were not significant for the other industries. When comparing the occurrence of upper-extremity injuries across industries from 1992 to 2018, significant differences were determined between all industries except for healthcare ($p < .001$). When identifying changes in injury occurrence in each respective industry across this time span, manufacturing was shown to have the largest decrease ($x = -5,432$, $r = -.91$) followed by construction ($x = -966$, $r = -.87$) and then agriculture ($x = -270$, $r = -.79$). Weak correlation was observed for healthcare ($x = 118$, $r = .15$).