










Safety Connection

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SAFETY RESEARCH

-  **Evaluating Anchorages Forces of Mast Climbing Work Platforms.** A new [research report from National Institute for Occupational Safety and Health](#) (NIOSH), supported by a grant from the Job-Site Safety Institute, looked at forces applied to MCWP anchorages, which are likely among the most critical components for the scaffold climbing system. The study found that the amount of the load on the platform, the position of the load on the platform, and the platform's vertical position on the mast may all affect the reaction forces on the anchorages. Failure of anchorages can affect overall structural stability, potentially increasing the risk of the mast collapsing.
-  **Construction Worker Overdose Deaths Plummet, Suicides Decline.** Recent [data highlighted in REASON](#) (Resources and Effective programs Addressing Suicides and Opioids Now) shows that drug-related overdose deaths among construction workers declined 28.8% and deaths by suicide dropped 1.7% from 2023 to 2024. It suggests that series of actions taken by the construction industry contributed to fewer lives lost, including education on risks of opioids and fewer opioids prescribed, availability of naloxone medication designed to rapidly reverse an opioid overdose, and decreased stigma around substance use and mental health disorders.
-  **Machine Learning Applications Can Predict Safety Incidents In Construction.** A [new study](#) used machine learning to predict both the type and severity of construction site accidents. Researchers from Saudi Arabia analyzed 203 real incidents using factors like weather, workforce size, and safety practices. A key finding is that advanced models—especially XGBoost—could predict accident severity with high accuracy (up to ~89%). It also found that including information about the type of accident improved how severity could be predicted. Overall, the study shows that machine learning can help construction companies prevent accidents by identifying high-risk situations in advance.
-  **Is Work-Related Hearing Loss Associated With Dementia?** A new [study published in the American Journal of Industrial Medicine](#) examined the association between hearing loss and dementia in a population at high risk for hearing loss from occupational noise exposures. Key findings include construction workers with hearing loss were more likely to have dementia, and the strength of this association increased with greater severity of hearing loss and showed the importance of preventing hearing loss through the use of hearing protection at work and at home, especially when in noisy areas or operating equipment that produces excessive noise exposure.
-  **California Heat Standard Reduced Work Injuries.** A [study by the Workers' Compensation Research Institute](#) (WCRI) offers evidence of how California's 2005 heat standard impacted the frequency of injuries in occupations with substantial exposure to outdoor heat, like construction. They study showed California's heat standard—which requires employers to provide water, shade, rest breaks, acclimatization plans, and emergency response protocols during excessive heat—resulted in 15-17% decreases in work-related injuries for construction workers.

CONSTRUCTION SAFETY TRENDS

-  **US Bureau of Labor Statistics: Construction deaths, fatality rate declined in 2024.** According to the Bureau of Labor Statistics Census of Fatal Occupational [release](#), in 2024, 1,034 construction workers died on the job, with 41 fewer worker fatalities than in 2023. Falls, slips, and trips caused 389 jobsite fatalities accounting for approximately 38% of all construction-related workplace deaths, while transportation incidents—work-related injuries or fatalities involving employees operating or working near vehicles—resulted in 244 deaths in 2024, representing roughly 24% of all jobsite fatalities. Construction recorded a fatality rate of 9.2 deaths per 100,000 full-time equivalent workers in 2024, down 0.4 from the previous year, ranking fourth highest among all industries.
-  **Transportation Injuries in the Construction Industry.** CPWR - Center for Construction Research and Training [Data Bulletin](#) examined transportation injuries, including injuries due to transportation incidents and fatal motor vehicle crashes in construction work zones. Key findings show: the number and rate and of fatal transportation injuries among construction workers declined from 2012 to 2023; Specialty Trade Contractors in construction—such as roofers, plumbers, electricians—had the highest number of nonfatal transportation injuries.; and between 2012 to 2023, there was a 31.1% increase in fatal crashes in construction work zones (i.e., area of the road in which road repair work is being conducted, such as building a bridge or adding lanes).