

Workplace accidents are most likely to occur in moderately dangerous settings

May 10 2023



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Although some people might expect very dangerous jobs to be associated with the highest incidence of workplace accidents, a new study finds that accidents are actually most likely to occur within

moderately dangerous work environments.

"In highly dangerous environments, individuals engage in a high degree of [safety](#) behaviours, which offsets the chance of an accident," said Dr. James Beck, lead author and a professor of psychology. "On the other hand, in moderately dangerous environments, people usually engage in some safety behaviours, yet most people do not engage in enough safety behaviours to avoid [accidents](#)."

Safety behaviours are often viewed as cumbersome and inefficient, which can mean workers do not practice these behaviours consistently.

According to Beck, under moderately dangerous conditions, people tend to underestimate the degree of safety behaviour that is needed. As a result, they tend to respond to danger in a more-or-less proportional manner so that moderately dangerous situations are met with a moderate degree of safety behaviour. However, the researchers found this response insufficient as "minimizing accidents requires a very sharp increase in safety behaviours, even in response to a small increase in danger."

The authors conducted four studies. In two of the studies, historical workplace injury data were used to demonstrate that moderately dangerous environments were associated with the most accidents. The remaining two studies were experiments that had individuals complete work simulations in which they knew the level of danger and how to engage with it safely.

The experiments demonstrated that individuals under-allocate time and effort to work safely within moderately dangerous environments despite knowing about the dangers.

"It appears that the level of safety behaviours needed to offset moderate

dangers is simply not very obvious or intuitive," Beck said.

The findings provide insights into how [workplace](#) safety training programs may be designed to emphasize moderately hazardous work environments to help [individuals](#) avoid accidents.

The findings are published in the journal *Personnel Psychology*.

More information: James W. Beck et al, Moderation in all things, except when it comes to workplace safety: Accidents are most likely to occur under moderately hazardous work conditions, *Personnel Psychology* (2023). [DOI: 10.1111/peps.12586](https://doi.org/10.1111/peps.12586)

Provided by University of Waterloo

Citation: Workplace accidents are most likely to occur in moderately dangerous settings (2023, May 10) retrieved 22 July 2024 from <https://medicalxpress.com/news/2023-05-workplace-accidents-moderately-dangerous.html>

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