

# Current training programs may not prepare firefighters to combat stress

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Current training programs may not effectively prepare firefighters for the range of scenarios they are likely to encounter, according to human factors/ergonomics researchers Michael R. Baumann, Carol L. Gohm, and Bryan L. Bonner. In their October 2011 *Human Factors* article, "Phased Training for High-Reliability Occupations: Live-Fire Exercises for Civilian Firefighters," the authors assess the value of current scenario-based training programs.

Firefighters must make complex decisions and predictions and must perform extreme tasks at a moment's notice. Failure to keep a level head in the face of a dangerous situation may result in [disastrous consequences](#). An effective training program that prepares firefighters to handle unanticipated changes may be the key to maintaining low [stress levels](#) and preventing stress-related [health issues](#).

The most common form of training exposes firefighters to one or a very small set of live-fire scenarios designed to reduce [stress](#) and encourage calm decision-making skills. But repeated exposure to the same scenario may fail to adequately prepare firefighters for changing situations, as lessons learned in that scenario may not transfer to a different scenario.

In the Baumann et al. study, firefighter trainees performed a variety of drills, first repeating a drill in one type of building (six stories, one room on each floor) and then, in a subsequent training, performing drills in a different type of building (two stories, multiple rooms on each floor). As expected, trainees reported reduced stress and fewer performance

problems in subsequent repetitions of one scenario but a reversion to pretraining [levels of stress](#) with the new scenario.

"If you learn the scenario, you can predict what will happen in that one scenario, but you can't predict what will happen in situations that look a little different," said Baumann. "If you learn general principles, then you can predict what is going to happen in a wide range of situations."

The authors suggest that trainers should increase the range of scenarios to which firefighters are exposed. Desktop-based simulators are available to supplement live-fire training with a variety of scenarios to enable trainees to learn basic principles, even though such simulators cannot replicate a live-fire environment.

"Repeated high levels of stress are associated with a host of health problems," Baumann said. "In [firefighters](#) specifically, the stress has been linked to increased risk of alcohol abuse, cardiovascular disease, and posttraumatic stress disorder. Finding a way to reduce the stress levels is a worthy goal."

**More information:** [hfs.sagepub.com/content/53/5/548.full.pdf+html](https://hfs.sagepub.com/content/53/5/548.full.pdf+html)

Provided by Human Factors and Ergonomics Society

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