

THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER



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## \*\* Video and photos available for download: https://bit.ly/3QGOOr9

## OHIO STATE VIRTUAL REALITY TECHNOLOGY PREPARES FIRST RESPONDERS FOR MASS CASUALTY EVENTS

COLUMBUS, Ohio – The increasing frequency of active shooter incidents and other mass casualty events places heighten pressure on first responders to quickly assess, triage and treat victims to save lives. To help first responders prepare for these critical events, <u>The Ohio State University College of Medicine</u> developed a cutting-edge virtual reality disaster response training program.

During the training, participants wear a VR headset that places them in an underground subway bombing scenario where they practice SALT (sort, assess, life-saving interventions, treatment and/or transport) triage. The program can be customized, varying the number of victims, the injuries, and distractions like smoke and noise. Following each training session, the program immediately produces a performance assessment.

"It's very important for first responders, law enforcement, and physicians to be able to go into a scene, do hemorrhage control, and triage victims to determine who needs medical care first," said <u>Dr. Nicholas Kman</u>, professor of emergency medicine at Ohio State College of Medicine. "Our high-fidelity program is designed to look very realistic, and once you put that headset on you are immersed into a scenario where you can move around, interact with victims, and make life-saving decisions."

Designed in partnership with <u>The Ohio State University Advanced Computing Center for the Arts and Design</u>, the artificial intelligence in the program allows trainees to give commands, ask questions and receive realistic feedback from victims that is consistent with their condition. Participants are equipped with the tools needed to treat life-threatening injuries, such as tourniquets and wound packing, as well as triage tags to prioritize care when more help arrives.

"Our virtual reality platform allows us to make an unlimited number of scenarios with an unlimited number of victims," Kman said. "We can run learners through as many as times as it takes for them to get good at this process."

The VR disaster response training program is being used in several community EMS and fire departments and is quickly expanding across the country.

"We want to train our EMS clinicians to function at an optimal level in high-risk and high-stress environments," said <u>Dr. Ashish Panchal</u>, professor of emergency medicine at Ohio State College of Medicine and medical director of Delaware County EMS. "Virtual reality gives us a safe way to optimize training so our professionals are prepared and can confront these challenges the best they possibly can."

The project was funded by a grant from the Agency for Healthcare Research and Quality.

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