



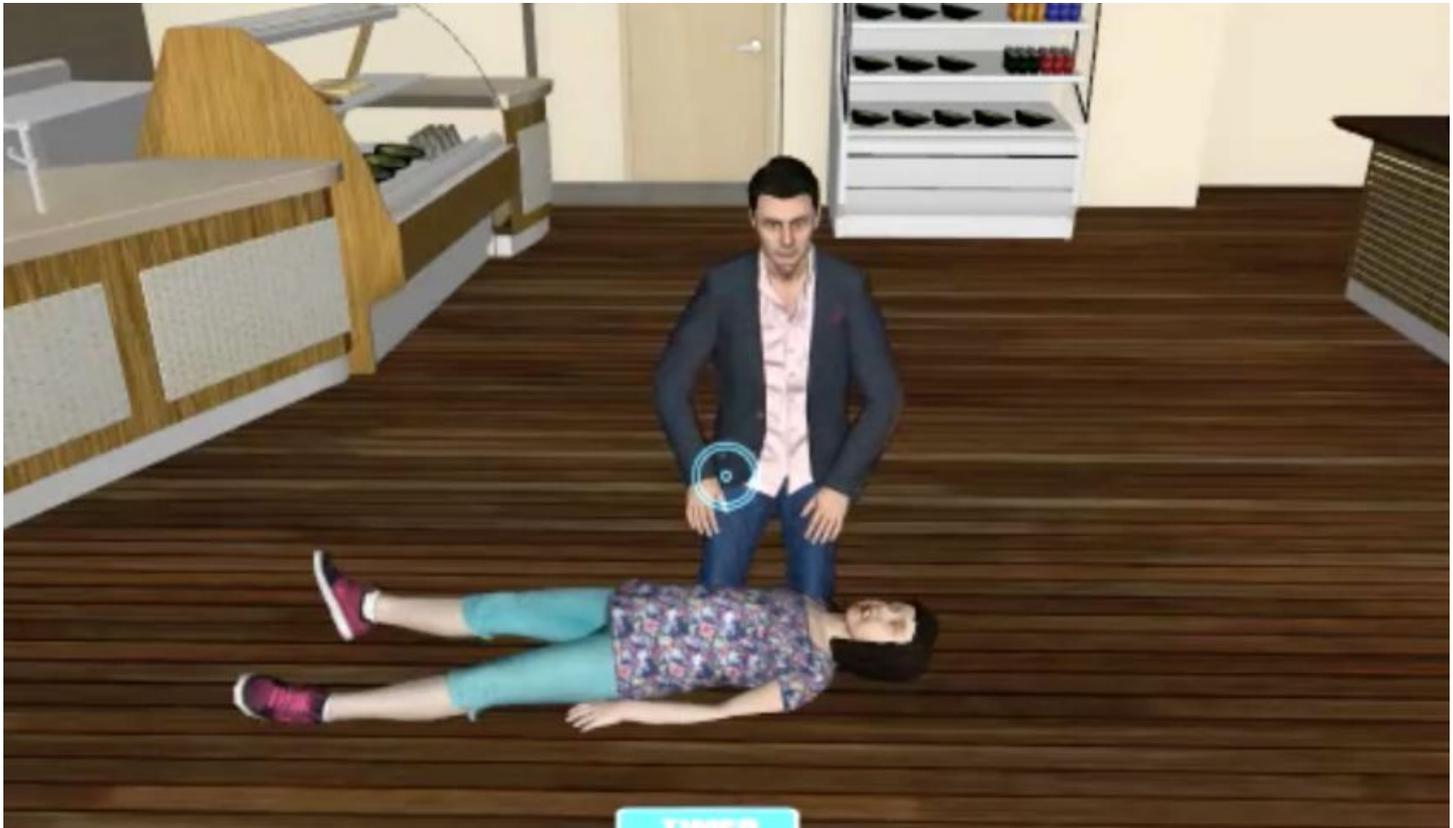
TECH VIRTUAL REALITY

# Here's why hospitals are using virtual reality to train staff

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Hospitals and soon consumers will be able to use mobile VR to learn CPR.

Courtesy of Next Galaxy Corp

## **Virtual reality allows medical professionals to practice procedures that don't occur frequently in real life.**

Mobile virtual reality devices like Google Cardboard, Gear VR, and VR One are changing the way hospitals and health care providers are training doctors, nurses, and medical personnel.

Augmented and virtual reality company Next Galaxy Corp has partnered with Nicklaus Children's Hospital to develop virtual reality medical instructional software for procedures like cardiopulmonary resuscitation (CPR), nasal gastric tube insertion, Foley catheter insertion, intubation, starting an IV, wound care, and the Heimlich maneuver.

Although still in its early days, VR usage is paying off. According to Dr. Narendra Kini, CEO at Miami Children's Health System, the retention level a year after a VR training session can be as much as 80%, compared to 20% retention after a week with traditional training. Kini says people are actually creating memories, so it's like they've done the procedure before.

"The level of understanding through VR is great because humans are primarily visual and VR is a visual format," Kini says. "We believe that there are numerous opportunities where repetitive training and skill set maintenance are critical for outcomes. Since there are not enough patients in many cases to maintain these skill sets, virtual reality is a real addition to the arsenal. Imagine also scenarios where we need to practice for accreditation and or compliance. In these situations virtual reality is a god-send."

VR training also helps hospitals and medical facilities reduce costs. Mary Spio, CEO of Next Galaxy, says that patient education and medical professional training and proficiency are a huge part of health care costs. Because health care knowledge doubles every six to eight years, there's a constant need for new proficiency training.

For example, the 65,000 elderly care facilities in America currently spend on average \$3,000 per employee to learn tracheal insertion. It's a specialized procedure that before VR could only be practiced on a live person. With the high turnover in the elder care industry, this particular training can cost tens of thousands of dollars per facility annually.

But Next Galaxy is developing its VR software to work across any iOS or Android mobile device, so the cost of entry will be very low. Tracheal insertion training in VR, which also eliminates the need to travel to specialized training centers, costs just \$40 per employee.

And there are other benefits to VR training besides cost savings. Next Galaxy VR software uses Leap Motion force feedback technology so that health care professionals can feel when they're doing the procedure wrong. Practicing on real patients carries the risk of major consequences such as the perforation of organs, and potential malpractice and other lawsuits.

Next Galaxy is working with multiple hospitals, clinics, nursing homes, assisted care facilities, and medical schools on multiple VR educational projects. Spio says current methods like videos and diagrams leave a lot to the imagination, while VR can bring realistic 3D digital representations of organs to life. Spio believes VR can eventually help everyone from surgeons and radiologists to incoming medical students.

Spio says the CPR and Heimlich VR software will also be available on iTunes and Google Play in Q4 for \$4.99 each, so that anyone can learn these life-saving techniques through VR.

Kini believes over time VR will permeate the consumer experience and become the standard for everything from communicating care, obtaining consent, and explaining procedures to patients.

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