

State of EMERGENCY

By G.K.
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INNOVATIVE EMERGENCY TRAINING PROGRAMS
ARE JUST WHAT THE DOCTOR ORDERED



In Florida, about one person in every three will need some kind of emergency care this year. Orlando's Emergency Medicine Learning and Resource Center (EMLRC) helps ensure that the people who treat them are as highly trained as possible.



This specialized "think tank" focuses on education and research activities that promote and advance emergency medicine, disaster management, pre-hospital emergency care and public health issues. Its programs serve the full range of emergency care personnel: EMTs, paramedics, firefighters and emergency room nurses and doctors, as well as disaster specialists including planners, urban search-and-rescue teams and counter-terrorism responders. Training is done through seminars, lectures, simulation

labs, interactive DVDs, CD-ROMs and Web-based applications.

The roots of today's emergency medical system reach back to the 1928 founding of a volunteer rescue squad in Roanoke, Va. Today, there are more than 800,000 emergency care providers in the nation with more than 50,000 of them practicing in Florida.

"Central Florida is a natural site for the center," says Beth Brunner, the center's CEO.

As a result, for the past 20 years, the

MED ED ON THE ROAD

Emergencies don't just happen in urban areas where cutting-edge medical care is easily available.

EMLRC's Mobile Simulation Lab puts the latest in emergency medical training on the road, sending high-tech expertise out to the state's smaller communities.

Housed in a 45-foot motor coach and made possible in part by a grant from the Florida Department of Health's Bureau of EMS, the simulation lab debuted in May at a cost of about \$750,000.

The Mobile Simulation Lab is one of a kind, the state's only mobile medical simulator with both ambulance and emergency room settings. Users work in one side or both, depending on the training they require.

Everything is as realistic as possible, from an ambulance setting that's built to the exact specifications of a real emergency vehicle, to the sounds and lights that responders would experience in a real situation.

Even the "patient," the anatomically accurate SimMan® or SimBaby®, can respond and react almost like a real human.

He can moan and talk, courtesy of a computer and Karen Crowe, EMLRC's clinical programs coordinator and the lab's director and instructor. He has a realistic airway system and physiologically correct pulse points. His heart beats — and skips beats to mimic more than 2,500 cardiac rhythm variations. He can even bleed or urinate, depending on the scenario.

"We immerse the students in the environment they'll be working in," says Crowe, who's also an EMT, paramedic and registered nurse, as well as a certified instructor and a member of the Central Florida Disaster Medical Assistance Team.

Both the lab and mannequins are fully customizable, letting Crowe conduct hundreds of scenarios — from a heart attack or car crash to bio-terrorism events — and provide specific training for any emergency personnel.

EMLRC has brought thousands of emergency care leaders from around the world to Orlando to identify new innovations in emergency medicine delivery. Some of these advances were first tested at meetings held in Orlando. In fact, the first broadcast autopsy of a trauma victim was performed in Orlando using a cadaver and technology to view and transmit live video, thus providing students a direct and detailed explanation of the mechanism, cause and effect of traumatic injury.



PHOTOS COURTESY OF EMLRC

In another example of "instant education", EMLRC established live audio feed from the New York City EMS Command Post to Orlando the day of the World Trade Center bombing in 1993, allowing students attending the International Disaster Conference to learn first hand how to prepare for, and respond to, a mass casualty event such as a bombing. This type of education requires excellent relationships with all states and emergency medicine-related agencies and organizations.

In addition to keeping emergency workers current on the latest advances in medical technology, EMLRC is building partnerships with the University of Central Florida and a number of the area's other high tech enterprises to continually upgrade their training applications.

"We're bridging the gap between the military and civilian community," Brunner says of EMLRC's overtures to the simulation and gaming industries.

Simulation technology — the kind of virtual environment that teaches pilot trainees how to fly without endangering multi-million-dollar aircraft — has obvious medical applications.

"It's [the EMLRC] a safe method to teach skills that normally require a real patient," says director John Todaro.

Recently, the EMLRC launched a new Mobile Simulation Lab that capitalizes on this technology. The 45-foot motor coach will complement EMLRC's basic mission to improve healthcare, both in Florida and, through its conferences and training programs, throughout the nation.



Conference attendees make EMLRC a player in the area's tourism efforts as well. Of the Center's five major conferences every year, four are always in Orlando. They draw an average of 3,000 participants from around the country, in addition to 300 to 350 vendors.


Those visitors stay at area hotels and eat in local restaurants. Many bring their families and visit the attractions as well, often extending their stays to allow more time for fun.

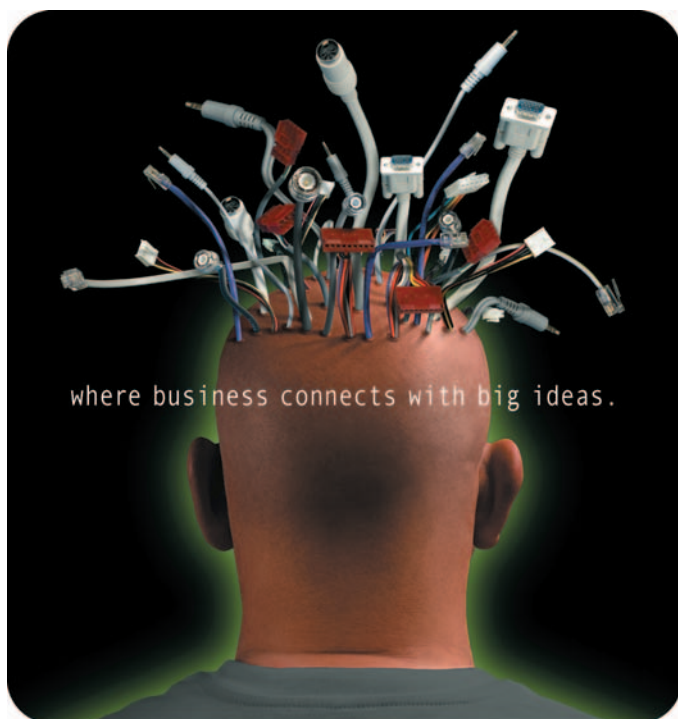
Each attendee is likely to spend about \$1,247 during a three-and-a-half-day visit, according to figures from the Orlando/Orange County Convention and Visitors Bureau.

That is a boon for the Central Florida community representing more than \$9 million in economic benefit — and that's a conservative estimate.

The non-profit center also is raising money for a new facility near Orlando International Airport, which Brunner says will be a "showcase for new and innovative healthcare technology."

When completely finished, the building will give EMLRC plenty of room — more than 32,000 square feet — to provide its technologically advanced education. It will feature video and audio conferencing capability, as well as live Web streaming and Web conferencing. Manufacturers will have space to demonstrate their latest medical devices and train emergency workers who use them. Plans also call for large-group training capacity and a museum of emergency care history and emergency responders.

The center expects to break ground this year on the new complex. 



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