

Varied quality of CPR among EMS, hospitals hurts survival

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The quality of CPR (cardiopulmonary resuscitation) you receive may vary, depending on the EMS department or hospital administering it, according to the American Heart Association.

In a statement published in its journal *Circulation*, the association calls for a renewed focus on improving resuscitation techniques and tracking.

"There have been huge advances in CPR and there's no question that high-[quality](#) CPR saves lives," said Peter Meaney, M.D., M.P.H., lead author of the statement and assistant professor of anesthesia and [critical care](#) at Children's Hospital of Philadelphia. "However, right now there is wide variability in the quality of CPR—and we can do better."

Each year in the United States, more than a half-million children and adults suffer [cardiac arrest](#), but survival rates vary significantly: 3 percent to 16 percent for arrests outside of hospitals and 12 percent to 22 percent in hospitals, authors said.

In the statement, the association urges professional rescuers to:

- Minimize interruptions to [chest compressions](#). Compressions generate blood flow and should be delivered 80 percent of the time the patient doesn't have a pulse.
- Provide the right rate of compressions—100 to 120 per minute are optimal for survival.
- Give deep enough compressions—at least 2 inches for adults and

at least 1/3 the depth of the chest in infants and children.

- Allow the chest to bounce back completely so the heart can refill.
- Give no more than 12 rescue breaths a minute, with the chest just visibly rising, so pressure from the breath doesn't slow [blood flow](#).

"Cardiac arrest is a chaotic event and sometimes we lose track of the fact that high quality CPR is the cornerstone of resuscitation," Meaney said.

To help ensure that CPR providers stay focused on quality of care, the statement also advises:

- Health and emergency care providers gather data on the quality of CPR delivery and patient response at the scene.
- If possible, an experienced team leader should oversee and evaluate the quality of CPR to ensure guidelines are followed, patient needs addressed and other problems limited (such as rescuer fatigue).
- To ensure quality improvement, providers, managers, institutions and systems of care should do debriefings, follow CPR delivery checklists, measure patient response measurements; provide frequent refresher courses and participate in CPR data registries.

Organizations that provide CPR need quality improvement programs, and can start by monitoring one measurement, Meaney said.

"If we focus on improving CPR quality we can save lives. We always need to be better, always need to be pushing the needle, because lives are at stake," he said.

The CPR Improvement Working Group (Laerdal Medical, Philips Healthcare, ZOLL Medical Group) funded the CPR Quality Summit,

which contributed to the statement's development.

Provided by American Heart Association

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