Prehospital Intubation Might Worsen Outcomes in Adults with Cardiac Arrest

Prehospital intubation decreased survival to discharge in patients with ventricular fibrillation/ventricular tachycardia.

A recent study showed possible adverse outcomes in adult cardiac arrest patients who were intubated in the field ([JW Emerg Med Nov 19 2010](https://www.ncbi.nlm.nih.gov/pubmed/21051130)). To assess the effect of prehospital intubation on survival in adult patients with nontraumatic cardiac arrest, researchers reviewed a database of patients with out-of-hospital cardiac arrest who were transported to a single hospital in Michigan between 1995 and 2006.

Of 1414 adult patients with nontraumatic arrest (613 with ventricular fibrillation (VF)/ventricular tachycardia (VT) and 742 with other rhythms), 86% underwent prehospital intubation. Overall, survival to hospital discharge did not differ significantly between intubated and nonintubated patients (6.5% vs. 10.0%). However, among patients with VF/VT, intubation significantly decreased the likelihood of survival to discharge (11.6% vs. 20.8%; adjusted odds ratio, 0.52, after controlling for witnessed cardiac arrest).

**Comment:** The idea that adults with nontraumatic cardiac arrest could be harmed by field intubation seems counterintuitive, but is it? Recent Advanced Cardiac Life Support guidelines emphasize the proven outcome-value of high-quality chest compressions. The bottom line is that intubation, per se, is not of proven benefit in patients with cardiac arrest, and that oxygenation, not intubation, is the key. Improperly performed intubation can be more harmful than no intubation, and future research should compare intubation to placement of extraglottic airway devices, simple bag-mask ventilation, and no ventilation.

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- [Medline abstract](https://www.ncbi.nlm.nih.gov/pubmed/21051130) (Free)