

# Joe Powell

*Clinical Strategist | Resuscitation Performance Specialist | Inventor*

Founder & CEO, Advanced Cardiac Resuscitation (ACR) | Retired EMS Chief

## Professional Profile

Joe Powell began his career as a frontline paramedic, progressing to EMS Chief and ultimately to system-level strategist, educator, and innovator. His work is grounded in real-world operational experience and expanded through published research, device development, and international education. He established the 50.1% Moonshot—a system-level target of achieving 50.1% neurologically intact survival across all cardiac arrest patients—at a time when such outcomes were widely considered unattainable.

## Clinical & Research Contributions

- 1 Co-author — Efficacy and Safety of Tranexamic Acid in Prehospital Traumatic Hemorrhagic Shock — WestJEM 2017 (DOI:10.5811/westjem.2017.2.32044)
- 2 Co-author — Tranexamic Acid in Civilian Trauma Care in the Cal-PAT Study — WestJEM 2018;19(6):977–986 (DOI:10.5811/westjem.2018.8.39336)
- 3 Co-author — Safety and Efficacy of Hospital Utilization of TXA in Civilian Trauma — WestJEM 2020;21(2):218–225
- 4 Co-author — EMS Estimated Transport Time Accuracy — WestJEM 2016
- 5 Co-author — Paramedic Triage Accuracy Study — WestJEM 2016
- 6 Co-author — Rialto Cardiac Survivability Model — JEMS 2017;42(12):28–34
- 7 Co-author — Cardiac Arrest System Performance — JEMS 2019

## Innovation & Intellectual Property

### **Inventor — U.S. Patent 5,515,869**

Pediatric positioning system designed to maintain **neutral spinal alignment and airway positioning** (positioning → airway → airflow; now recognized to influence downstream flow, including blood flow, through pressure gradients)

### **Co-developer & Technical Author — U.S. Patent 5,636,658**

High-flow reed valve system optimizing **pressure gradient–driven airflow dynamics**

**Unifying Principle:** Geometry and **pressure gradients** influence flow performance across mechanical and physiologic systems.

## System Implementation & Impact

- 1 Implementation of TXA protocols in civilian EMS systems
- 2 Influences provider performance and decision-making under stress
- 3 Focus on optimizing pressure gradients, flow dynamics, and perfusion
- 4 Bridges protocol, physiology, and real-world execution

## Thought Leadership & Media

Established the 50.1% Moonshot—goal of 50.1% neurologically intact survival across all cardiac arrest patients.

Reframes cardiac arrest as a system performance problem driven by pressure gradients, flow, and execution.

**“If you don’t protect the gradient, you don’t perfuse the brain.”**

Co-host — ACR Moonshot Podcast

## Speaking & Education

- 1 National and international lecturer
- 2 International engagements: Taipei, China, South Korea, Jakarta, Germany, London, Canada
- 3 Translates complex physiology into operational performance

## Business & Leadership

- 1 Founder & CEO — Advanced Cardiac Resuscitation (ACR)
- 2 Owner — Advanced Medical Technologies
- 3 Owner — Vibrant K9

## Core Doctrine — ACR

Survival is determined by perfusion, and perfusion is determined by pressure gradients—not protocol alone.

ACR emphasizes protecting the gradient and aligning interventions with physiology.