EOlife®

Your life saving ventilation feedback device.

ARCHEON MEDICAL

REAL-WORLD DATA: EOLIFE USE TRIPLED NEUROLOGICALLY INTACT SURVIVAL

A recently published French study [1], involving 166 OHCA adult patients managed by firefighters performing BLS CPR, found that EOlife use was associated with a significant improvement in 30-day survival with favorable neurological outcomes: from 3.39% to 10.42%.

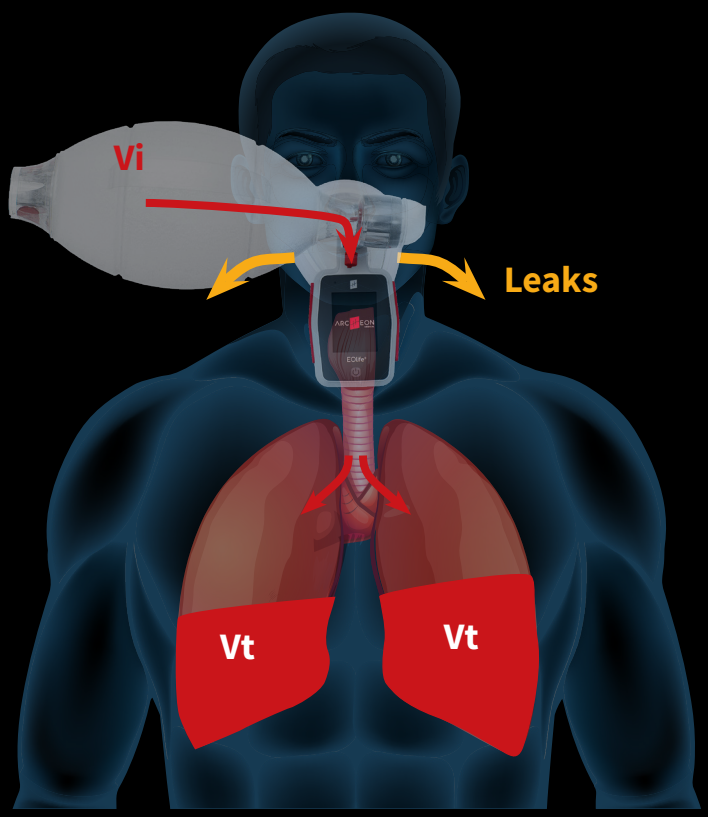
These findings are consistent with a 2023 American study [2] conducted on 1,976 OHCA patients, which showed that achieving better tidal volume was associated with a threefold increase in survival to hospital discharge.

x3

Cardiac arrest patients ventilated with EOlife had a 10.4% survival rate with good neurological outcome (versus 3.39% without EOlife, $p < 0.05$), resulting in a threefold increase.

HOW EOLIFE WORKS ?

EOlife uses a single-use sensor connected between the bag and the airway device and calculates the airflow (both inspired and expired) in real-time and key ventilation parameters such as Tidal Volume and ventilation rate. It provides immediate feedback to ensure the rescuer provides the right amount of air at the correct rate.



Why Tidal Volume is important ?

Tidal Volume (Vt) is the volume of gas that actually reaches the patient's lungs and is based on the measurement of expiratory volume, inspiratory volume and leaks calculated during both phases.
ERC and AHA Guidelines recommend that adult cardiac arrest patients should be ventilated with a tidal volume of 6 to 8ml/kg of body weight.
Insufflated Volume (Vi) cannot represent tidal volume as it does not take leaks into account.

Cardiac arrest patients do not receive enough oxygen 80% of the time. A recent clinical trial conducted by the Paris Fire Brigade[3] demonstrated a median mask leakage rate of 41% during CPR with 80% of tidal volumes below 400 ml.

EOlife®

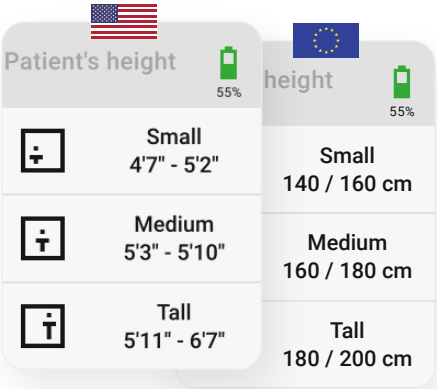
The only ventilation feedback device (VFD)
to calculate the volume of gas reaching
the patient's lungs (**TIDAL VOLUME**)

Click here to Contact Us

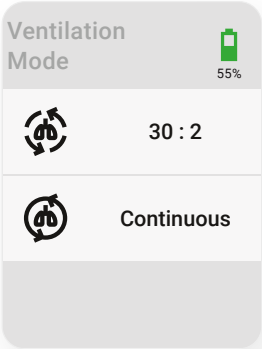
EOlife®

CE-marked and FDA-cleared medical device enabling real-time calculation of insufflated volume, **tidal volume** and ventilation frequency, along with **visual feedback** to **deliver ventilation in accordance with ERC or AHA recommendations**.

EASY TO USE. OPERATIONAL IN A FEW SECONDS.



Selection of patient height



Selection of ventilation mode

EOlife is ready to use

1

Real-time calculation of the following parameters:
Insufflated volume (Vi)
Tidal Volume (Vt)
Ventilation frequency (Freq.)

2

Visual guide on the adequacy of insufflated volume

3

Intelligent visual alerts prioritization system

ACCURATE MEASUREMENTS.

MONITOR THE QUALITY OF YOUR VENTILATIONS IN REAL TIME.

Vi

Vi is the insufflated volume of air/oxygen measured at the output of the bag when you compress it.

Vt

Vt is a precise estimation of the tidal volume, meaning the amount of air/oxygen that has entered the patient's lungs.

Freq

Freq is a calculation of the ventilation frequency based on the trend of the latest ventilation cycles.

The tricolor bargraph indicates in real time **whether the Vi for each ventilation is between 6 and 8ml/kg**

In 'continuous' mode, a countdown timer guides the user to aim for 10 ventilations per minute

If the parameters are outside the tolerances, a visual alert activates at the bottom of the screen

THE ULTIMATE CONNECTION.

RECORD & TRANSFER YOUR DATA, MANAGE YOUR UPDATES .

EOlife Connect MD app allows the recording and transfer of data with EOlife Medical Device. Ideal for event review, clinical trials and research.

Robustness and reliability.
Meeting the needs of healthcare professionals worldwide.

Ventilation data (Vi, Vt, frequency) is recorded cycle by cycle, allowing for unmatched analysis of manual ventilation.

Compatibility and simplified updates. Export and visualize your ventilation data on every OS.

EOlife Connect MD is compatible with Mac, PC, and Linux, enabling the export and visualization of EOlife data. Additionally, it offers quick updates in just one minute, significantly simplifying the user experience and ensuring your EOlife device is always equipped with the latest enhancements and innovations.

EOlifeX®

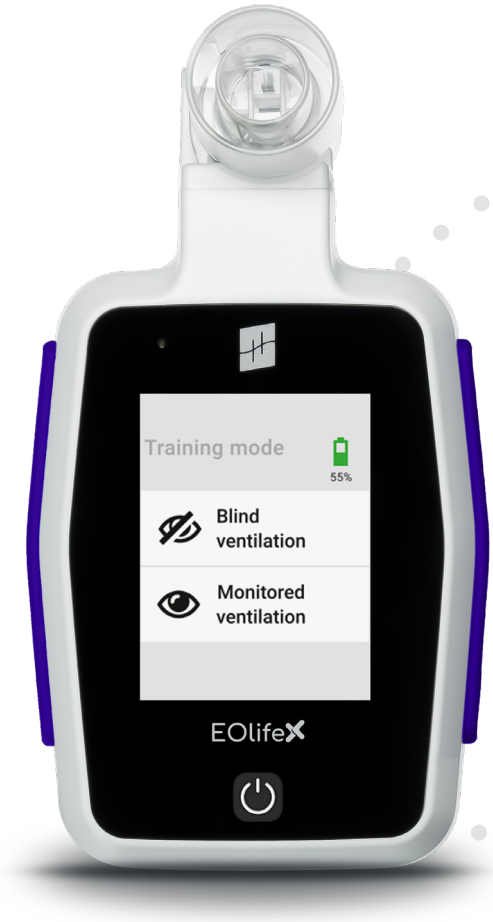
The ultimate **tool** for
High Performance Ventilation training

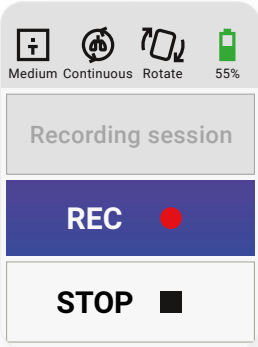
Click here to Contact Us

EOlifeX®

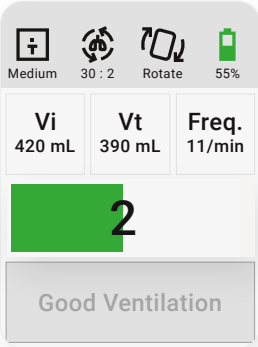
Training tool allowing calculation and recording of insufflated volume, **tidal volume**, manual ventilation frequency, **in real time,** to practice ventilation in accordance with ERC and AHA recommendations. **EOlife X enables training on adult and paediatric (> 1 year) manikins.**

TWO TRAINING MODES.
FOLLOW THE GUIDE OR TEST YOUR SKILLS.





Blind mode.
This mode records your ventilation sessions without visual guidance. Export your ventilation data via Bluetooth to evaluate your progress*.

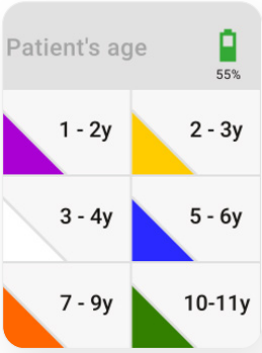


Monitored mode.
This mode visually guides you through your ventilation sessions. Practice as if using an EOlife.

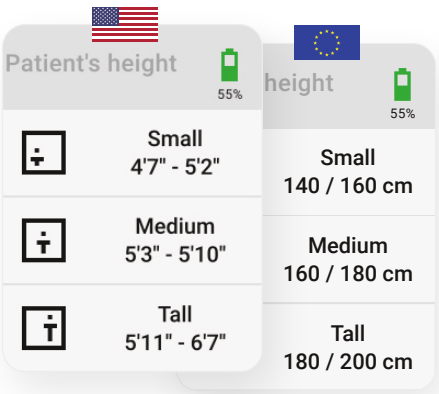
* Requires the EOlife Connect app, available on the Apple Store and Google Play Store.

EOlifeX®

TWO PATIENT TYPES.
CHOOSE YOUR TRAINING.



Paediatric Patients
The integrated paediatric ventilation function in EOlife X defines target ventilation criteria based on six age categories. The color code follows that of the Broselow® tape.



WHY VFDs ARE NEEDED IN **PAEDIATRIC** RESUSCITATION TRAINING?

A recently published study by J. Finney[4] examined the impact of EOlife X on paediatric ventilation training outcomes.

Scenario of the study

The study included 75 EMS clinicians who were enrolled during their shifts. Participants were asked to perform bag-mask ventilation on a simulated 3-year-old apneic patient.

EOlife X significantly improves the quality of delivered ventilation.

+60%

improvement of tidal volume delivered within the target range. The proportion of breaths with optimal tidal volume increased from 13.5% to 73.3% with EOlife X.

+40%

improvement of ventilation rate delivered within the target range. The proportion of breaths with good ventilation rate increased from 57% to 96% with EOlife X.

99% of participants agreed that a VFD would help them ventilate patients more appropriately

EOLIFE X **ENSURES GUIDELINES ADHERENCE** FROM THE VERY FIRST TRAINING SESSION

A recent nationwide U.S. study[5] was conducted by Robert Page and the Manual Ventilation Academy, involving **1,367 participants across 26 U.S. states** and 2 Canadian provinces.

Participants were evaluated while performing manual ventilation for two minutes—first without any feedback, and subsequently with the use of EOlife X's real-time feedback.

Across

1 367

participants

Initial training with EOlife X resulted in:

Improved tidal volume delivery
(436.43 mL average vs. 293.83 mL without feedback)

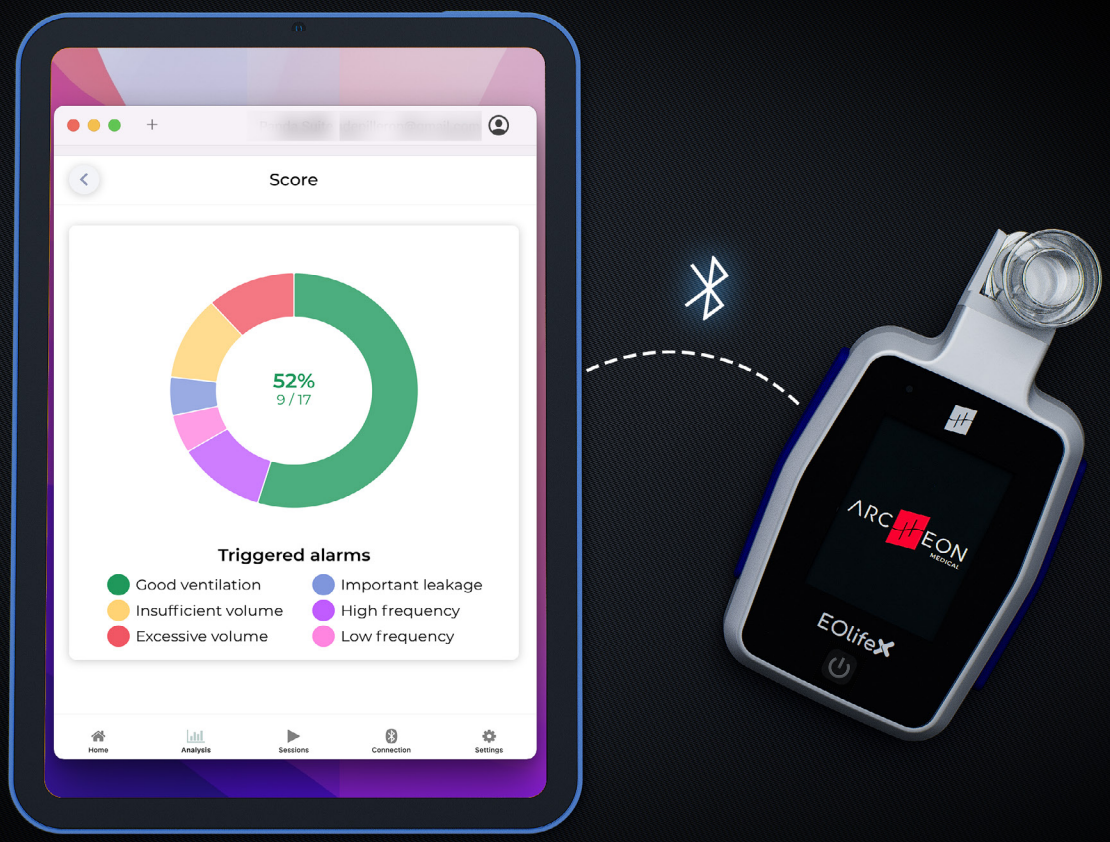
Reduced mask leakages
(10% average vs. 46% without feedback)

TRACK YOUR SKILLS PROGRESS OVER TIME.

EOlife Connect

Thanks to the EOlife® Connect app, you can download and save each of your Training sessions to allow Booster Training and Spaced Learning as recommended by AHA to improve CPR skills retention. [3]

EOlife® Connect app is the only solution that offers a detailed analysis of the ventilation parameters, thus allowing to focus on the areas to correct and improve.



GET IT ON Google Play

Download on the App Store

COMPARISON MATRIX

	EOLIFE®	EOLIFE X®
Can be used on patients (CE marked, FDA cleared)	YES	NO
Can be used on a manikin	YES	YES
Possible deactivation of the leakage visual alert	NO	YES
Type of patient / manikin	Adult	Adult / Child (> 1 year)
Selection of ventilation mode (CPR/Continuous)	YES	YES
Recording and data export	YES (requires the EOlife Connect MD application) see page 7	YES (Requires EOlife Connect on Apple Store or Google Play Store.) see page 13
Type of sensor	Single-use (Flowsense)	Reusable (Flowsense X)
Accessories	Battery, charger and transport case included (sensor to be purchased separately)	Battery, charger, transport case, and 1 sensor included

TECHNICAL SPECIFICATIONS

Dimensions (L x W x D)	130 mm x 75 mm x 30 mm (5.11 in x 2.95 in x 1.18 in)
Weight	170 grams ±5 grams (5.997 oz ± 0.176 oz)
Operating conditions	• Temperature from 0°C (32° F) to +40°C (104° F) • Relative humidity from 15% to 95% (non-condensing) • Atmospheric pressure from 620 hPa (altitude of 4000 m) to 1060 hPa (altitude of -500 m)
Transient operating conditions (up to 20 minutes maximum)	• Temperature from -20°C (-4° F) to +50°C (122° F) • Relative humidity from 15% to 90% (non condensing)
Run time	min 5 hours
Ingress Protection against solids, dust, and water intrusion	IP44 (configuration in use, meaning the device connected to its battery and sensor)
Measurement accuracy	Volume measurements are based on FlowSense® sensor measurements and are expressed in mL for the BTPS (Body Temperature and Pressure, Saturated). The measurement accuracies of the parameters displayed on the screen are as follows: • Vi (insufflated volume): ± 4.9% of the actual measured value under normal conditions of use • Vt (tidal volume): ± 5.5% of the actual measured value under normal conditions of use • Freq (ventilation frequency): ± 1 cycle per minute FlowSense® data: • Flow range: ± 250 slm (standard liters per minute) • Dead space: < 10 ml **Note :** Some types of BVM may affect the measurement accuracy due to their design (non-laminar outgoing airflow). A slight measurement deviation may be observed but has no impact on compliance with regulatory requirements.

EOLIFE DEVICES ARE USED WORLDWIDE BY :

EMERGENCY MEDICAL SERVICES

USA/CANADA

- Seattle King County Medic One
- Tualatin Valley Fire and Rescue
- (Greater Portland, Oregon)
- Rochester Ambulance Services, NY
- Bradford Fire and Rescue, Florida
- Boulder EMS Services, Colorado
- Los Angeles County EMS
- Cleveland Clinic EMS
- John Hopkins Howard County EMS
- Palo Alto EMS / Fire Department
- Huntington Beach Fire / EMS, CA
- South County Fire / EMS, WA
- Region Hospital EMS, MN
- Long Beach Fire Department, CA
- Saskatoon Fire Department
- Maryland Institute for Emergency Medical Services System
- South County Fire EMS
- Thomas Jefferson EMS Council
- Escambia County Emergency Medical Services
- Charlottesville Fire Department
- Mountain View Fire Rescue
- Waukee Fire Department
- Yakima County Department of Emergency Medical Services
- San Diego Fire Rescue Department
- San Rafael Fire Department
- Bradford County Public Safety Center
- Fluvanna County Emergency Services
- Texas Division of Emergency Management

EUROPE

- Fire Fighters of Paris (BSPP), France
- Fire Fighters Besançon, France
- Fire Fighters of Reims, France
- Ambulance l'Hom & Fils (Bleurville), France
- Ambulance Petain, France
- Ambulance of 56 (Baud), France
- Group Buttgen Ambulance (Mondelange), France
- North West Ambulance Service, UK
- East of England Ambulance Service, UK
- Fire Fighters of Bologna, Italy
- EMS of Geneva University Hospital, Switzerland
- Welsh Ambulance Service

HOSPITALS

USA/CANADA

- Rush University Hospital, Chicago
- Harborview Medical Center (University of Washington)
- UT Southwestern Medical Center, Dallas
- UF Health Jacksonville, Florida
- UC Davis Sacramento, CA
- Stanford's Children Hospital, CA
- Hennepin Medical Center, MN
- LA Harbour – UCLA Department of Emergency Medicine

EUROPE

- University Hospital CHU (Besançon), France
- General Hospital Center CHG (Jura), France
- General Hospital Center CHG (Barle Duc), France
- University Hospital of Strasbourg, France
- Great Ormond Street Hospital (London), UK

RoW

- Al Kuwait Hospital Sharjah, UAE
- Lotung Poh-Ai Hospital – Taiwan

UNIVERSITIES/COLLEGES/ TRAINING ORG.

USA/CANADA

- St Louis School of Medicine (Washington University)
- State of Virginia – EMS Education Department
- Airway ManagementEducation Center ('The Difficult Airway Course')
- University of Arizona College of Medicine, AZ
- The Lundquist Institute
- Saskatchewan Polytechnic, Saskatoon
- The Alpert Medical School of Brown University
- Health Sciences Department - University of Hawaii-Kapi'olani Community College
- Jackson State Community College
- Paul D. Camp Community College
- Missoula College University of Montana
- Portland Community College
- West Shore Community College
- Houston Community College
- Inver Hills Community College

EUROPE

- University of Santiago de Compostela, Spain
- University of Madrid, Spain
- Higher Ambulance School (Lausanne), Switzerland
- Dublin University, Republic of Ireland
- Liverpool John Moores University, UK
- Edge Hill University, UK
- Christ The King University, UK
- York St John University, UK
- Greenwich University, UK
- Sheffield Hallam University, UK
- Buckinghamshire University, UK
- University of Bristol, UK
- Centre d'Enseignement des Soins d'Urgences 54, France

RoW

- Higher Colleges of Technology, UAE
- National Taiwan University, Taiwan

Click here to learn more

If your department provides manual ventilation to patients, ***this device is a must have***

Justin Arnone, Chief of EMS
St. George Fire Department.

Initially, we purchased two EOlife X training devices to test with our staff, EMT students, and First Responder Organizations. The results were so compelling that we soon placed EOlife devices on all of our ambulances. (...) For any EMS agency committed to patient care excellence, ***EOlife is not just a tool — it's a necessity***

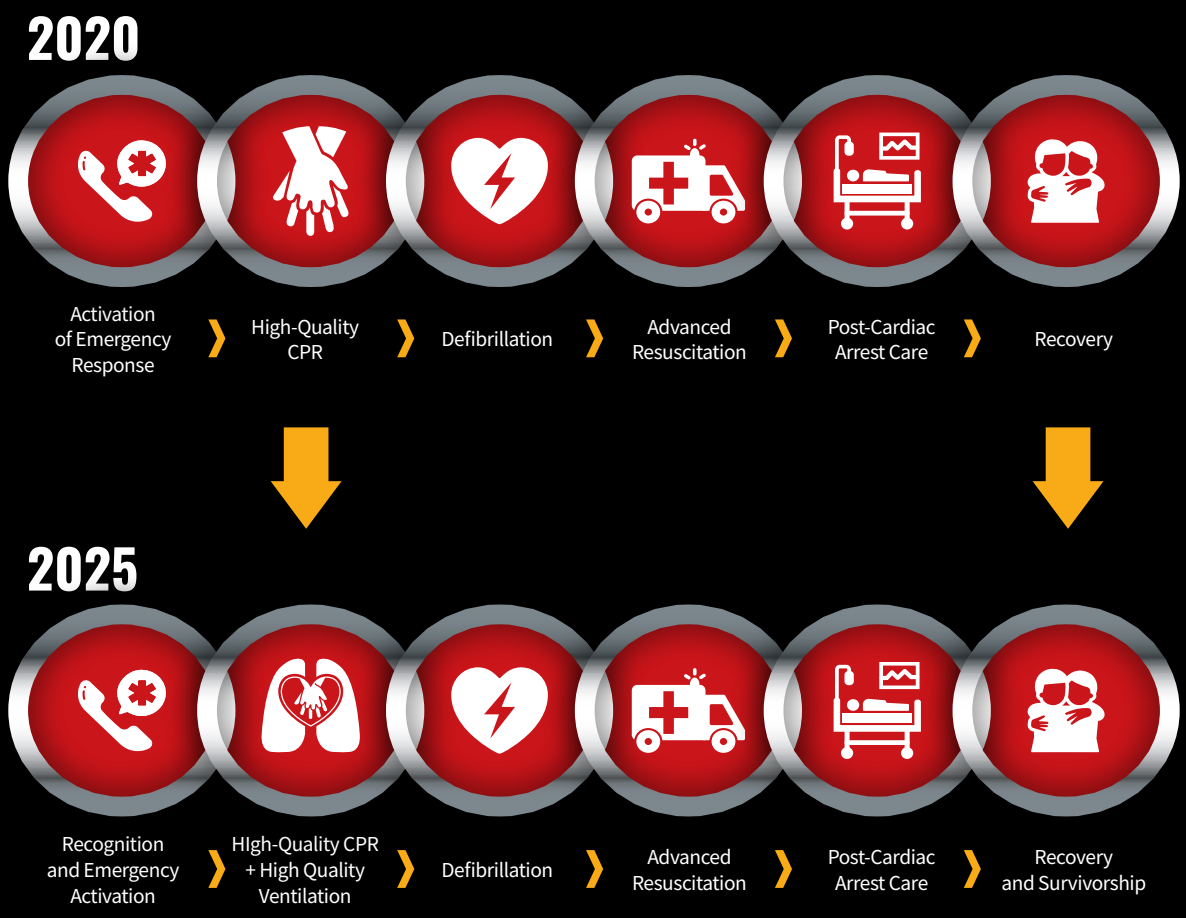
John Mayne, NRP, EMS Coordinator and Training Coordinator
at Calhoun County EMS.

GLOBAL GUIDELINES CALL FOR NEW STANDARD IN CPR

2025 AHA Guidelines updated the chain of survival and, for the first time, explicitly recognize high-quality ventilation as a determinant of survival and neurological outcomes — reinforcing its role alongside chest compressions in effective CPR. [6]

2025 ERC Guidelines dedicated, for the first time, a specific section to ventilation feedback devices (VFDs), acknowledging the challenges of ventilation adherence during CPR. They recommend that VFD implementation occur in a controlled environment— an approach illustrated by real-world studies such as the Louis-Pasteur University research [7].

It's time to act. The evidence is growing. Integrating Ventilation Feedback Devices like EOlife is a concrete, guideline-aligned step toward meeting the evolving standard in CPR



ACCESSORIES

US : AUS00055
EUR : A0000055
EOlife®

A0000051
EOlife® battery

A0000044
Flowsense® sensors

A0000033
EOlife ® carry bag

A0000089
EOlife X®

A0000110
EOlife X® battery

A0000095
FlowsenseX® sensors

A0000090
EOlife X ® carry bag

A0000029
EOlife / EOlife X® charger

A0000117
EOlife® data transfer cable

References

(1) Da Cunha, Marie. (2025). Use of a manual ventilation assistance device for the management of out-of-hospital cardiac arrest by firefighters in Doubs, a real-world study. DOI:10.13140/RG.2.2.25073.54884

(2) Idris, A. H., Aramendi Ecenarro, E., Leroux, B., Jaureguibeitia, X., Yang, B. Y., Shaver, S., … Wang, H. E. (2023). Bag-Valve-Mask Ventilation and Survival From Out-of-Hospital Cardiac Arrest: A Multicenter Study. Circulation, 148. DOI: 10.1161/CIRCULATIONAHA.123.065561.

(3) Lemoine F, Jost D, Lemoine S, et al. Manual bag-valve-mask ventilation during out-of-hospital cardiopulmonary resuscitation: a prospective observational study. Resuscitation. Published online November 12, 2025. doi:10.1016/j.resuscitation.2025.110895

(4) Finney JD, Siegler J, Wang J, et al. Feasibility and Preliminary Outcomes of a Simulated Prehospital Pediatric Ventilation Scenario Using a Ventilation Feedback Device. Prehosp Emerg Care. Published online September 25, 2025. doi:10.1080/10903127.2025.2558861.

(5) R. Page, S. Virk, J. Arnone et al. Novel Point of Care Ventilation Feedback Device (VFD) improves Adult BVM Performance. Putting the «P» back in CPR. Presented at: CASSummit, Phoenix, 2025.

(6) Kleinman ME, Buick JE, Huber N, et al. Part 7: Adult Basic Life Support: 2025 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2025;152(16_suppl_2):S448-S478. doi:10.1161/CIR.0000000000001369

(7) Smyth MA, van Goor S, Hansen CM, et al. European Resuscitation Council Guidelines 2025 Adult Basic Life Support. Resuscitation. 2025;215 Suppl 1:110771. doi:10.1016/j.resuscitation.2025.110771

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