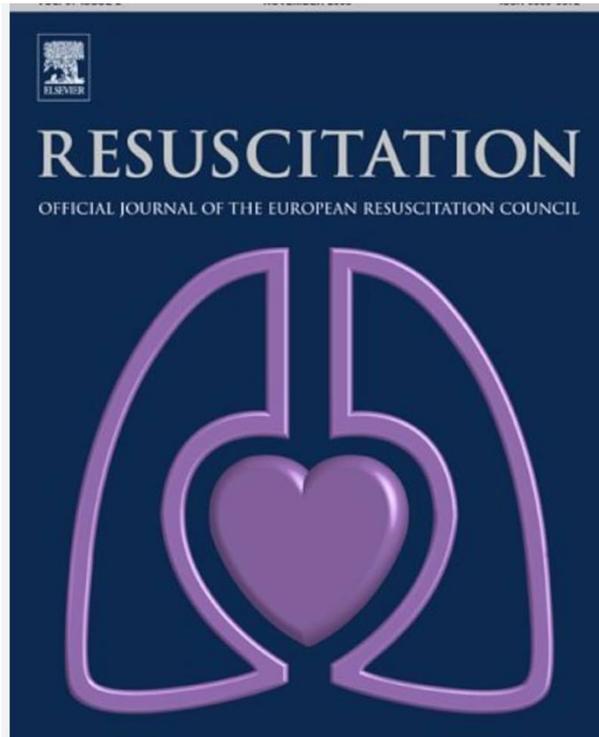


Quadrimed
Crans-Montana

Dr. Thomas Fishman
Dr. Daniel Fishman

23. Janvier 2026

Recommandations 2025



System-specific Chains of Survival

The 6 links in the adult out-of-hospital Chain of Survival are:

- Recognition of cardiac arrest and activation of the emergency response system (calling 9-1-1 in the US)
- Early CPR with an emphasis on chest compressions
- Rapid defibrillation
- Advanced resuscitation by Emergency Medical Services and other healthcare providers
- Post-cardiac arrest care
- Recovery (including additional treatment, observation, rehabilitation, and psychological support)

A strong Chain of Survival can improve chances of survival and recovery for victims of cardiac arrest.



Figure 2. Updated 2025 Chain of Survival.

HISTORY: XVIII^{EME} - XIX^{EME}

The patient is cold



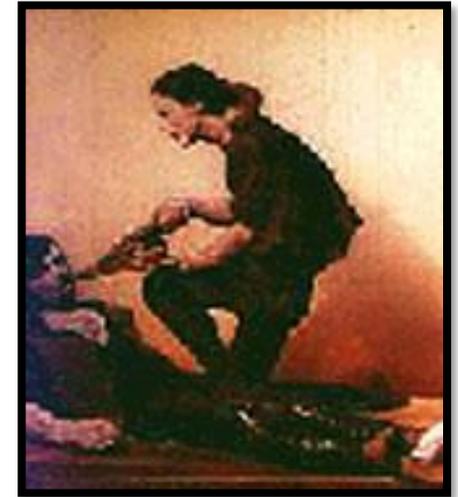
He must be reheated !

The patient is motionless

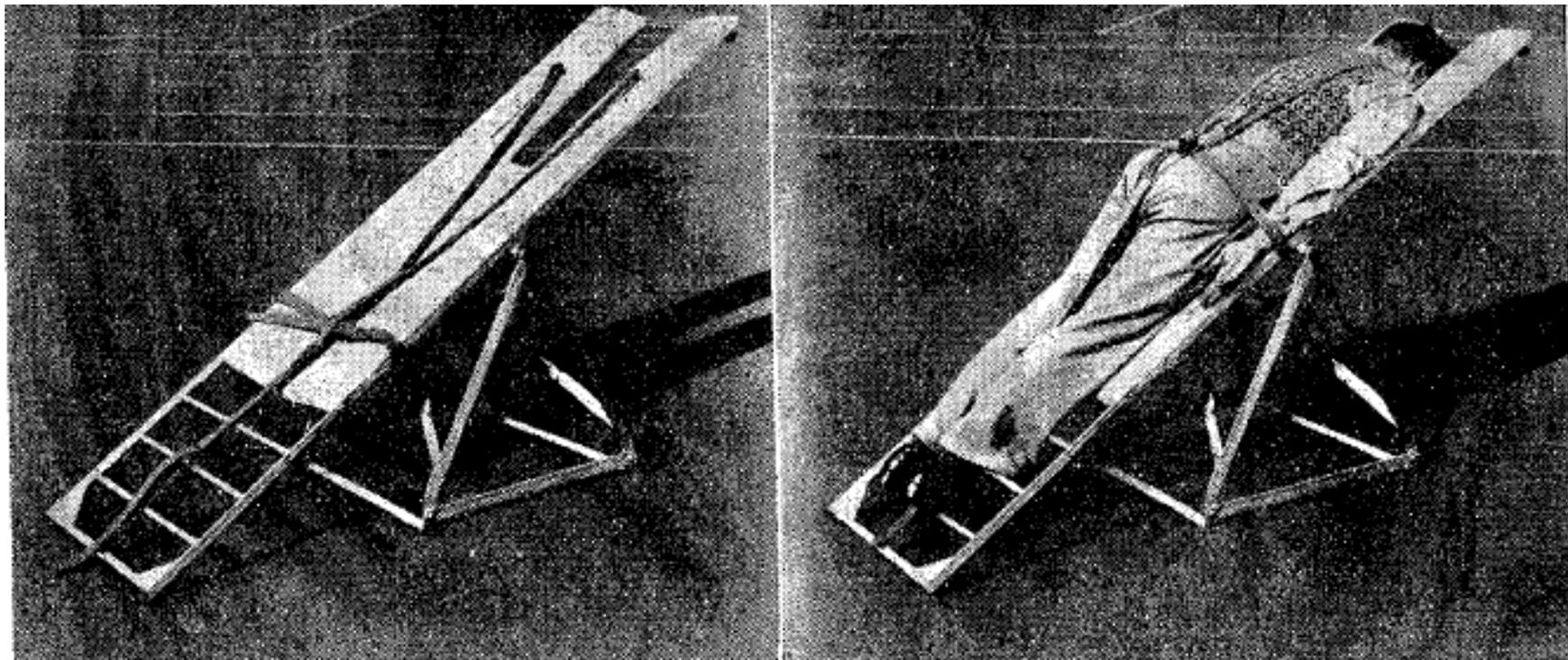


He must be moved !

The patient is not breathing



He must be ventilated !

THE LANCET *Drs KILLICK AND EVE* : ROCKING METHODE OF
ARTIFICIAL RESPIRATION*(Sept 30, 1933)*

The Riley stretcher for Eve's rocking method of artificial respiration. It is adapted for patients of different lengths by (1) a padded groove for the face ; (2) slots for the shoulder straps. (The V-strap should be attached to the top rung, not as shown.) The right-hand photograph shows the patient strapped on the stretcher—prone if unconscious. A timing device permits a dozen double rocks per minute.

"RECENT" HISTORY

Drowning / asphyxia▶ **«cardiac arrest»**

➤ **Défibrillation int. 1947, ext. 1956**



➤ **Mechanical ventilation** **1952**



External cardiac massage
1960

THORACIC CARDIAC MASSAGE

DeBakey, Dr. Ing., James R. Jude, M.D.
and
Micklerbocker, M.S.E., Baltimore



Fig 2.—Position of hands during massage of adult.

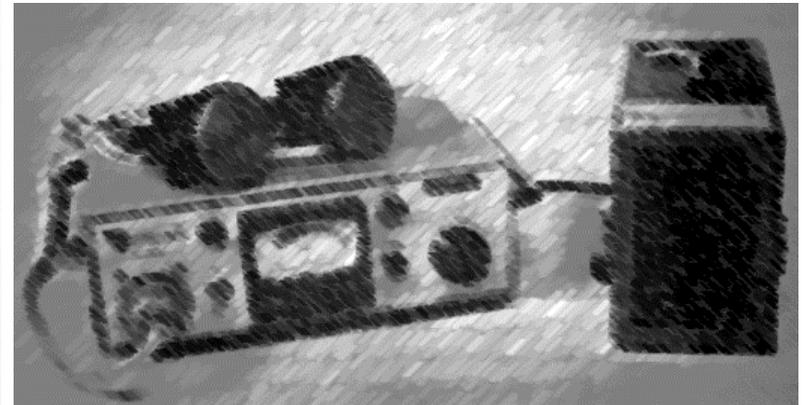
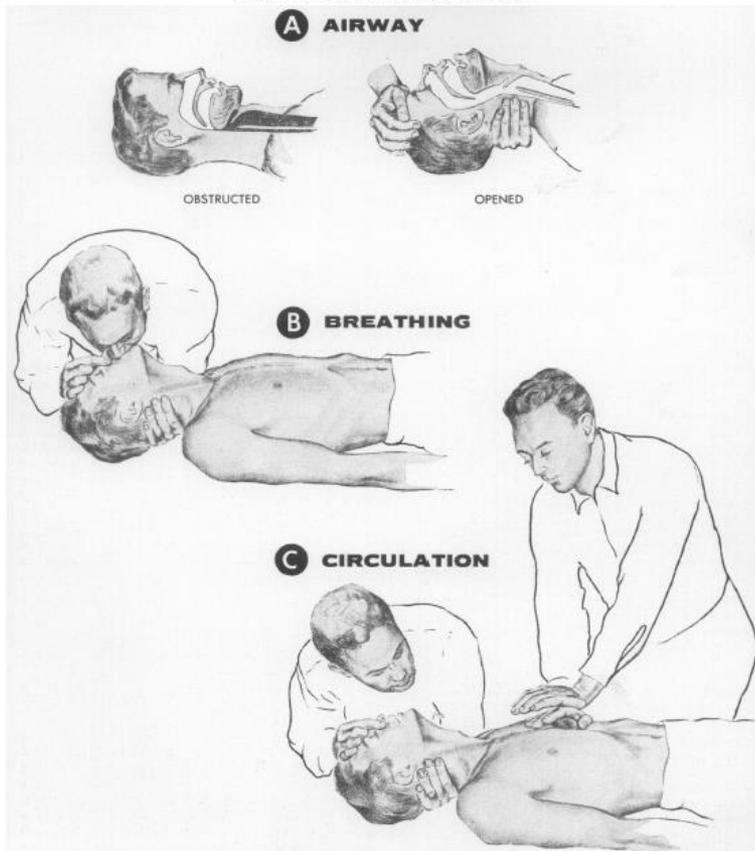
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Cardiac resuscitation after cardiac arrest or ventricular fibrillation has been limited by the need for open thoracotomy and direct cardiac massage. As a result of exhaustive animal experimentation a method of external transthoracic cardiac massage has been developed. Immediate resuscitative measures can now be initiated to give not only mouth-to-nose artificial respiration but also adequate cardiac massage without thoracotomy.

J.A.M.A. 1966

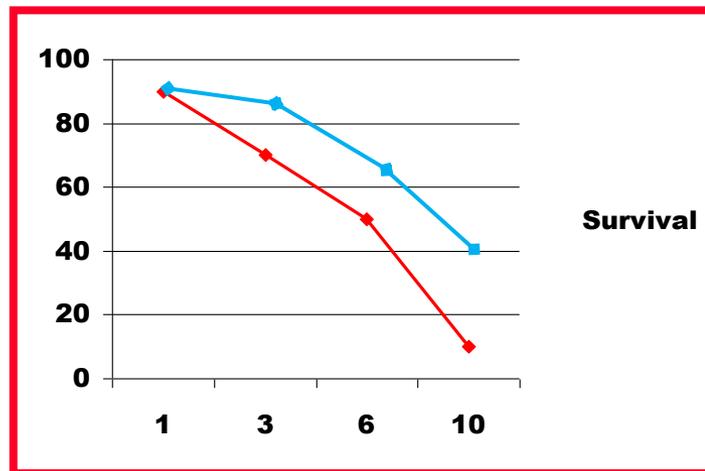
Heart-Lung Resuscitation

National Academy of Sciences—National Research Council



DEFIBRILLATION AND TIME

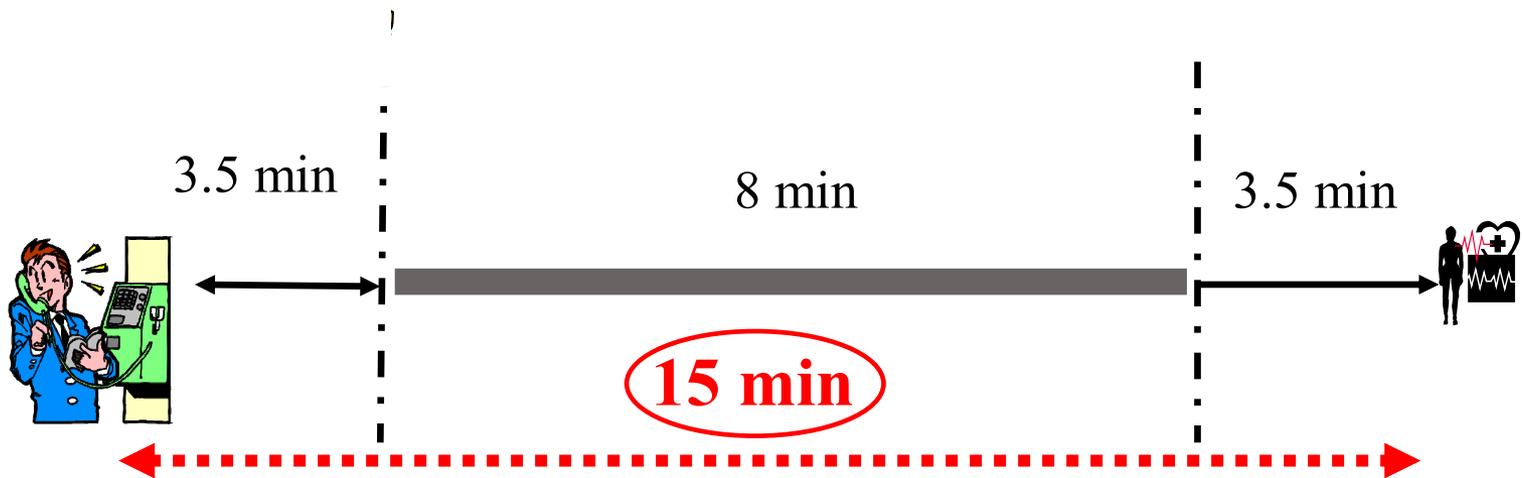
- Approximately 50% survival after 5 minutes
- Survival reduced by 7% to 10% per minute (if no CPR)
 - Rapid defibrillation is *key*
 - CPR prolongs VF, slows deterioration



Minutes: collapse to 1st shock

Defibrillation and Time

SURVIVAL 0-5%





1966

-

2016



ABC

Adrénaline (IC. IT)
Isoprénaline
Calcium
Bicarbonate
Atropine
Xylocaïne
Bretylum
Procainamide

CAB

Adrénaline (IV/ IO)
Amiodarone (Lidocaïne)



2020 REINFORCE

- ✓ Public-Access Defibrillation
- ✓ Dispatcher Recognition of Cardiac Arrest
- ✓ Dispatcher Instruction in CPR

GUIDELINES

Systems of Care



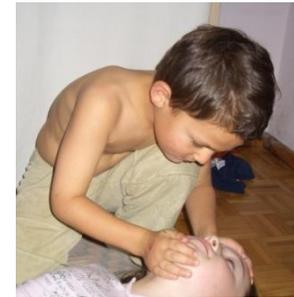
BLS



19.... – 2005

A-B-C

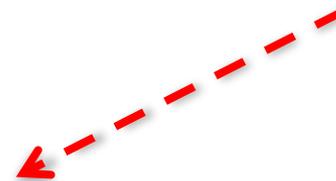
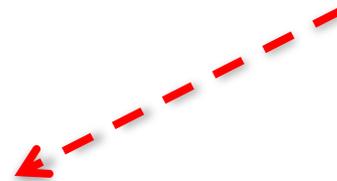
A



B



C



BI



Hands-Only CPR



Join a Nation of Lifesavers™ today.

20

C

A

E

TWO STEPS TO SAVE A LIFE

1 Call 911



2 Push hard and fast in the center of the chest



PR for
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BLS PRO

C-A-B



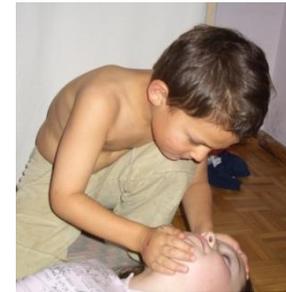
2020

(Unchanged/Reaffirmed):

It may be reasonable to use audiovisual feedback devices during CPR for real-time optimization of CPR performance.

Why: A recent RCT reported a 25% increase in survival to hospital discharge from IHCA with audio feedback on compression depth and recoil.

A



B



C

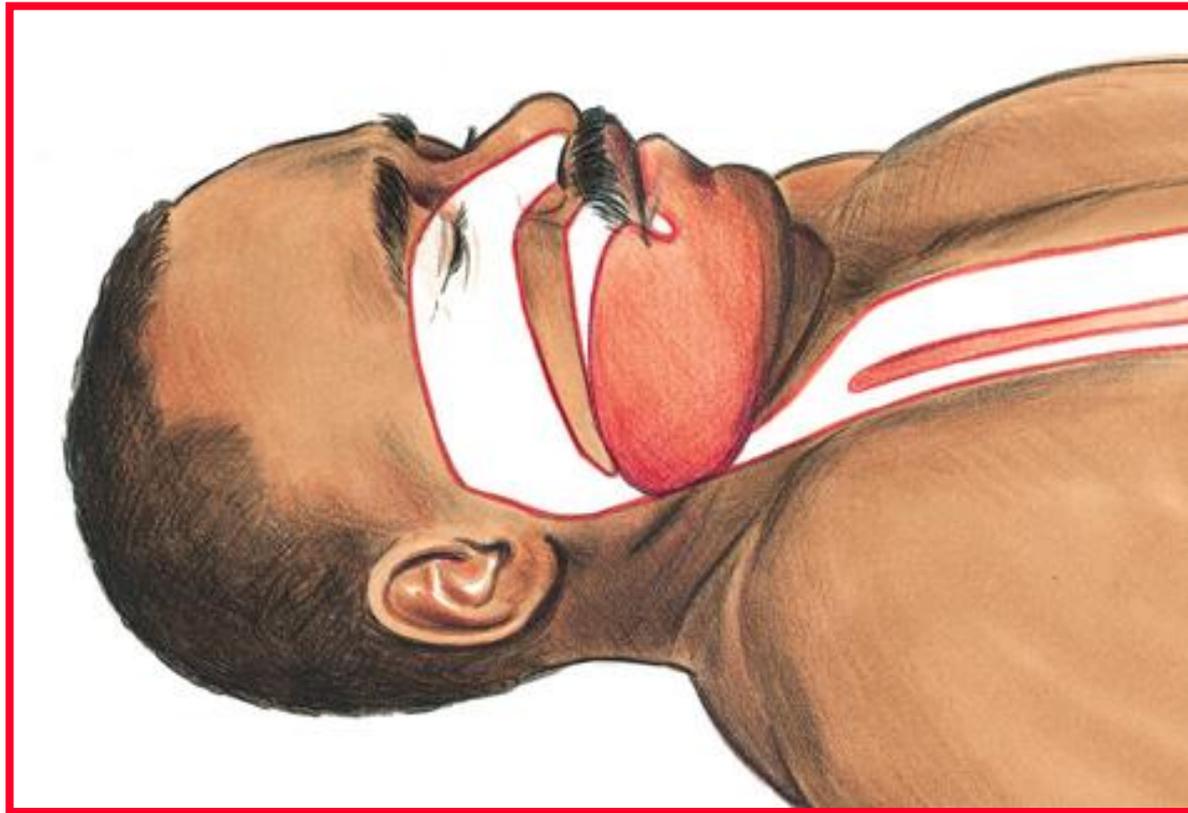


Max10 s.

A

AIRWAY OBSTRUCTION

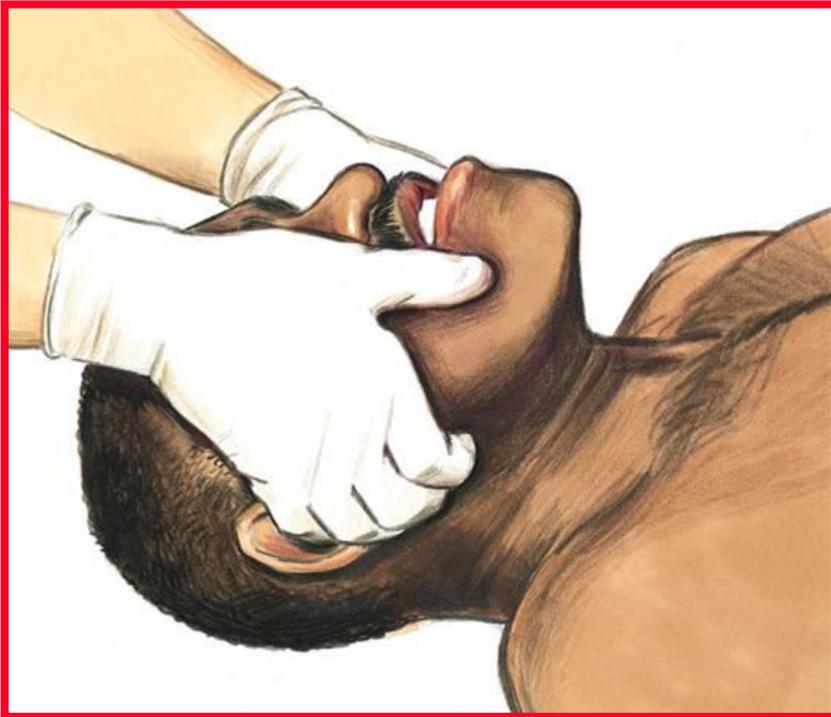
Most common cause: tongue and/or epiglottitis



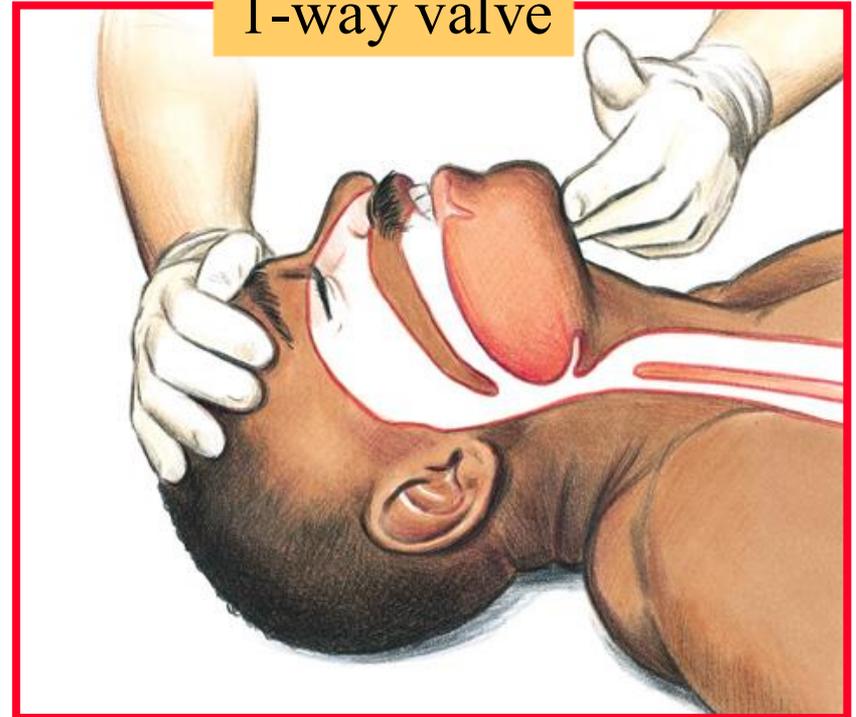
A

OPENING THE AIRWAYS

Jaw thrust



Head tilt–chin lift



B VENTILATION



- 2017 Angleterre masque laryngé (4868)/tube ET 44
- 2017 USA tube laryngé (1505)/ tube ET(1499) survi

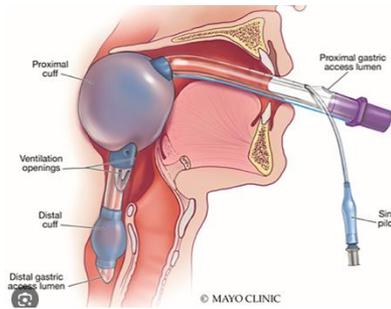
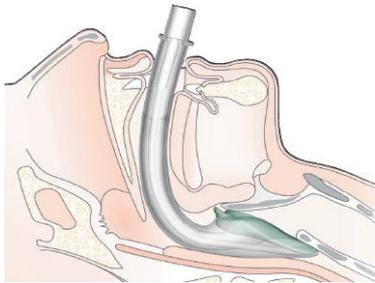
Hospital Cardiac Arrest and

pared with those not intubated:



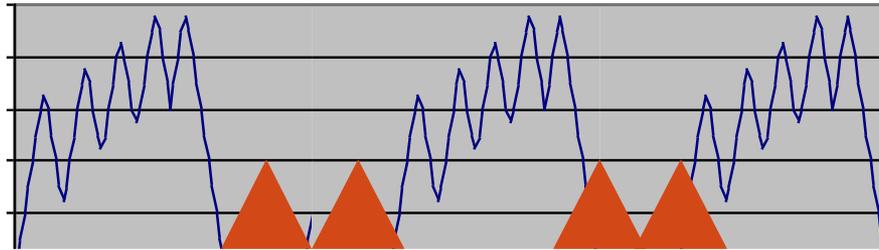
B

VENTILATION





5 / 2



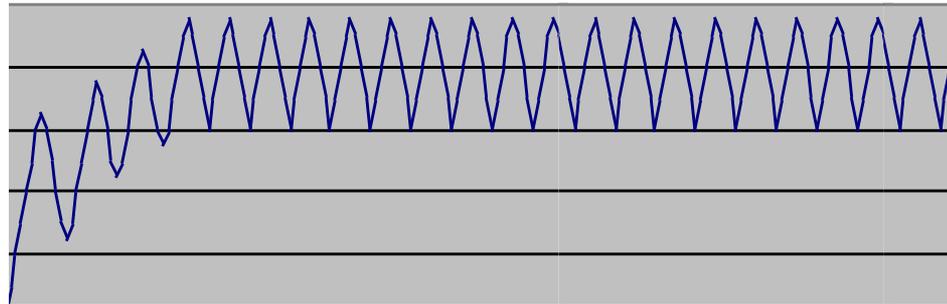
15 / 2 (2000)

30 / 2 (2005)

(2010)

(20...)

(2025)



do not interrupt

- The evidence does **not demonstrate a benefit with the use of mechanical piston devices for chest compressions versus manual chest compressions** in patients with cardiac arrest. Manual chest compressions remain the standard of care for the treatment of cardiac arrest, but mechanical piston devices may be a reasonable alternative for use by properly trained personnel (**Class IIb, LOE B-R**).



GUIDELINES

MCE

Should your office be equipped with a defibrillator ?



Défibrillateur
Defibtech Lifeli...

1450.37 CHF

Betriebsapothe...
+ 9.00 CHF de ...



Zoll Défibrillateur
automatique A...

1675.55 CHF

DocCheckSho...
+ 9.67 CHF de ...



Philips Heartstart
HS1 | Gratis...

1491.78 CHF

AEDverkauf.ch
🚚 Gratuite

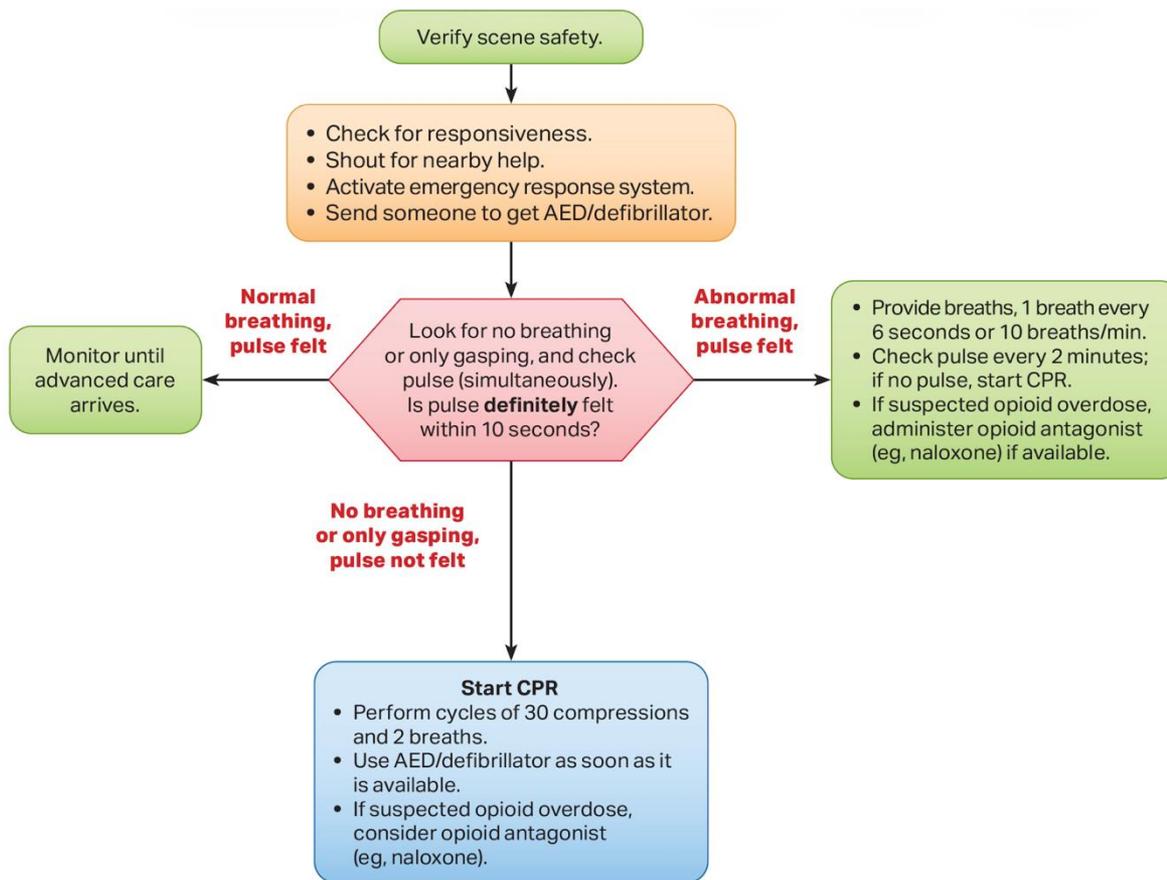


Philips DAE
HeartStart HS1...

1449.62 CHF †...

DocCheckSho...
+ 9.67 CHF de ...

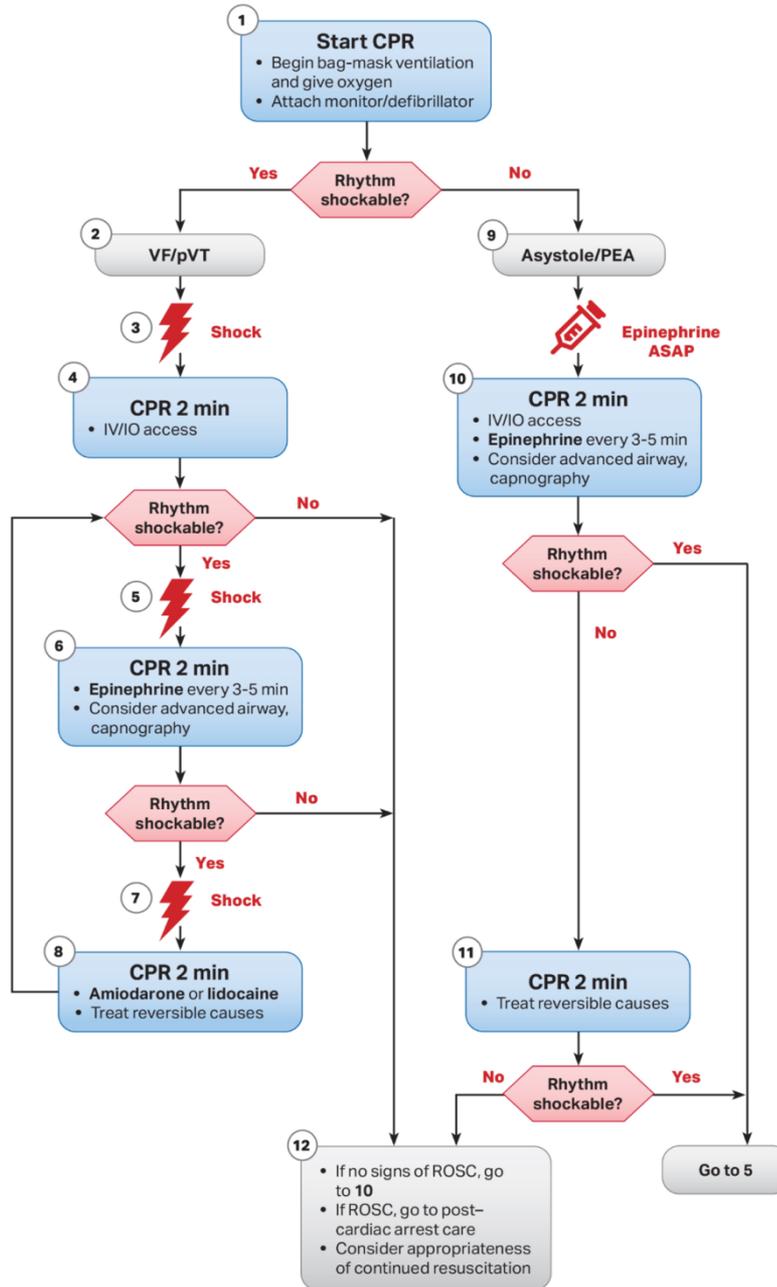
BLS -AED



*If signs of puberty, treat as adult.

ACLS

CPR includes cardiopulmonary resuscitation; ET, endotracheal; IO, intravenous; PEA, pulseless electrical activity; pVT, pulseless ventricular tachycardia; and VF, ventricular fibrillation.



High-Quality CPR

- Push hard (at least 2 inches [5 cm]).
- Push fast (100-120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.
- Avoid excessive ventilation.
- Change compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, use 30:2 compression-ventilation ratio.
- If advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions.
- Continuous waveform capnography
 - If ETCO₂ is low or decreasing, reassess CPR quality.

Shock Energy for Defibrillation

- Biphasic:** Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.
- Monophasic:** 360 J

Drug Therapy

- Epinephrine IV/IO dose:** 1 mg every 3-5 minutes
- Amiodarone IV/IO dose:**
 - First dose: 300 mg bolus
 - Second dose: 150 mg
 or
- Lidocaine IV/IO dose:**
 - First dose: 1-1.5 mg/kg
 - Second dose: 0.5-0.75 mg/kg

Advanced Airway

- ET intubation or supraglottic advanced airway
- Continuous waveform capnography or capnometry to confirm and monitor ET tube placement

Reversible Causes

- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypo-/hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary

PEDIATRIC BASIC LIFE SUPPORT: 2025

1. Respiratory conditions remain the major cause of cardiac arrest in infants and children and, as such, appropriate interventions to support ventilation and oxygenation should be initiated quickly.
2. For out-of-hospital cardiac arrest (OHCA) in infants and children, providing breaths in addition to chest compressions improves survival; thus, lay rescuers are encouraged to provide breaths if able and willing.
3. A respiratory rate of 20 to 30 breaths per minute is recommended for infants and children who are (a) receiving cardiopulmonary resuscitation (CPR) with an advanced airway in place or (b) receiving breaths and have a pulse.
4. For infants with severe foreign-body airway obstruction (FBAO), repeated cycles of 5 back blows alternating with 5 chest thrusts is recommended. Abdominal thrusts are not recommended in infants.
5. For children with severe FBAO, repeated cycles of 5 back blows alternating with 5 abdominal thrusts is recommended.
8. For infants, the recommended compression techniques include using either the 1-hand technique or the 2 thumb-encircling hands technique. If the rescuer cannot physically encircle the chest, it is recommended to compress the chest with the heel-of-1-hand technique. The use of 2 fingers along the sternum was eliminated due to ineffectiveness in achieving proper depth.

EQUIPEMENT 2024

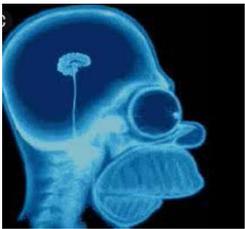
BLS



BLS-AED



ACLS



+



+



SURVIE

DANKE.....MERCII

