Teaching BLS to School Children



University of Split
School of Medicine

Universitas Studiorum
Spalatensis
Facultas Medica

Julije Meštrović
School of Medicine Split
PICU, University Hospital of Split

JEDINICA INTENZIVNOG LIJEČENJA DJECE
PAEDIATRIC INTENSIVE CARE UNIT
CLINICAL HOSPITAL SPLIT
KLINIČKA BOLNICA SPLIT

Split







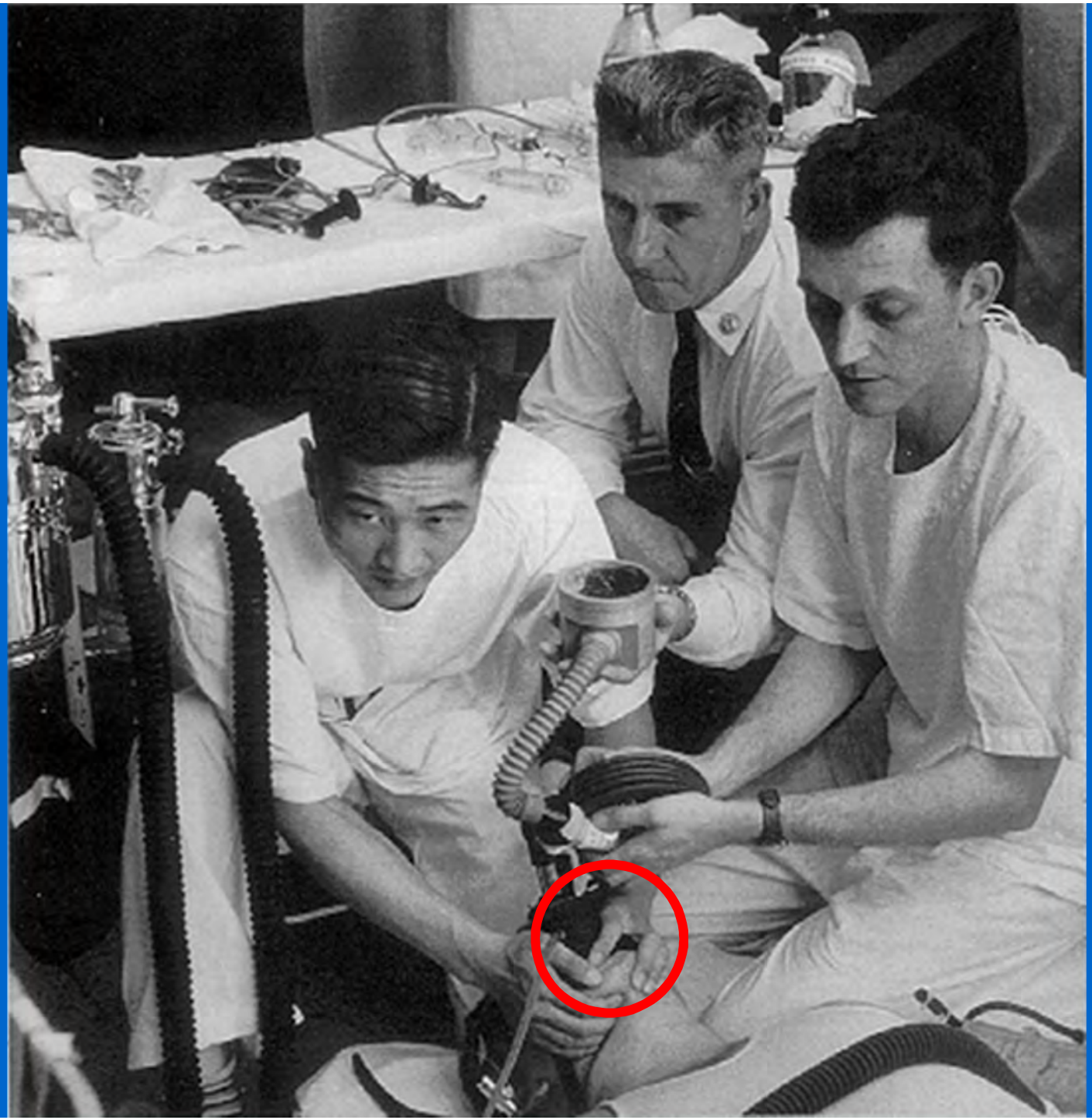






Peter Safar





A irway



B reathing

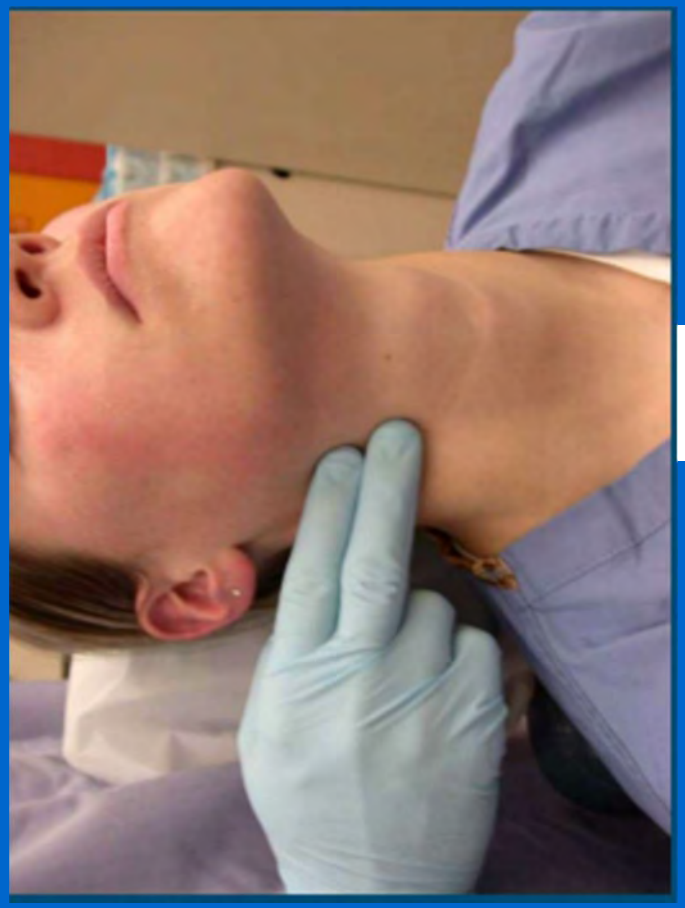


Check



Rescue breaths

C irculation



Pulse check



Chest compressions

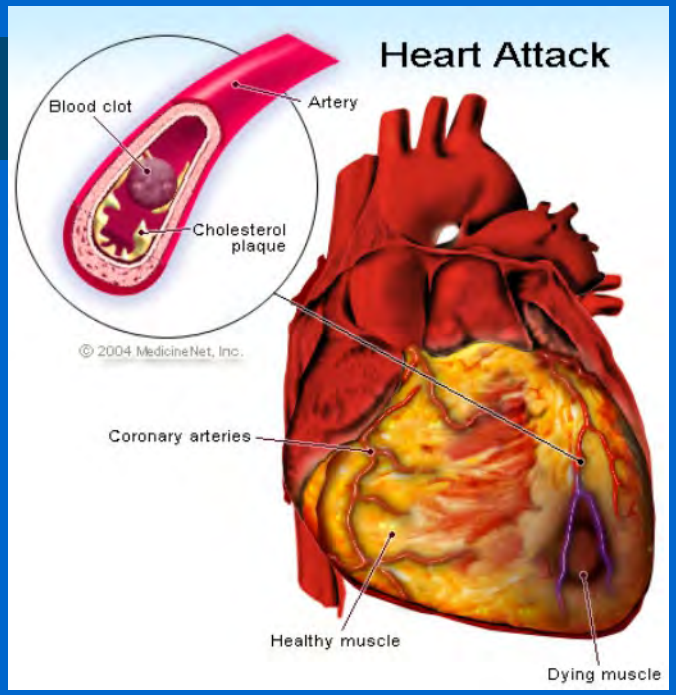
Causes of cardiac arrest

Heart disease

Respiratory failure

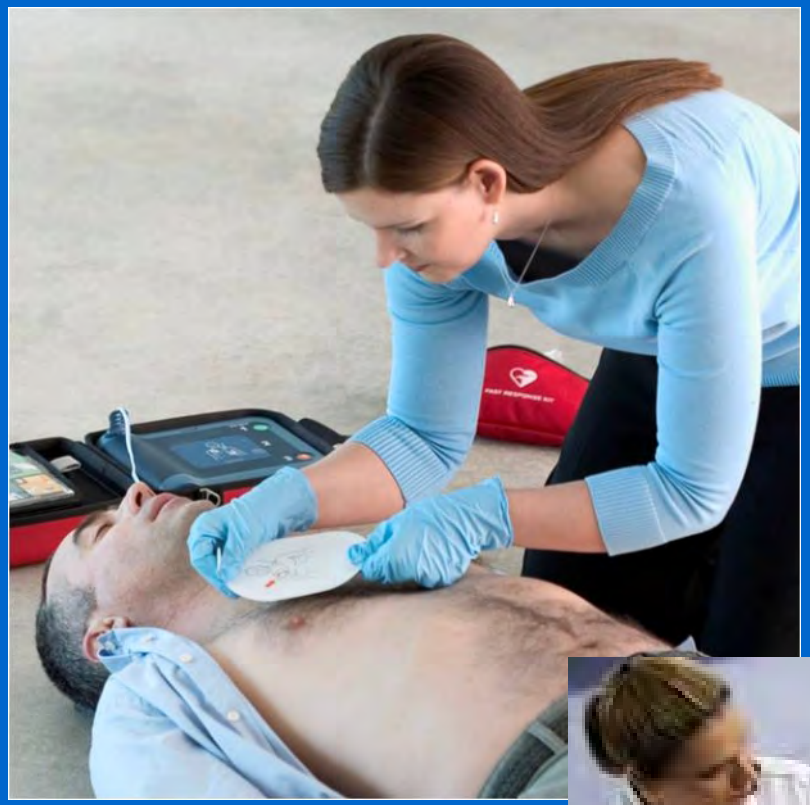
Circulatory failure (shock)

ADULTS: heart disease



EKG: ventricular fibrillation





AED



BLS

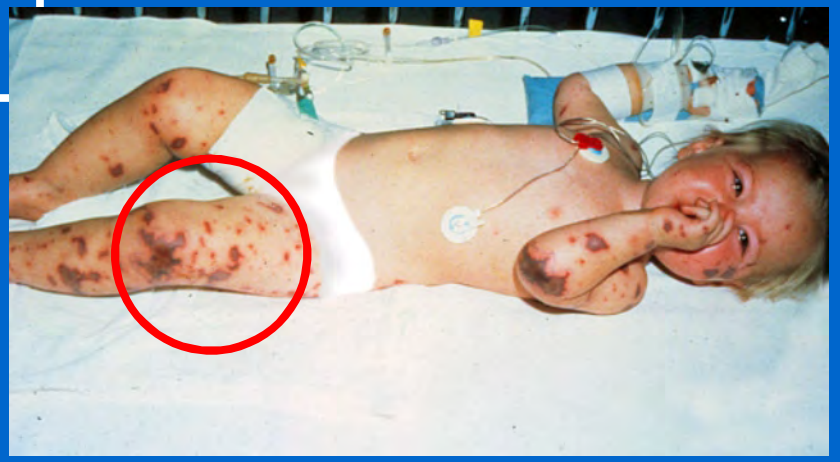
Causes of cardiac arrest in children



Cardiac arrest in children



Cardiac Arrest

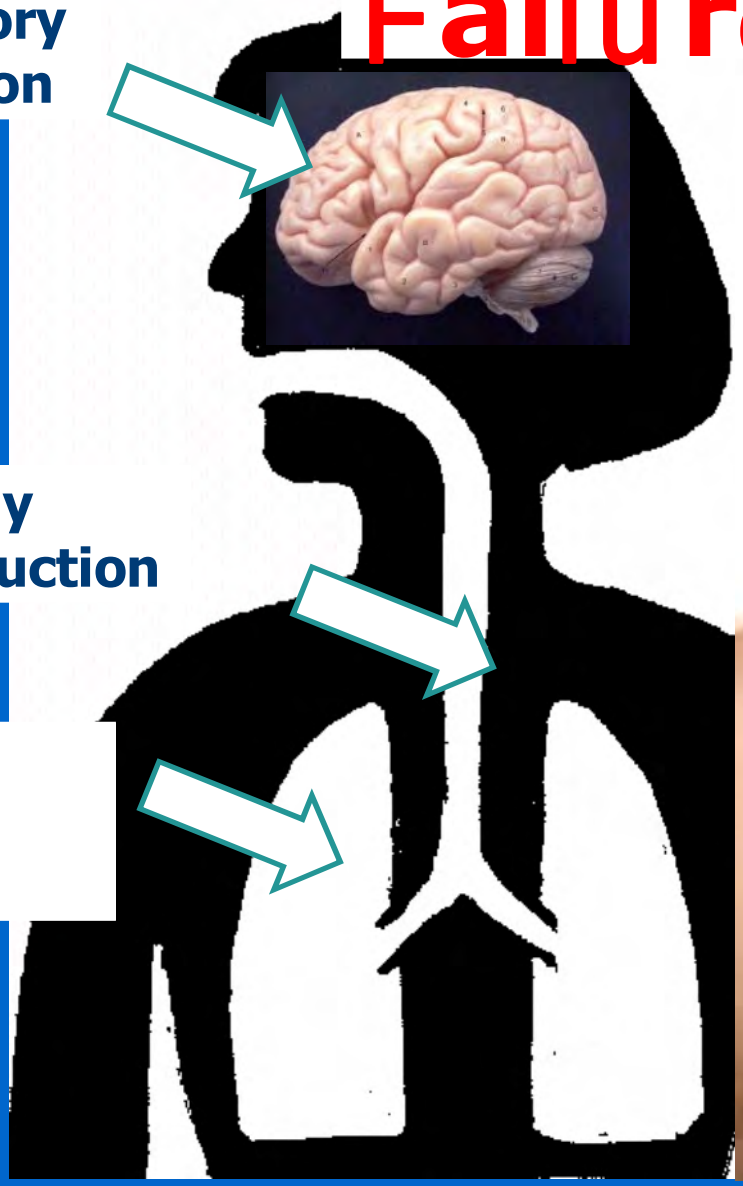


Respiratory Failure

Respiratory Depression

Airway Obstruction

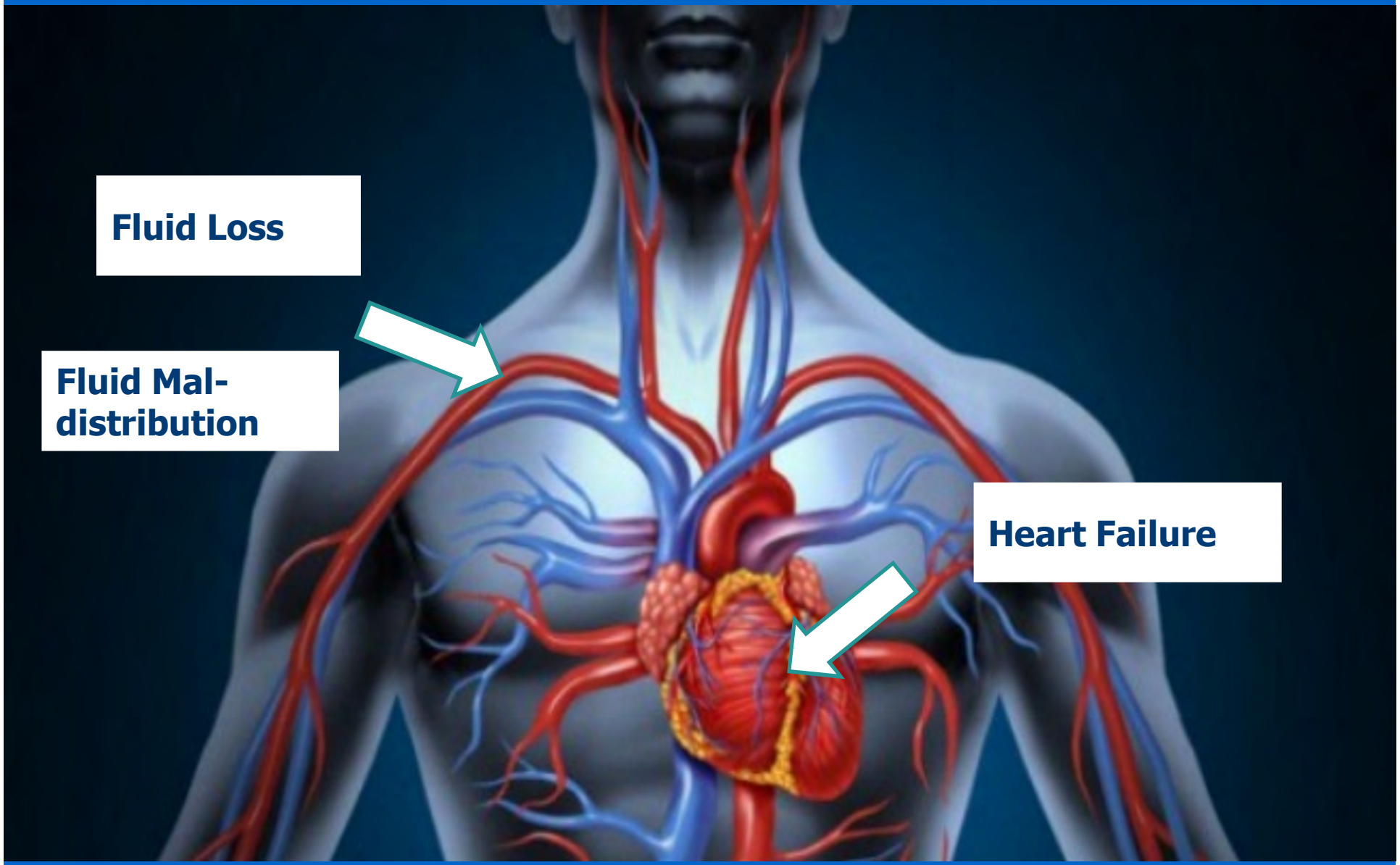
Alveolar Failure



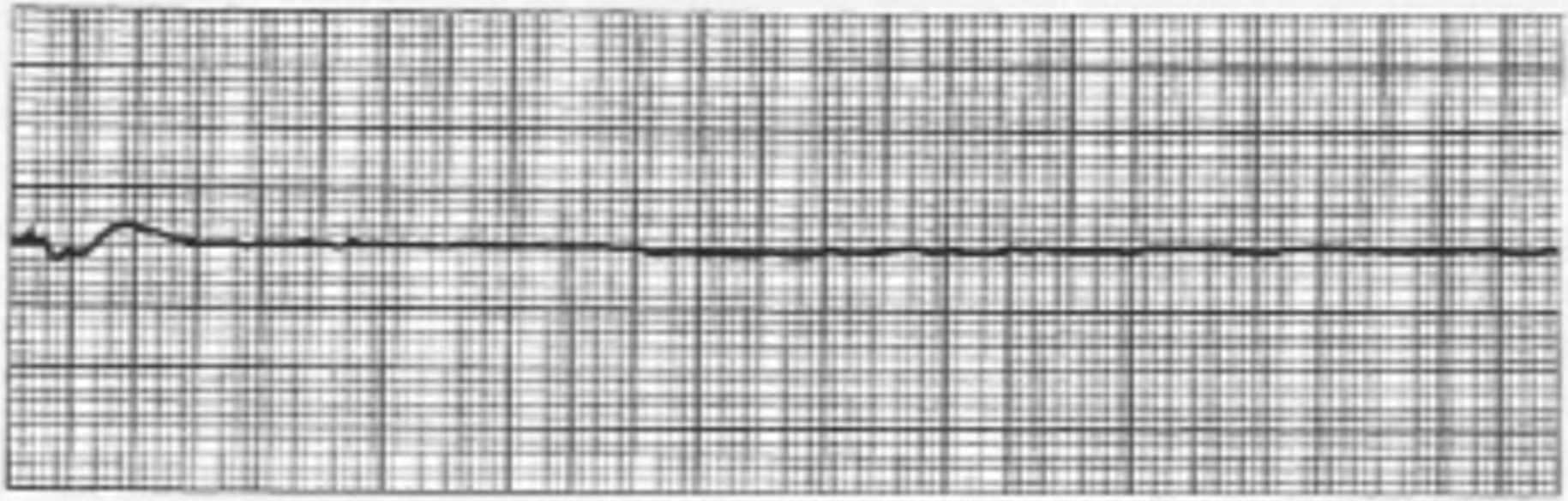


Chest Wall Failure

Circulatory Failure



Arrest EKG rhytm



Survival rates of sudden cardiac arrest victims
who receive early CPR
are significantly increased
compared to survival rates of those
who receive late CPR

Early CPR: bystander initiated CPR

Late CPR: EMS initiated CPR

Most laypeople
are unlikely to perform CPR

Inadequate knowledge

Mouth to mouth ventilation to a stranger

Willingness to perform CPR to children is high

Many children do not receive resuscitation because potential rescuers fear causing harm

CPR guidelines have been simplified

To improve retention
Increase its appeal to the lay rescuer



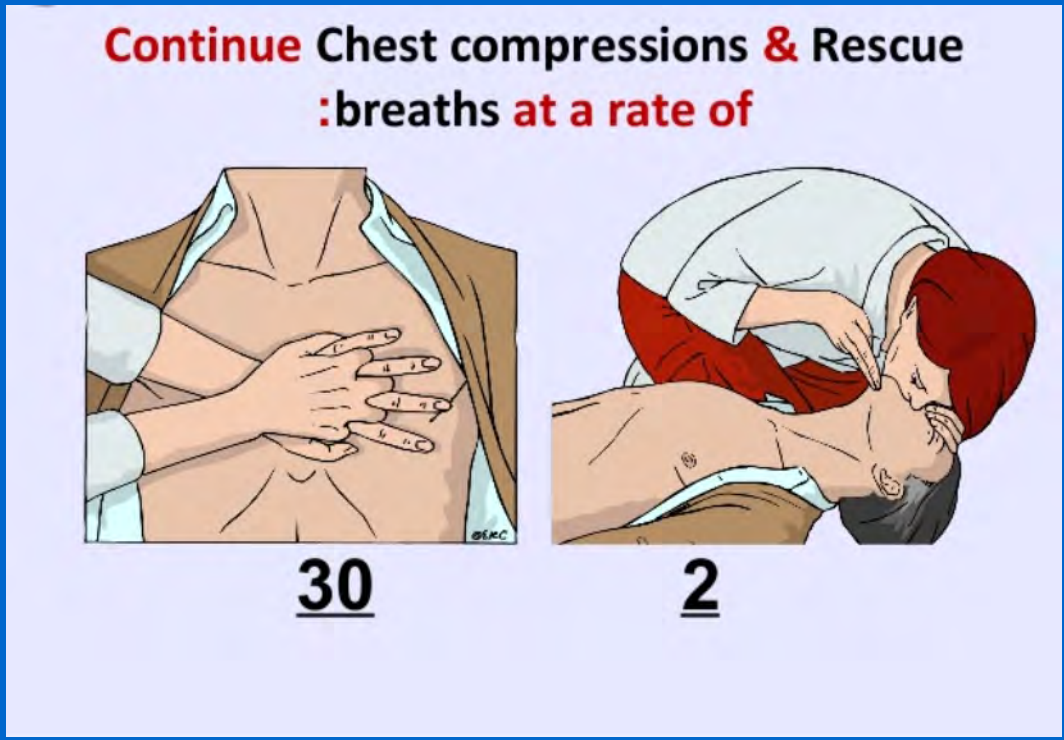
International Liaison Committee on Resuscitation (ILCOR)

Every 5 years
2015. Guidelines

CHILDREN: chest compressions : ventilations

Lay rescuers 30 : 2

The same as the adult guidelines



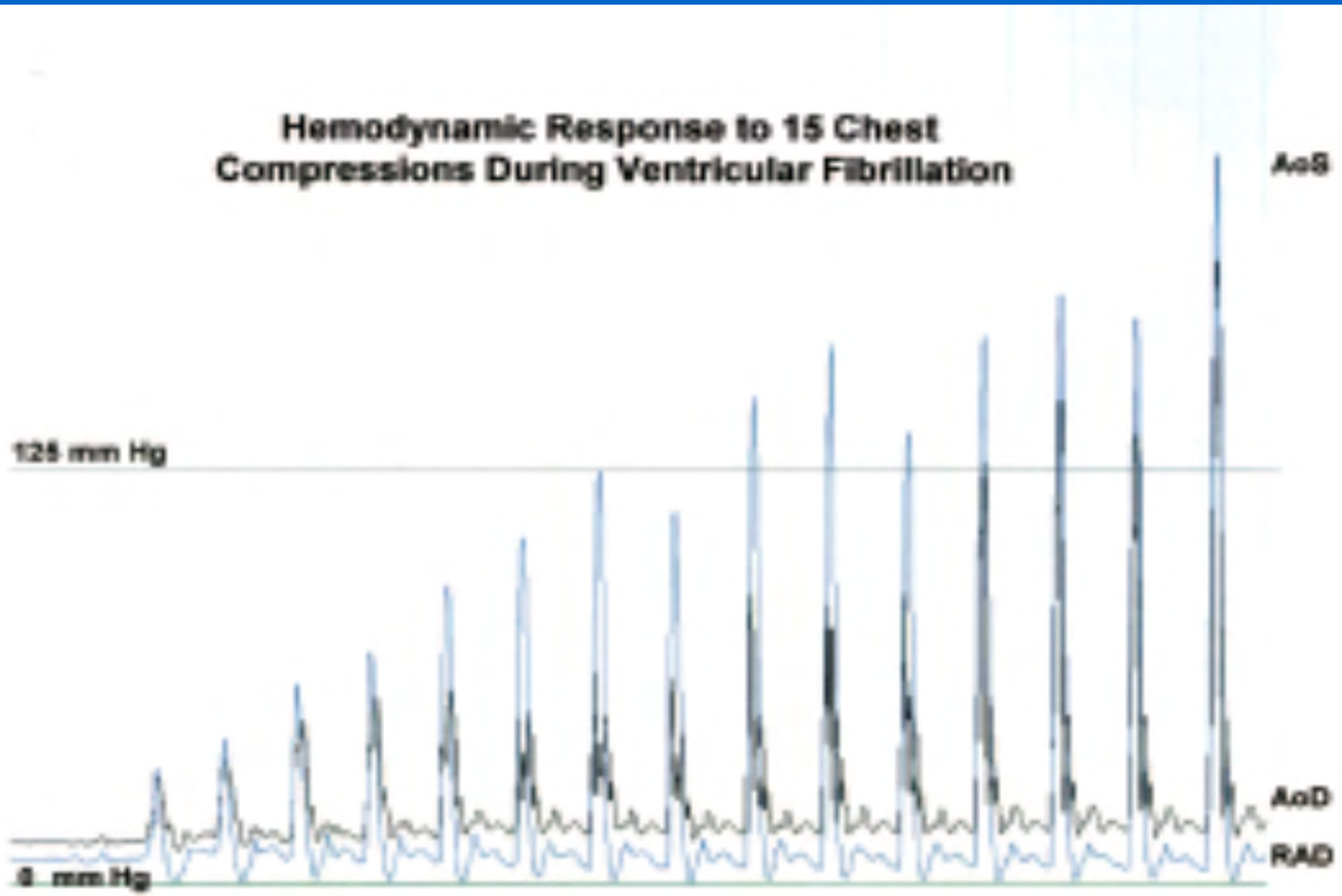
Rescuers who are unable or unwilling to provide mouth-to-mouth ventilation should be encouraged to perform at least compression-only CPR



Single trained rescuer	30 : 2
2 trained rescuers	15 : 2






Hemodynamic Response to 15 Chest Compressions During Ventricular Fibrillation
AoS
125 mm Hg
AoD
RAD
0 mm Hg


Advanced
Life
Support
Group



Life Support Course for Nurses



JEDINICA INTENZIVNOG LIJEČENJA DJECE
PAEDIATRIC INTENSIVE CARE UNIT
KLINIČKI BOLNIČKI CENTAR SPLIT
UNIVERSITY HOSPITAL OF SPLIT



Medical students


TAJNICE
4G
TAJNICE
4G


THE WORLD'S PREMIER ELECTRONIC MUSIC FESTIVAL
ULTRA
EUROPE
3 MASSIVE DAYS
JULY 11.12.13 2014
SPLIT, CROATIA
WWW.ULTRAEUROPE.COM





Injuries

the leading cause of death
for children
throughout the world





Primary brain injury

Secondary brain injury



AMERICAN ACADEMY OF PEDIATRICS

POLICY STATEMENT

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

Committee on Pediatric Emergency Medicine

Role of Pediatricians in Advocating Life Support Training Courses for Parents and the Public



Children aged **13-14**
performed compressions
as well as adults

Hands-on practice performed
Better CPR than those
in the computer program group

Programme should **not exceed 4 h**

Students' and parents' attitudes toward basic life support training in primary schools

Jasna Petrić[1], Mario Malički[2], Domagoj Marković[2], Julije Meštrović[1],

[1]Department of Pediatrics, University Hospital Split, Split, Croatia

[2]Department of Research in Biomedicine and Health, School of Medicine, University of Split, Split, Croatia

MEDICAL EDUCATION

Croat Med J. 2013;54:376-80

doi: 10.3325/cmj.2013.54.376

Conclusion Our study showed that in Croatia both students in their last two years of primary school and their parents had a positive attitude toward BLS training in primary schools.

Plan of education in elementary schools

Education of professors (educators)
Education of 13 – 14 year-old students

1. Education of students

2. Test

4. Re-evaluation of skills retention after six months



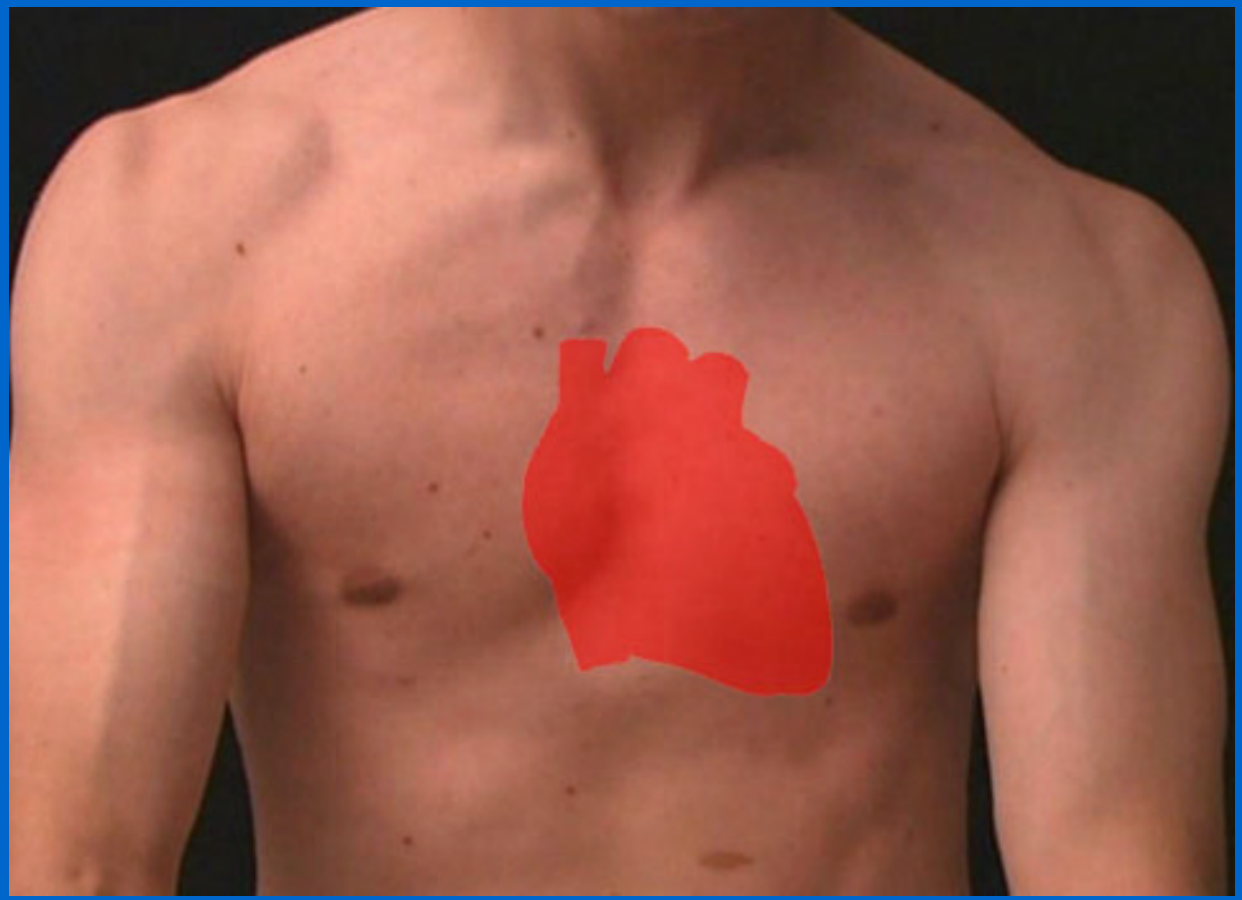
Teaching professors

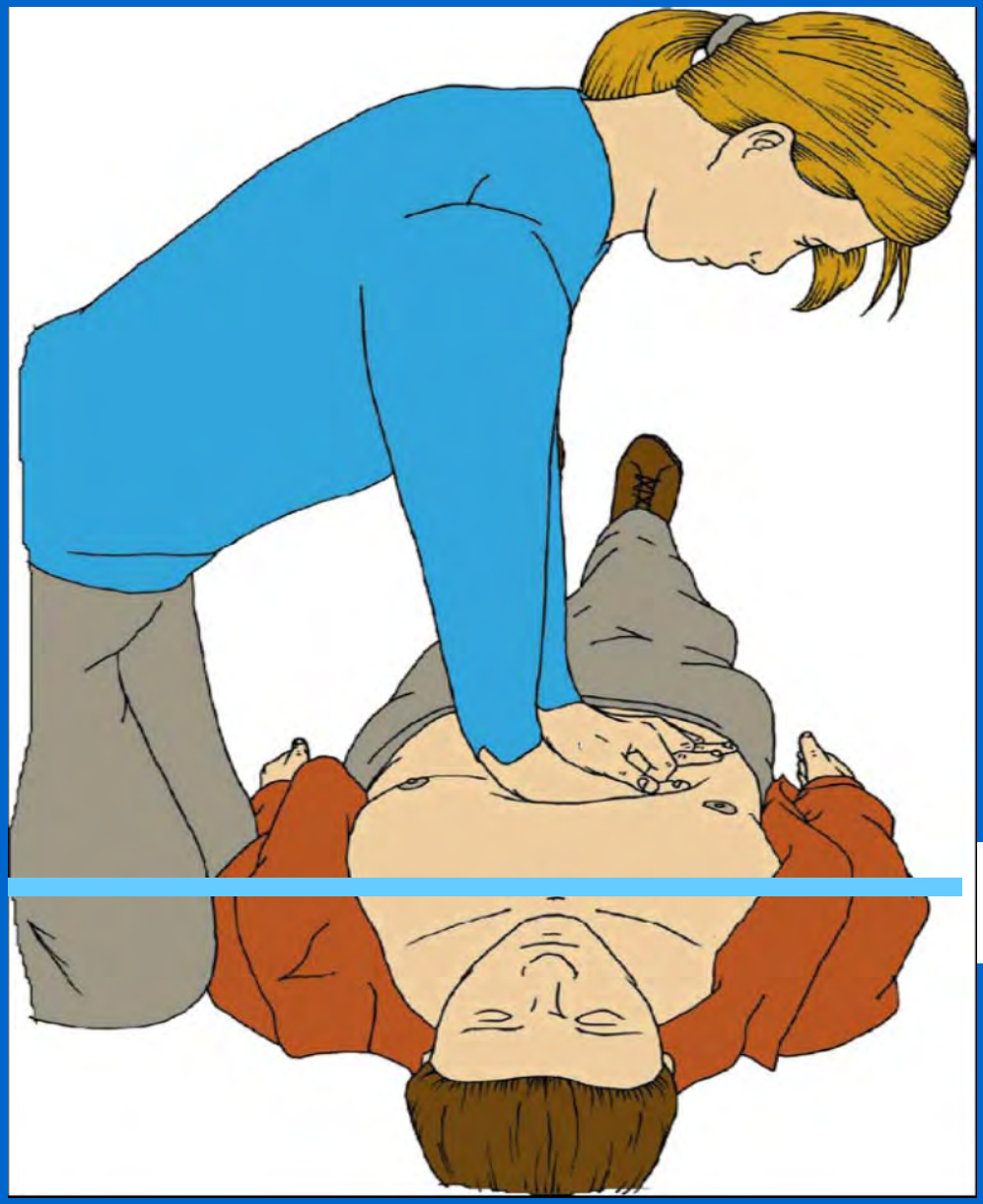


Students trained by their professors

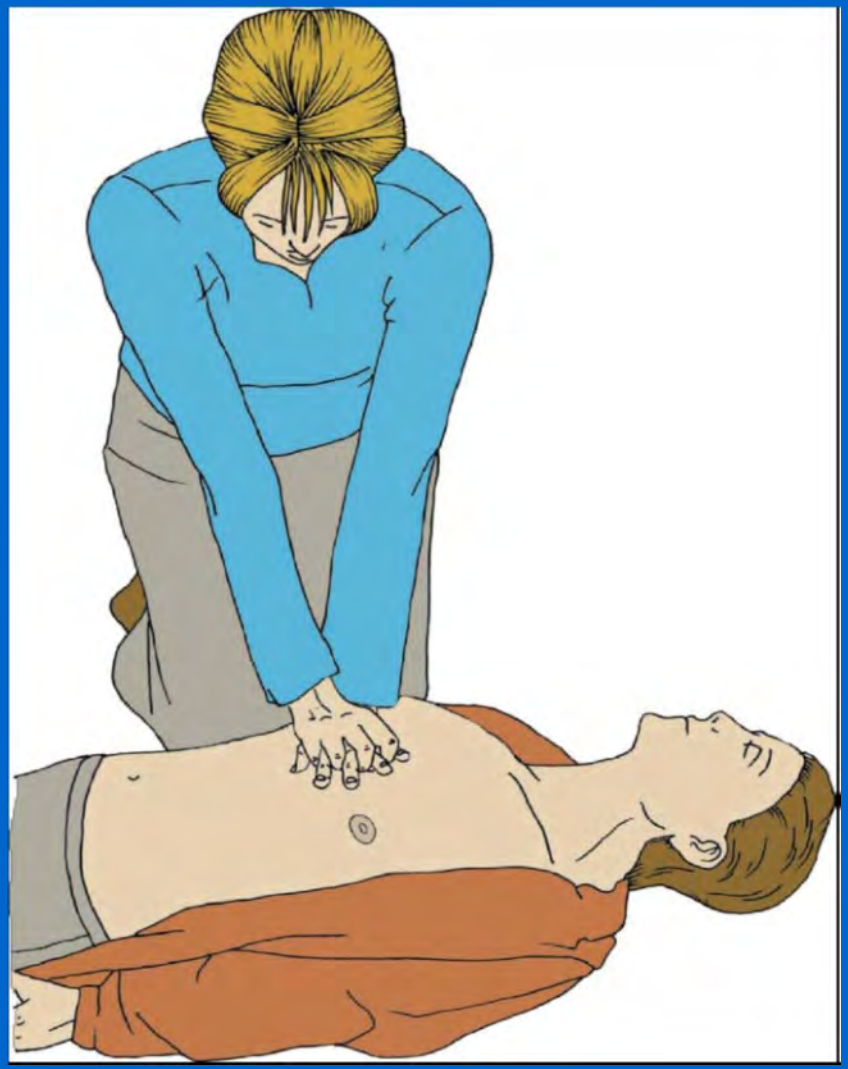



Test chest compressions





depth



in

30 compressions : 2 ventilations





Resuscitation Procedure	Baseline	After 1st education	After 1 month	After 2nd education
	%	%	%	%
Hands position	12	97	77	97
Depth of compressions	5	96	84	98
Rate of compressions	2	93	79	97
CPR ratio	8	99	93	99





Pediatric Intensive Care Unit



Back to school





Andrija Štampar

The first Secretary of WHO



2 years
50 teachers and 4000 students

Thank You for Your attention!

