

Taking the 101 in San Diego: Start CPR at 10:1 and Don't Stop!

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City of San Diego

- 1.3 million
- 400 sq miles
- 850 adult medical arrests/yr

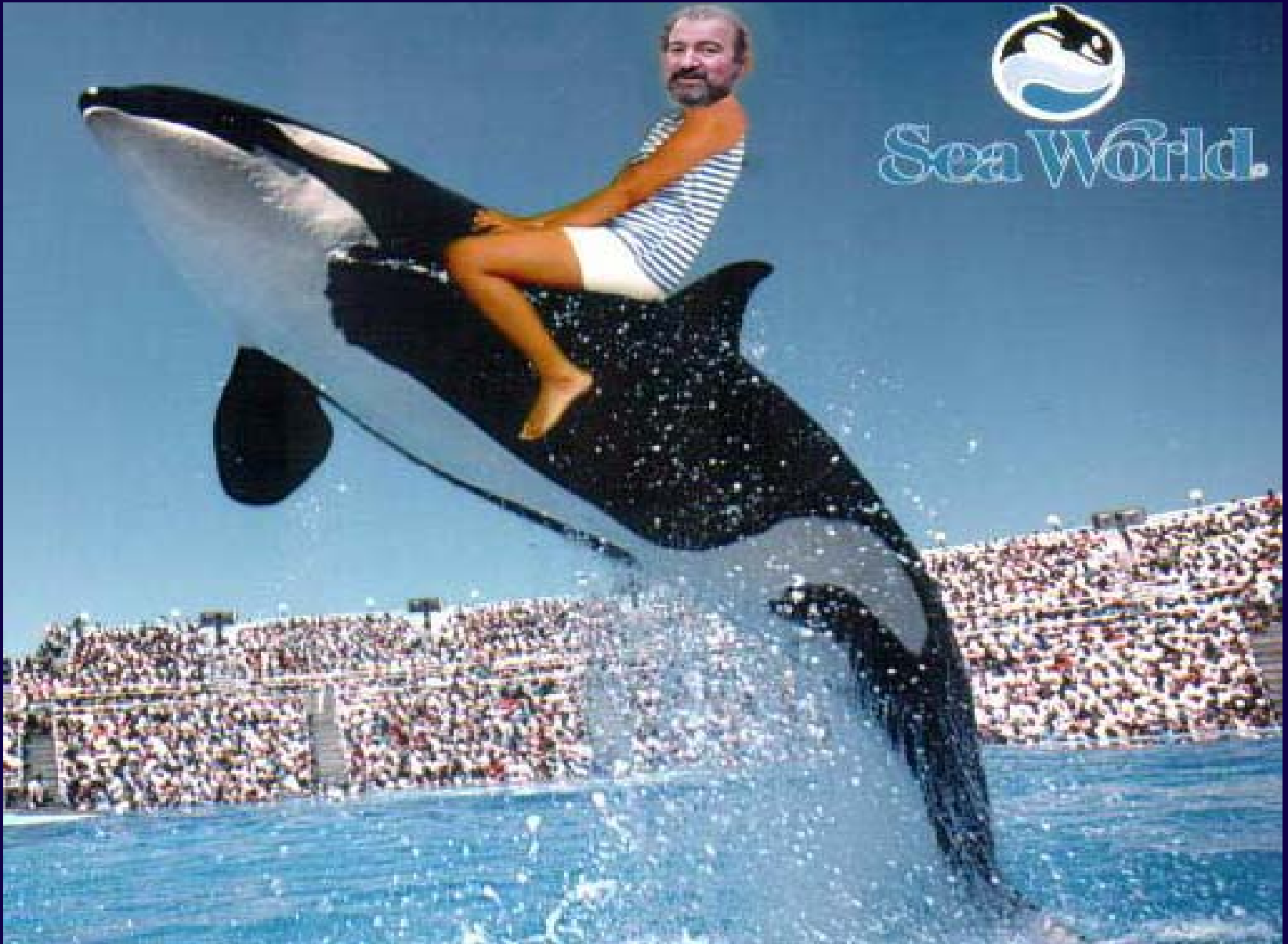


ALS 1st Responder System

- 28 ALS ambulances
- 20 BLS ambulances
- 46 ALS engines
- 12 ALS trucks



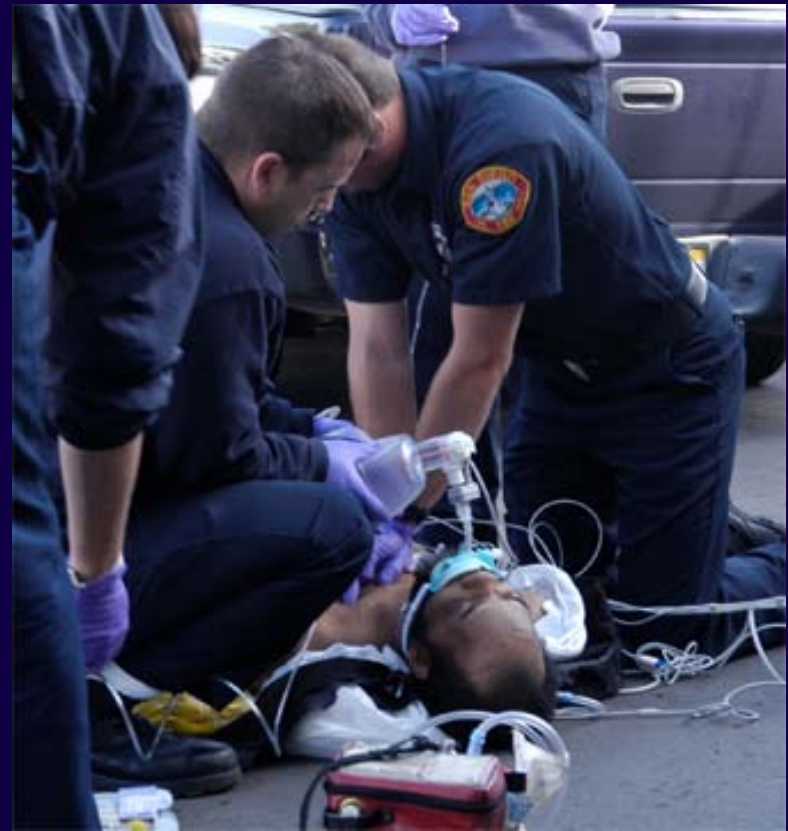




Sea World.

Goals

- **Review how San Diego implemented the 2005 AHA Guidelines**
- **Share preliminary outcome data**



2005 AHA Guidelines

Do:

- 100 compressions/min
- 8-10 ventilations/min
- 30:2 pre-intubation
- 10:1 post-intubation



2005 AHA Guidelines

Don't:

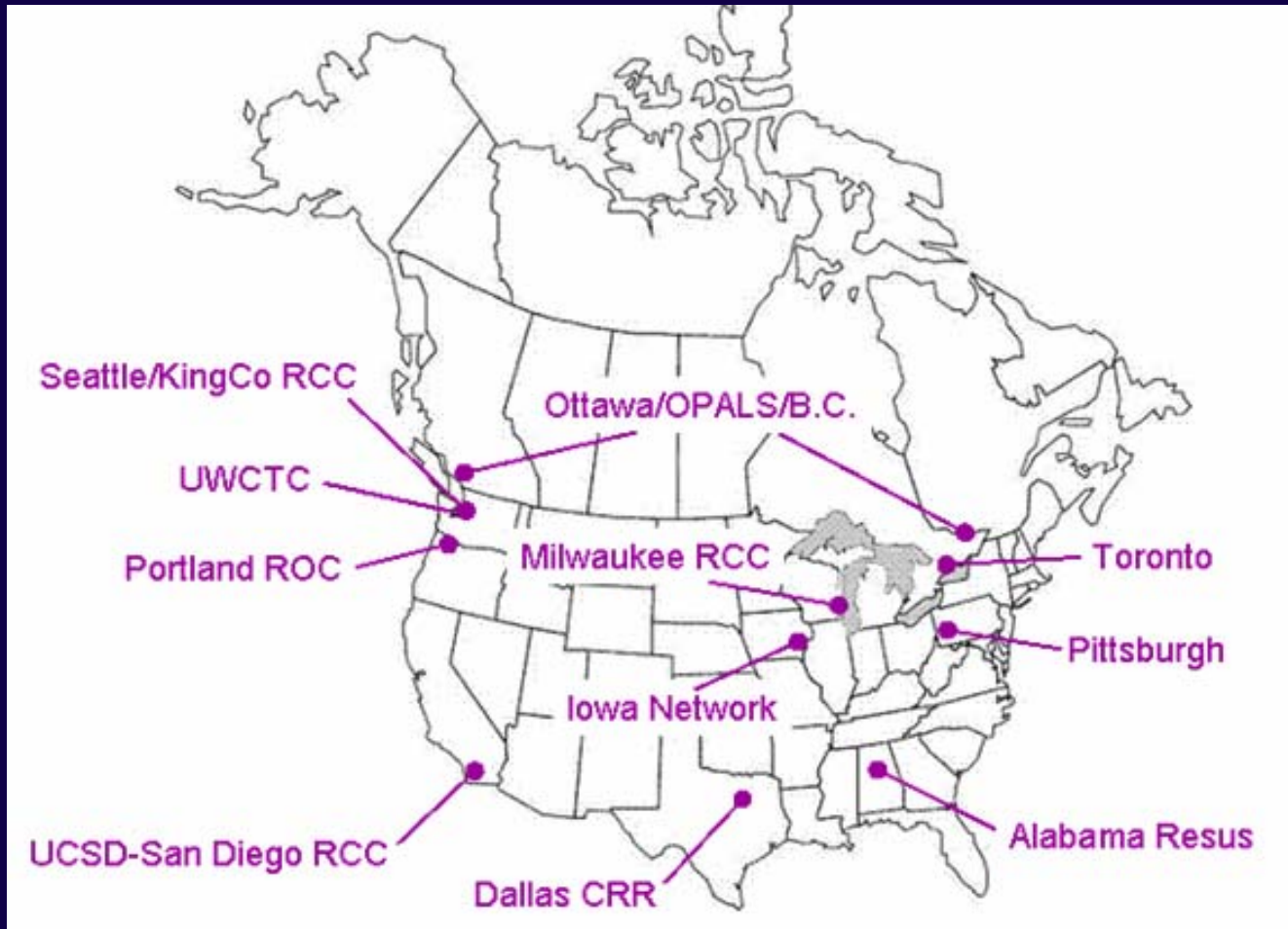
- Stop > 10 sec
- Incompletely release
- Ignore fatigue
- Prioritize intubation
- Hyperventilate







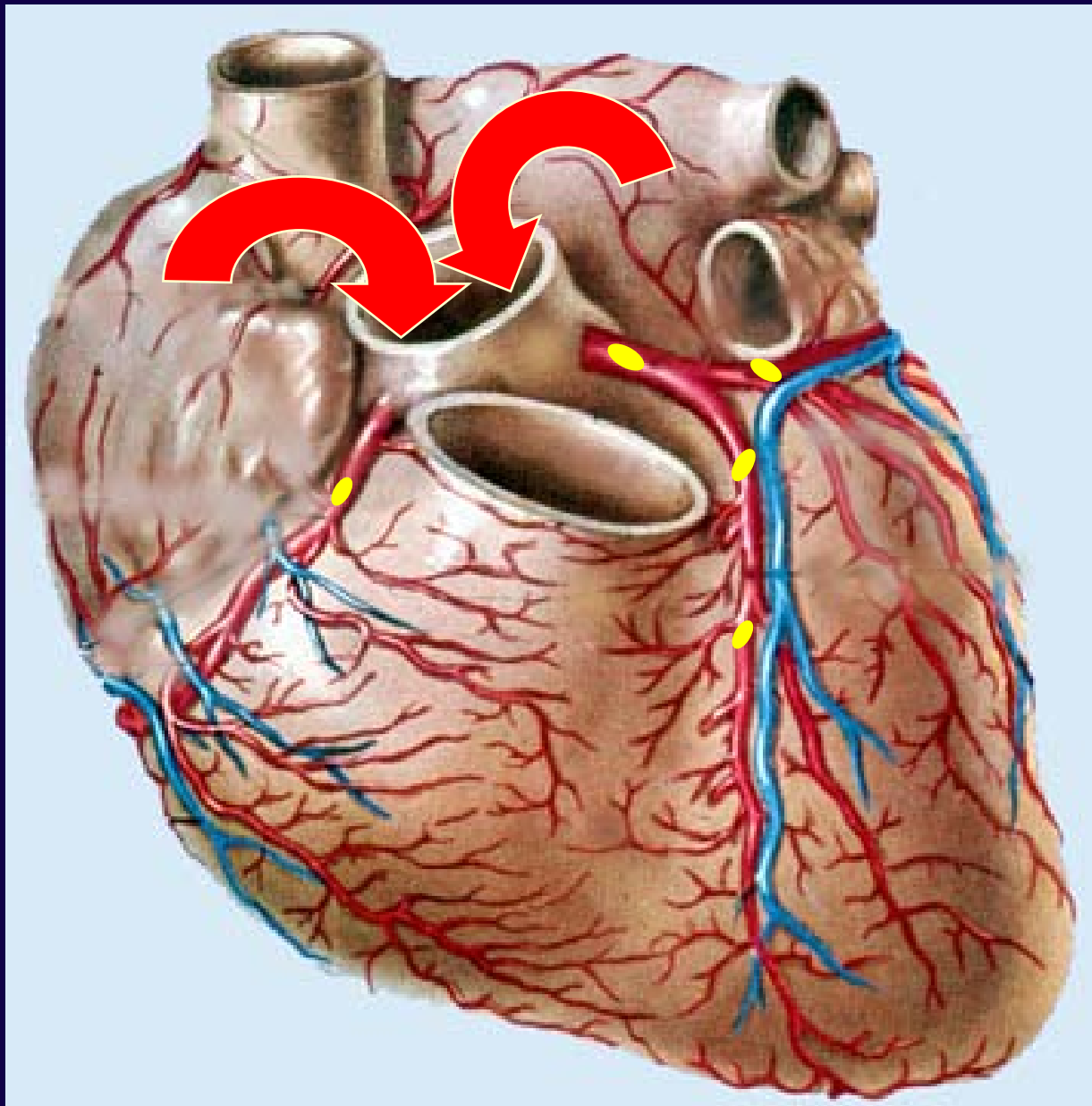
ROC Study Site



Phase 1 – ROC Medic training (March – April 2005)

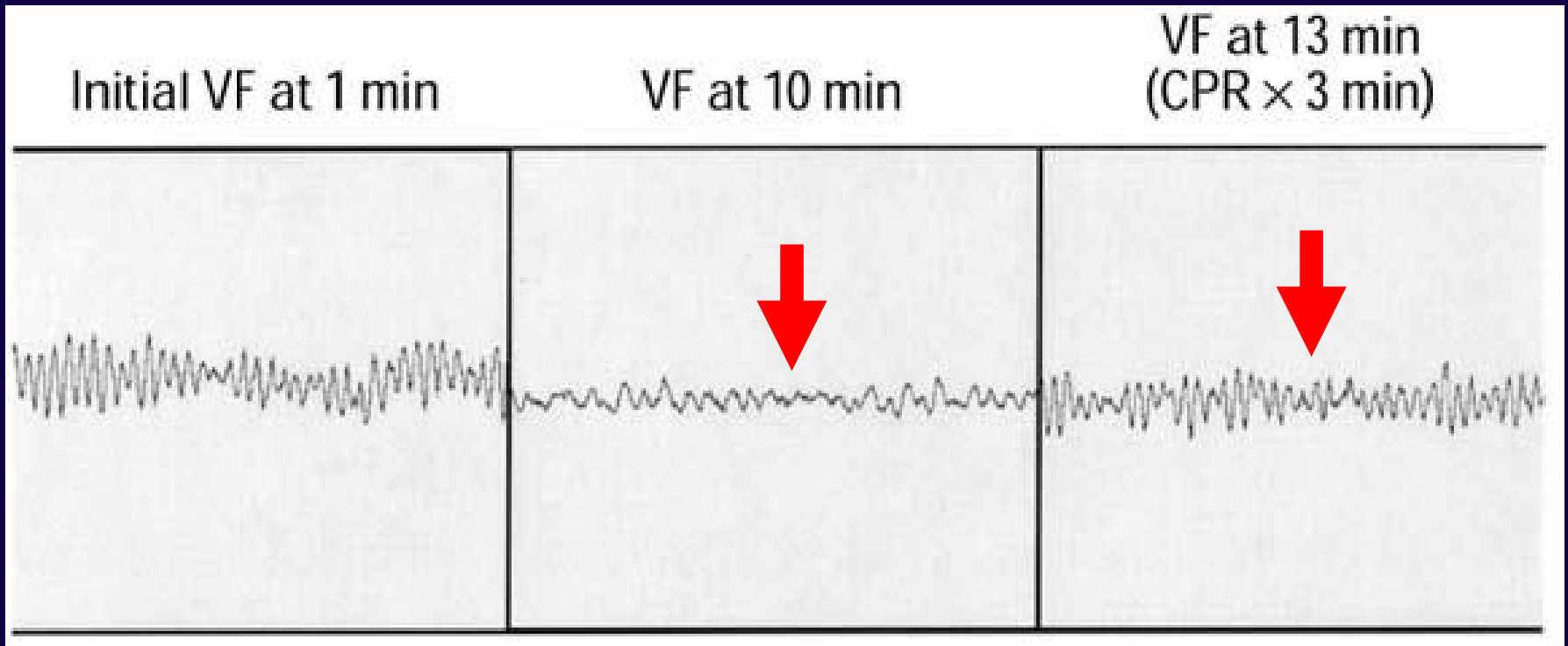
- **Current science**
- **SIM training**
 - **Accelerometers**
 - **Metronomes**
 - **Exhalometers**



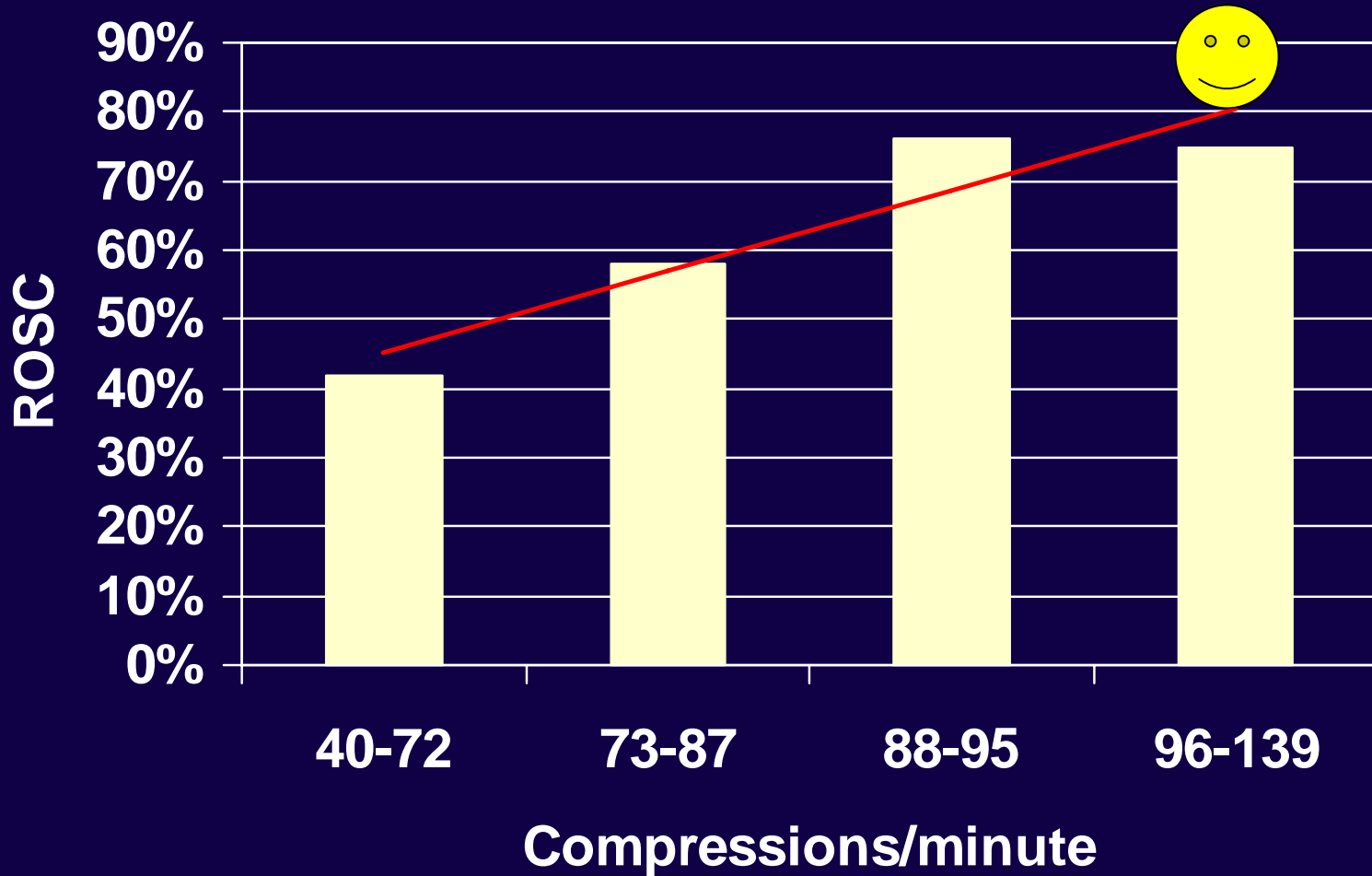




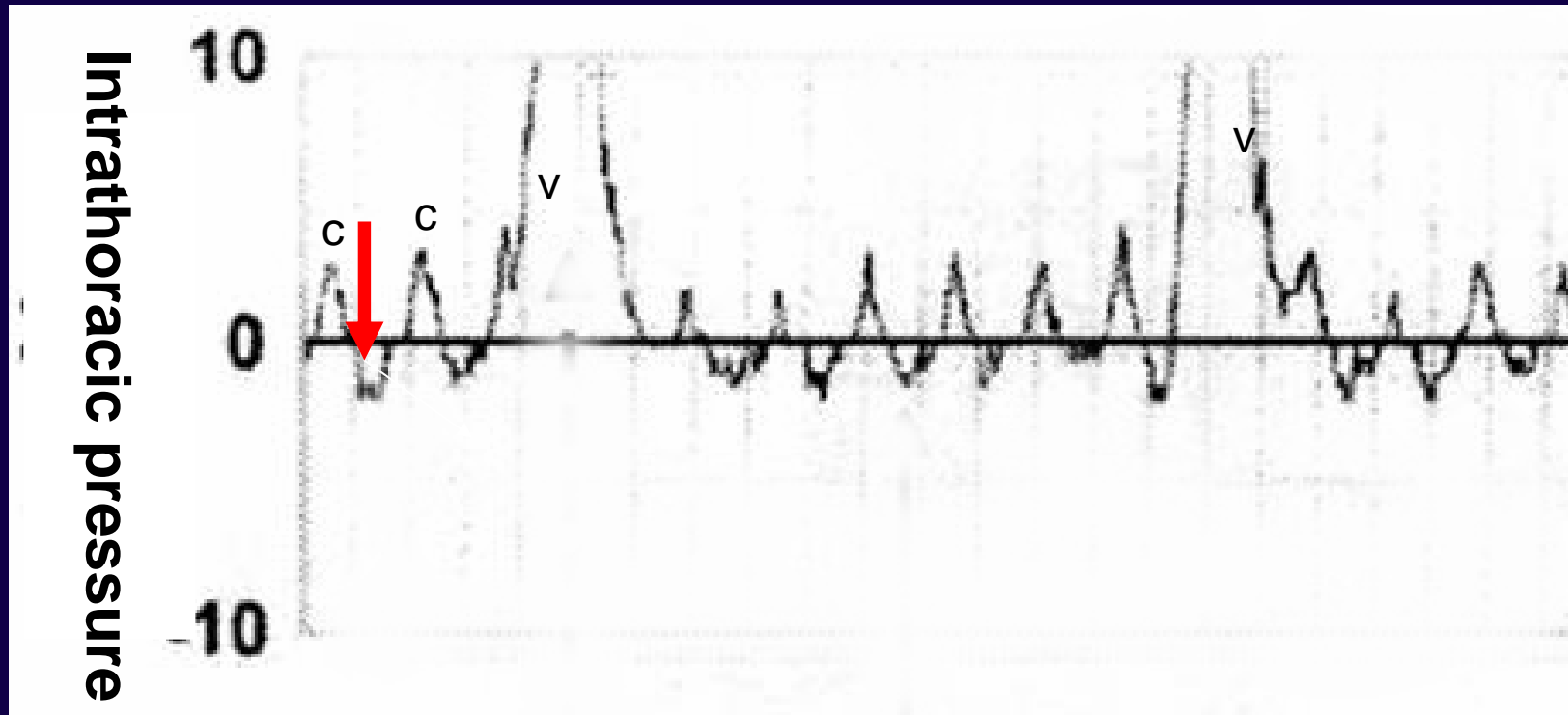
CPR restores myocardium



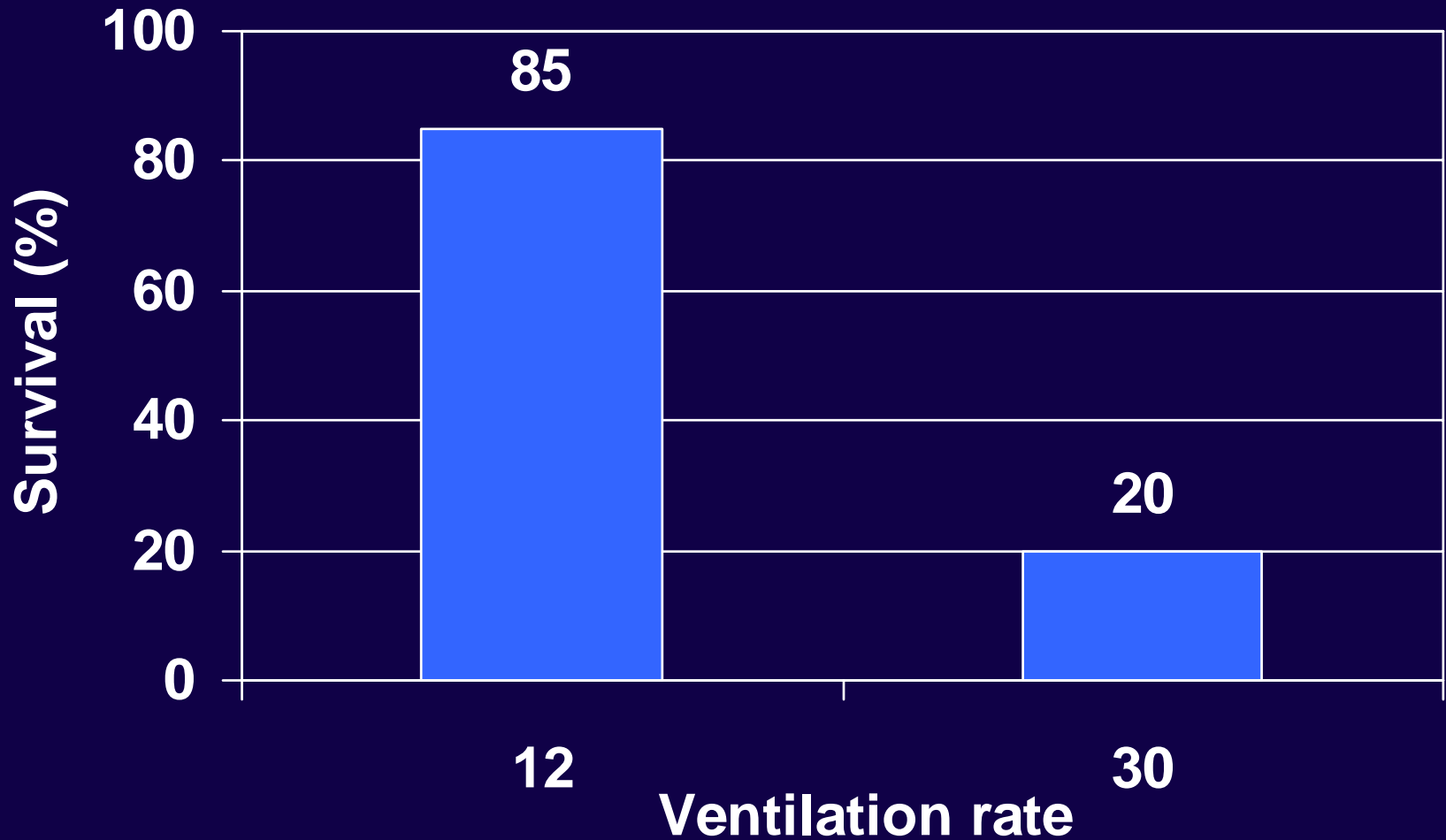
Compression rate matters



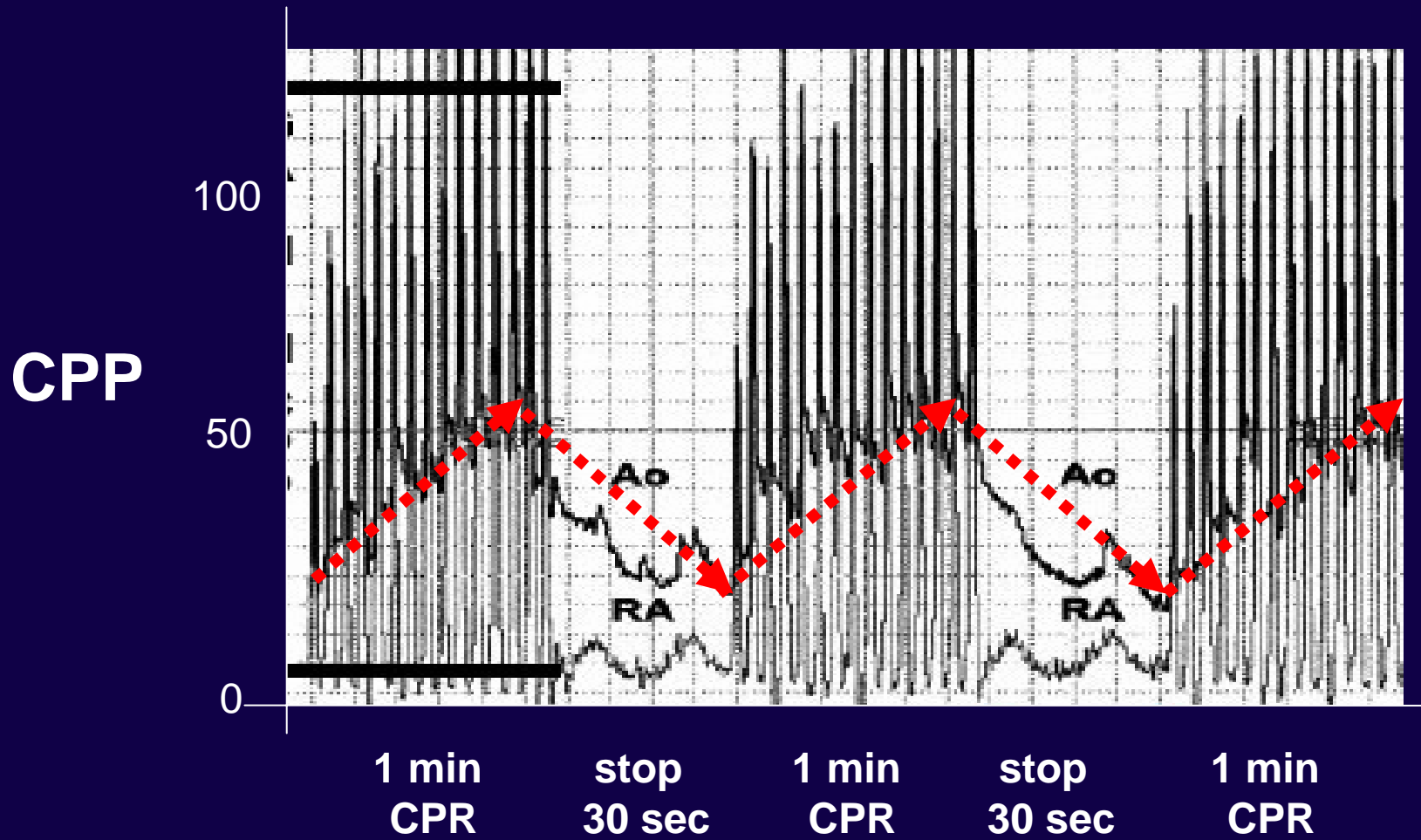
Chest recoil augments cardiac output



Hyperventilation is dangerous



Priming the pump is critical



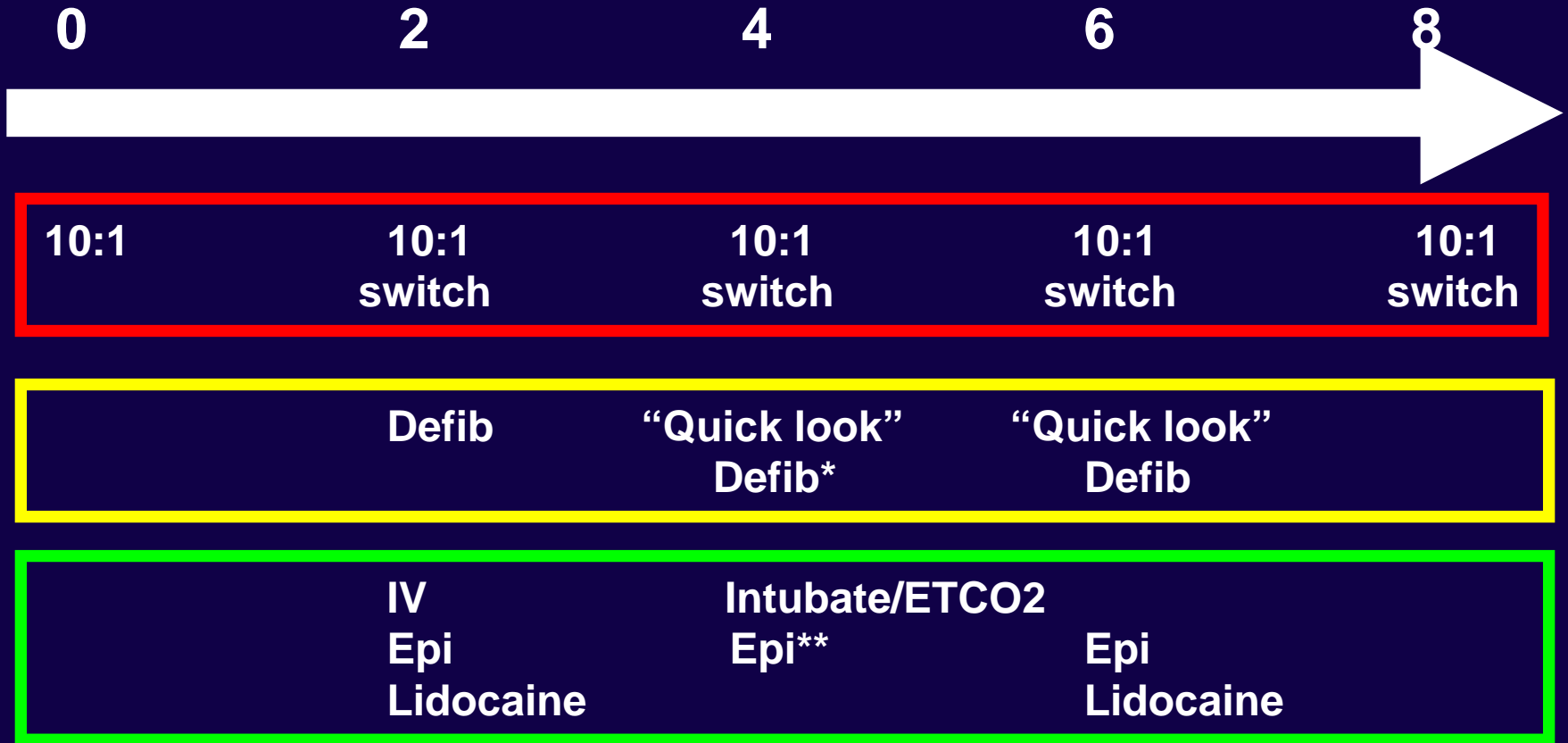
Mannequin Drills



Make It Easy to Remember

- 1) Begin CPR at 10:1 and never stop
- 2) Use a choreographed plan of attack
- 3) Involve every member of the team

Cardiac Arrest Sequence



* 5 sec off chest to Defib

** hold if organized rhythm > 40 bpm

Phase 2 - Job-wide Training (April 2006)



palm

Rx - Rapid Entry - CPR

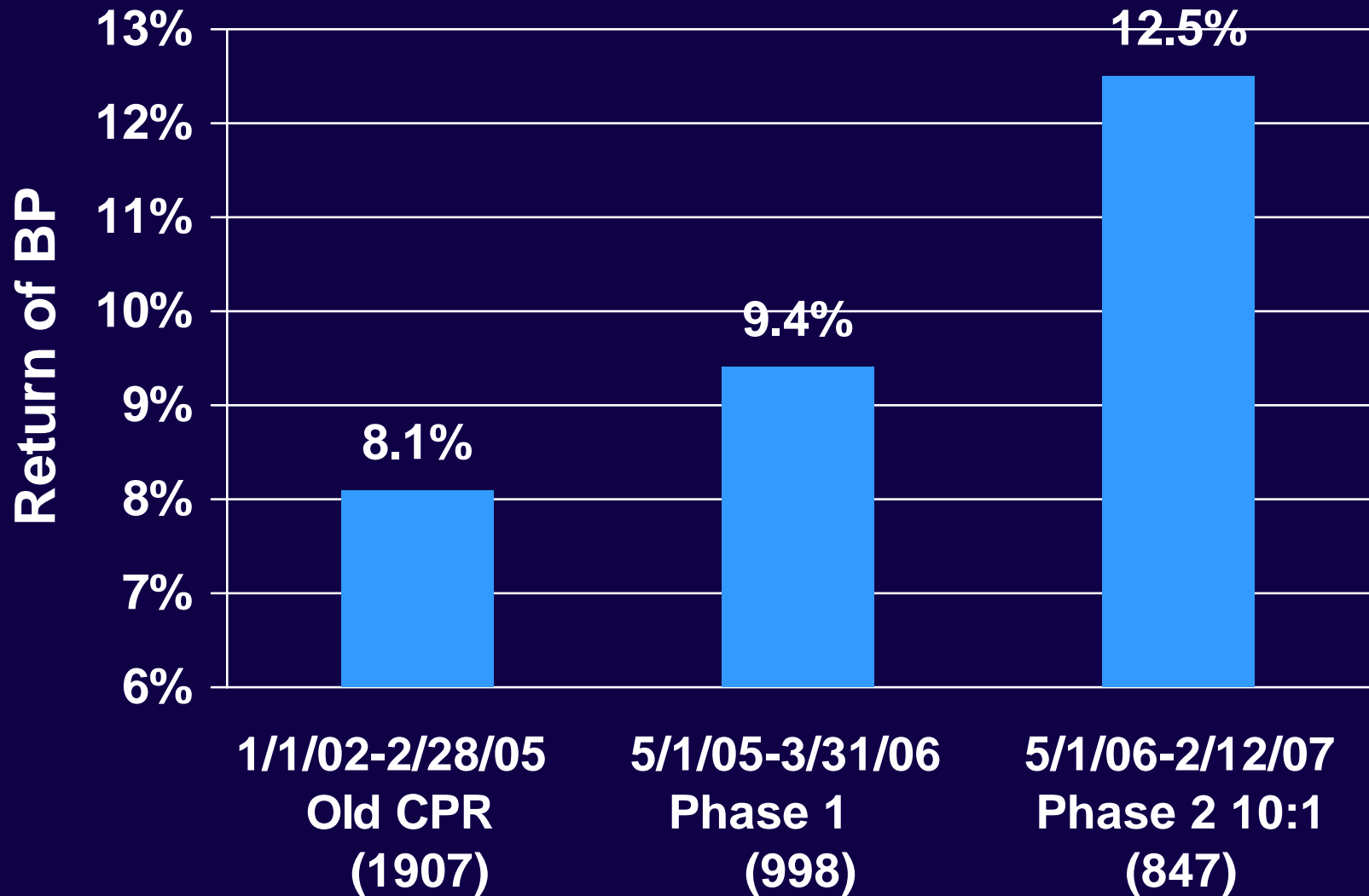
- CPR
- ET
- IV Sm Bag
- Defib
- Epi
- Atropine
- Lidocaine
- Nasal/Oral Airway
- ETAD
- IV Lg Bag
- 1st
- 2nd
- 1st
- 2nd
- 1st
- Bicarb

< Up - Down >

Navigation icons: Home, Back, Star, Search, and a numeric keypad (123).

Results

Non-traumatic Arrest (Age >18)



Conclusions

- The Guidelines improve ROSC
- Ease of implementation is important
- Team training is essential to maximize gain



An aerial photograph of San Diego, California, showing the coastline, the city, and the ocean. The image is tinted with a blue color. The text is overlaid on the lower right portion of the image.

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San Diego

C A L I F O R N I A