



Prehospital Medicine Today: What Really Matters?

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Emergency Medicine Begins...



Advances in Ground Transport...



“I trust that this sort of nonsense will never happen again”



It happened again...



Rescue Teams Appear



Dr. Peter Safar and the Advent of Modern Resuscitation





Greater Houston Convention & Visitors Council

Highway exchange, Houston, Texas.



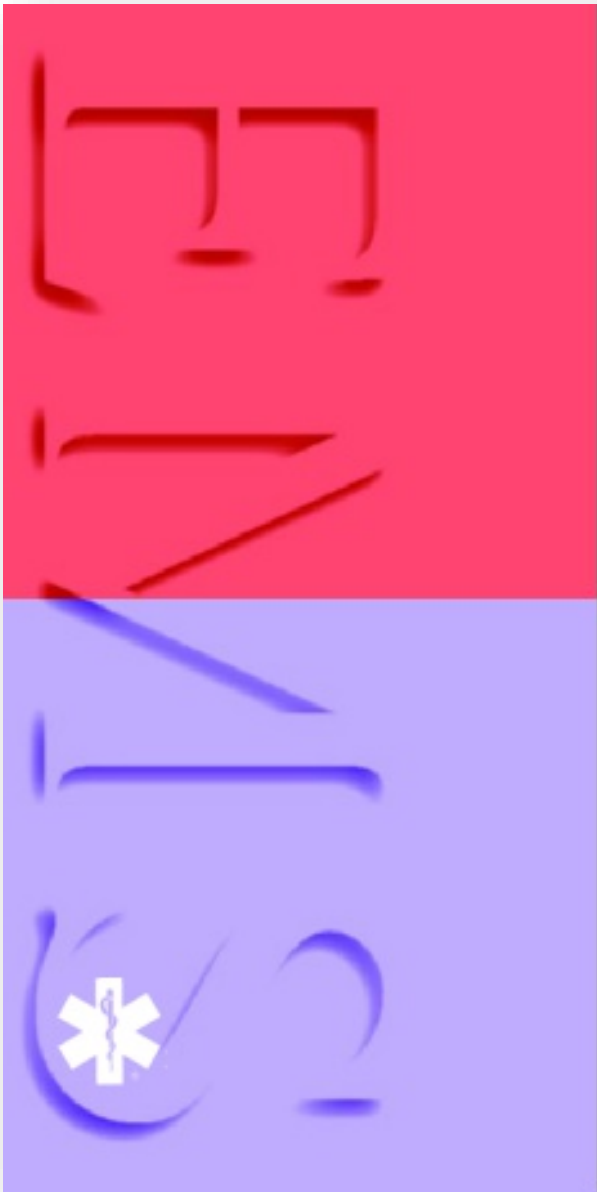
**ACCIDENTAL DEATH AND DISABILITY:
THE NEGLECTED DISEASE
OF MODERN SOCIETY**

Prepared by the
COMMITTEE ON TRAUMA AND COMMITTEE ON SHOCK
DIVISION OF MEDICAL SCIENCES
NATIONAL ACADEMY OF SCIENCES
NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL RESEARCH COUNCIL
Washington, D. C., September, 1966

1973: EMS Systems Act

- Communications
- Training
- Manpower
- Mutual aid
- Transportation
- Accessibility
- Facilities
- Critical care units
- Transfer of care
- Consumer participation
- Public education
- Public safety agencies
- Standard medical records
- Independent review and evaluation
- Disaster Linkage



EMERGENCY
MEDICAL
SERVICES

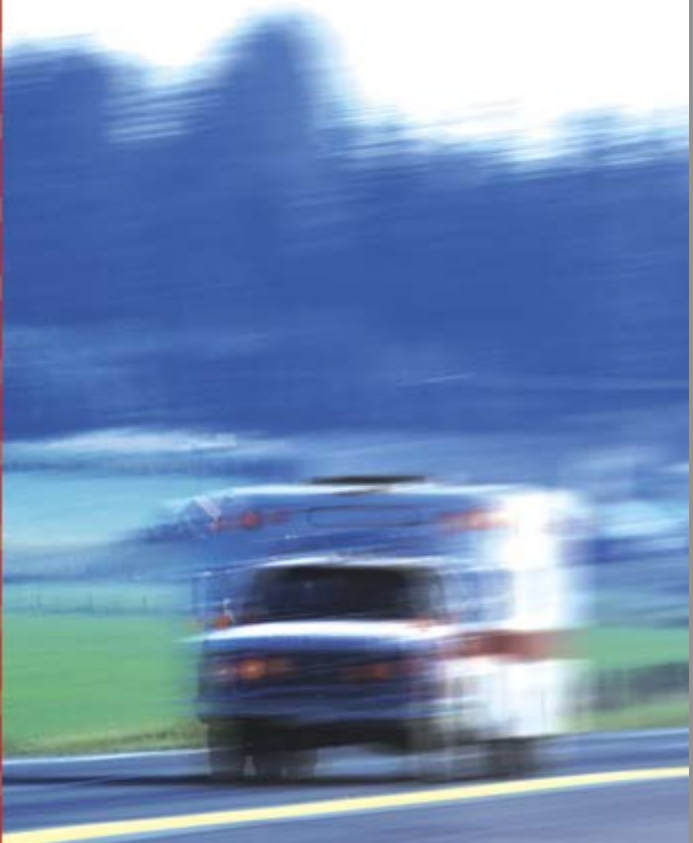
AGENDA

FOR
THE

FUTURE

FUTURE OF EMERGENCY CARE

EMERGENCY MEDICAL SERVICES AT THE CROSSROADS



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

1970

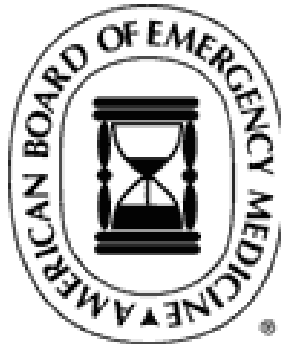


National Registry of
Emergency Medical Technicians®
THE NATION'S EMS CERTIFICATION™

1975



1985



2010



1939



What
REALLY
Matters?



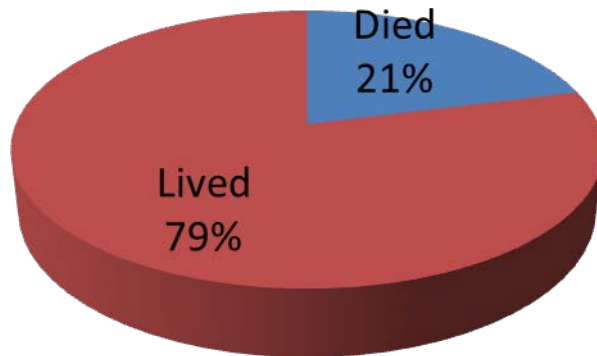




Traumatic Hypothermia

Classification	Environmental Hypothermia	Traumatic Hypothermia
Mild	90-95° F (32-35° C)	93-96.8° F (34-36° C)
Moderate	82-90° F (28-32° C)	90-93° F (32-34° C)
Severe	68-82° F (20-28° C)	<90° F (<32° C)

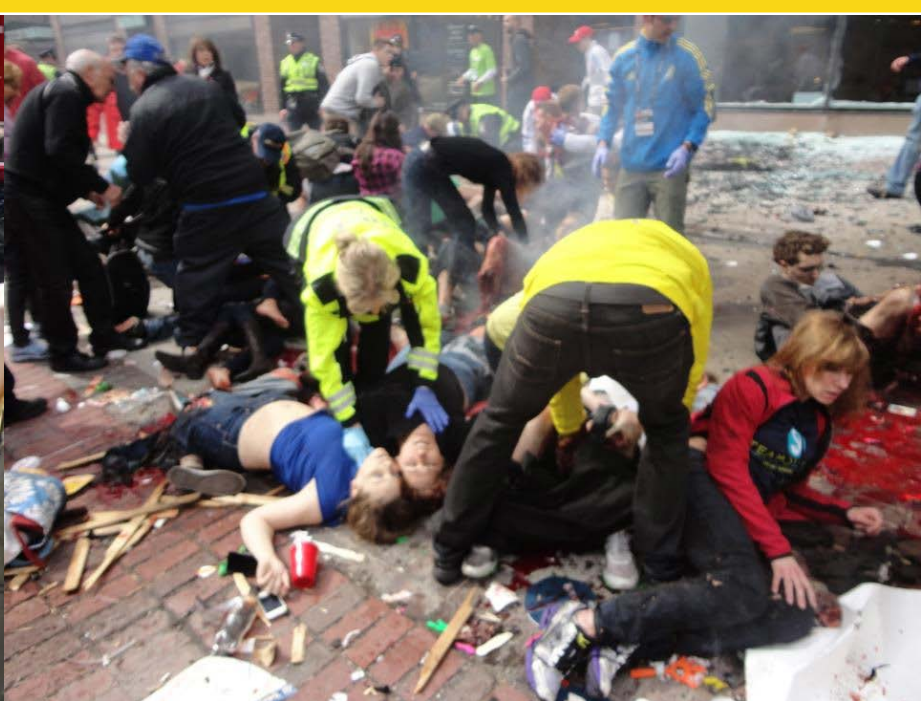
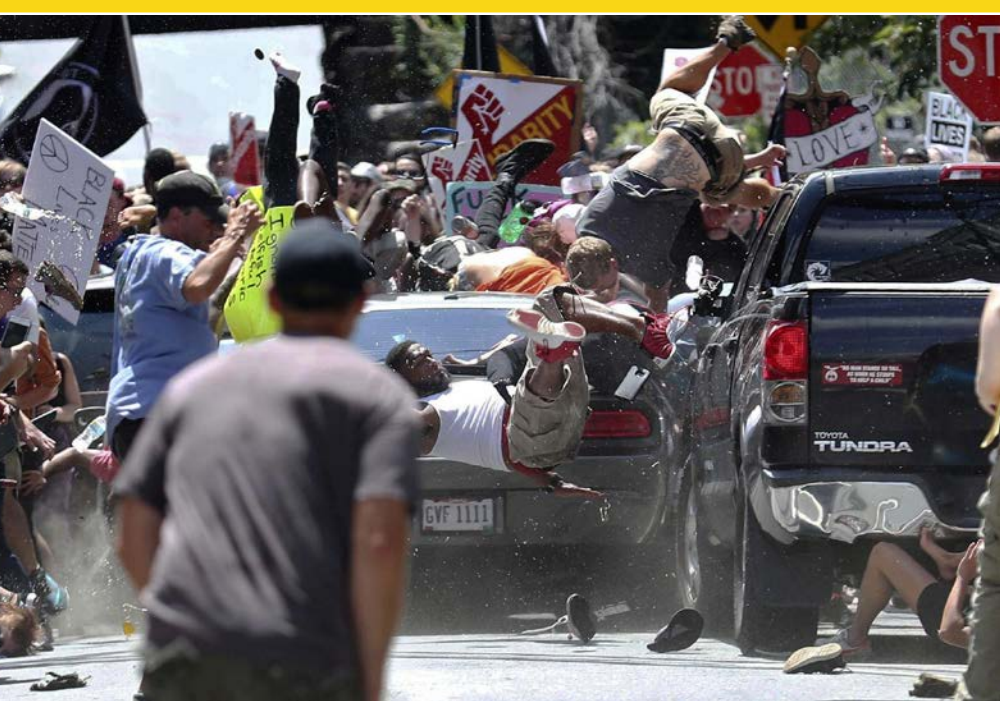
NON-Traumatic Hypothermia



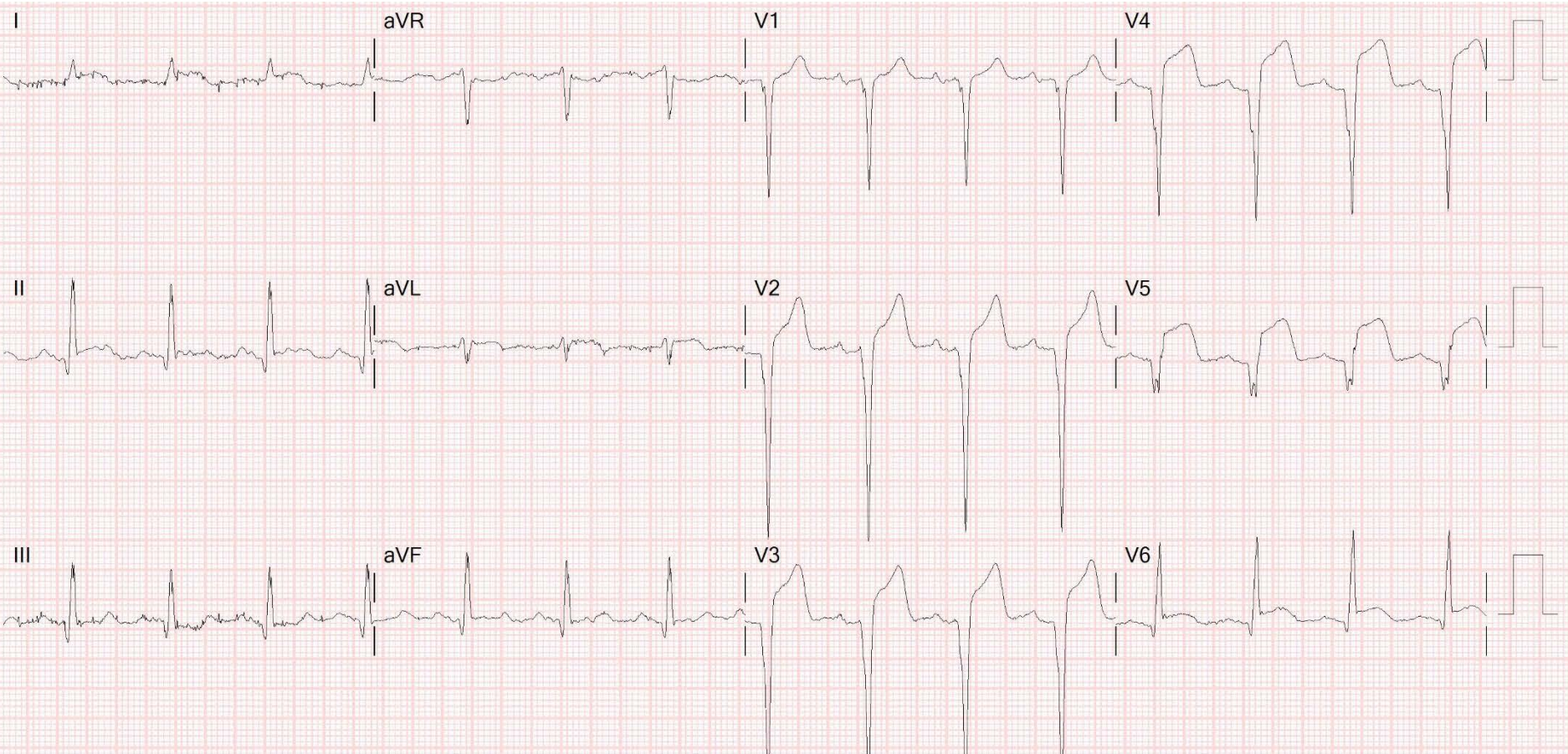
TRAUMATIC Hypothermia











STEMI Feedback Report

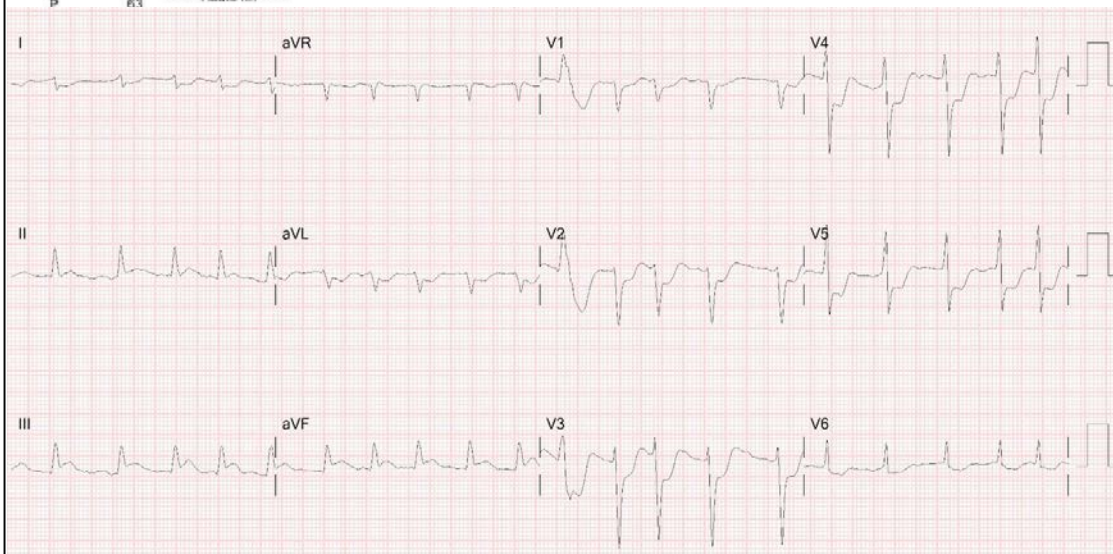
Agency: Henrietta Ambulance

Run#: 171646

Date: 03/07/2017

Rate 64	• Sinus rhythm	normal P axis, V-rate 50-99
PR 170	• Nonspecific intraventricular conduction delay	QRSd >115ms, not LBBB/RBBB
QRSd 123	• Inferior infarct, acute (RCA)	ST>0.10mV in III > II
QT 431	• Anteroseptal infarct, age indeterminate	Q >35mS, T neg, V1-V2
QTc 445	• Lateral leads are also involved	lat Q or ST-T abnormalities
Axes	• Probable RV involvement, suggest recording right precordial leads	
P	• >>> Acute MI <<<	

Requested by:



Indicator	Time (mins)	Goal
First Medical Contact to 12 Lead ECG	2	<10 minutes
STEMI Recognition to Hospital Notify	5	<5 minutes
First Medical Contact to Depart Scene	18	<10 minutes
First Medical Contact to Device	62	<90 minutes
ASA Administered	YES	At any time

Findings

100% dRCA stented





UR
MEDICINE

Comprehensive Stroke Center



The Joint
Commission



American Heart
Association
American Stroke
Association

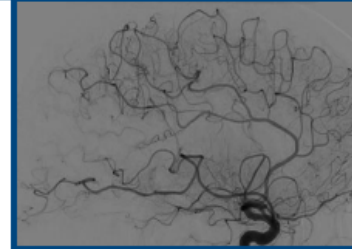
CERTIFICATION
Meets standards for
Comprehensive Stroke Center

STROKE FOLLOW-UP REPORT

Patient Presentation

- **Agency:** CHS Mobile Integrated Healthcare
- **Run#:** 46850726
- **Date of Transfer:** 07/27/17
- **Patient History:** Pt with a witnessed last known well; started to mumble words and developed R sided weakness. Upon EMS arrival, pt exhibited severe dysphasia and was having difficulty with comprehension and following commands.
- **Last Known Well:** 14:50
- **Symptom Discovery:** 14:50

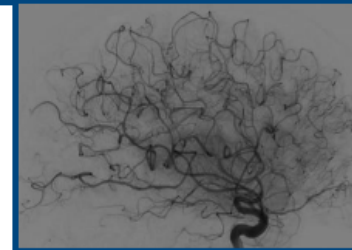
CASE IMAGE – Pre Vascularization



Strong Memorial Hospital Presentation

- **SMH ED arrival time:** 15:25
- **Initial NIHSS:** 19
- **IV tPA initiated:** Yes; 15:50
- **Endovascular therapy:** Yes; left MCA embolectomy
- **Discharge NIHSS:** 0
- **Discharge Disposition:** Discharged Home
- **Comments:** Upon arrival to SMH, head CT demonstrated evidence of an acute left M1 MCA cutoff. Patient received systemic tPA and underwent endovascular therapy to remove the clot from the MCA. Embolectomy was successful with TICI 3 recanalization; complete perfusion. Upon discharge, pt was ambulating well, tolerating a regular diet, and voiding spontaneously.

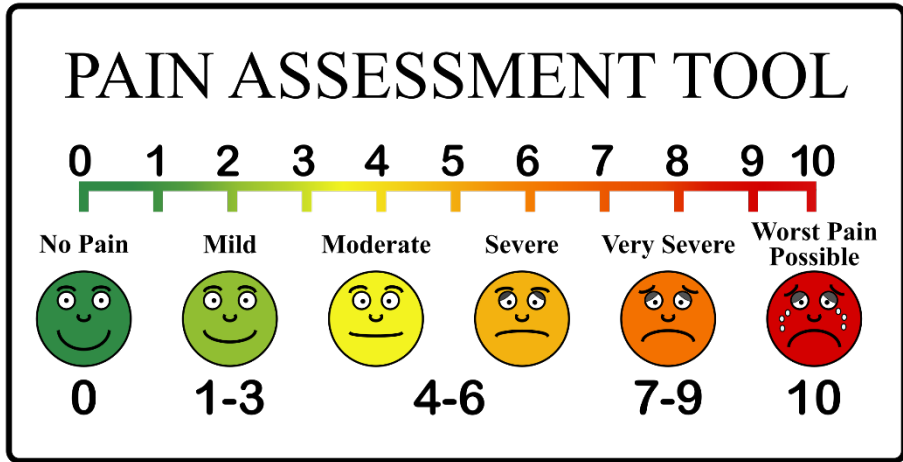
CASE IMAGE – Post Vascularization



EMS Measures

Indicator	Compliance	Goal
Documented Cincinnati Pre-Hospital Stroke Scale?	YES	YES
Documented time "Last Known Well"?	YES	YES
Documented blood glucose?	YES	YES
Scene Time	10 min	≤ 10 minutes
Pre-notification to SMH	YES	YES





Cardiac Arrest



- High quality
- Uninterrupted
- Charge-Analyze-Shock







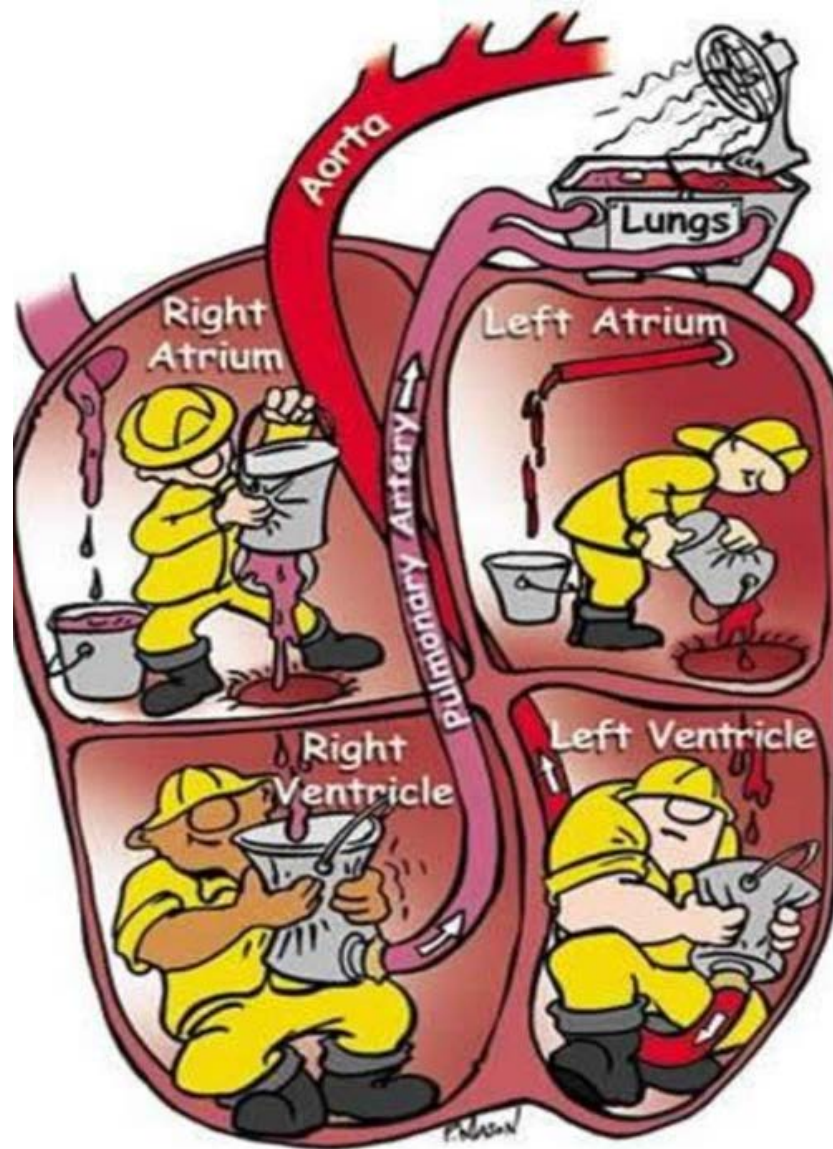










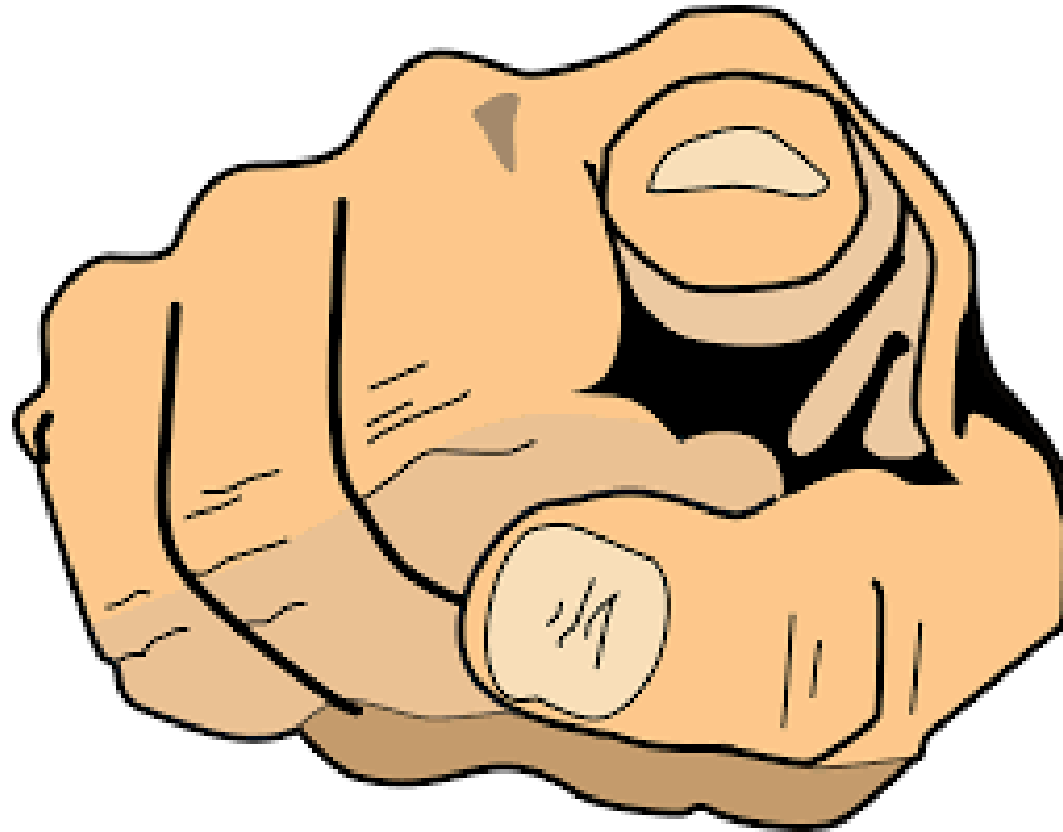


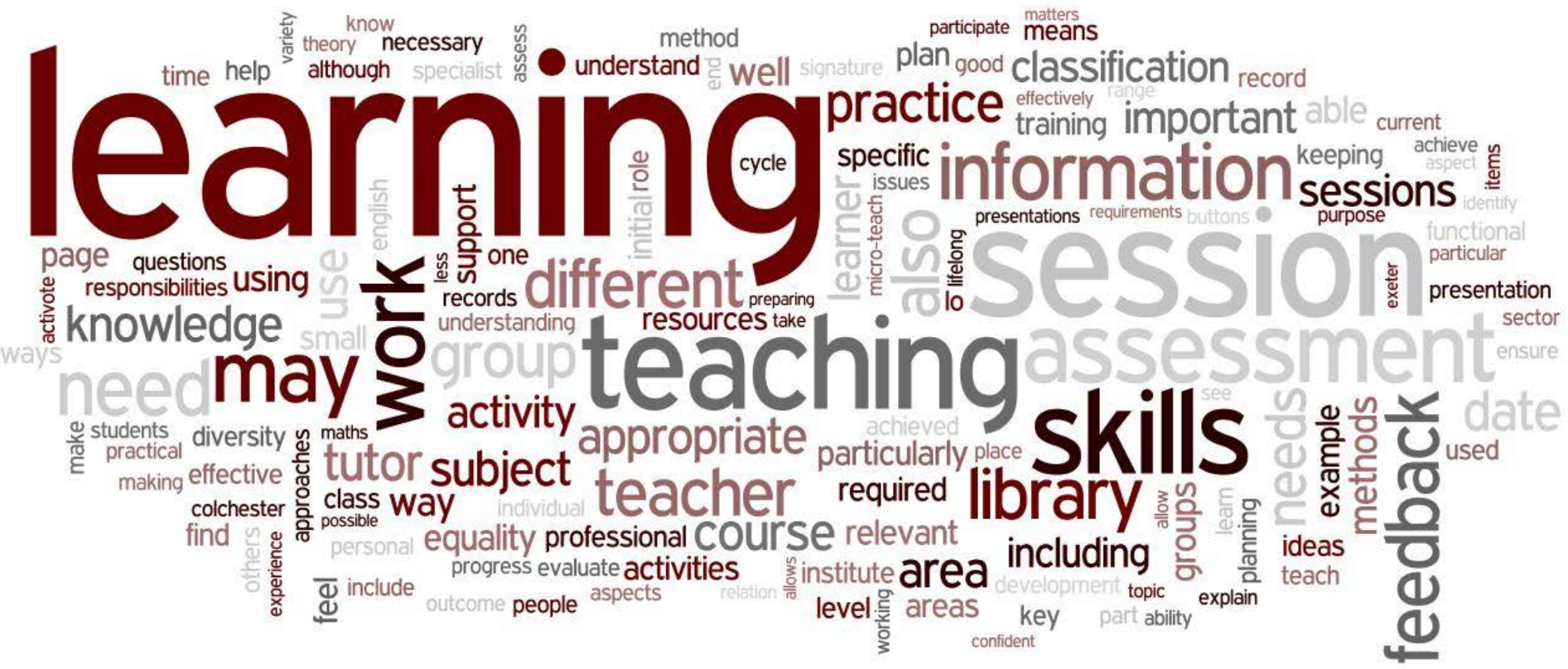
NIH PREDICTED BODY WEIGHT (PBW) / TIDAL VOLUME CHART

MALES								FEMALES							
HEIGHT		PBW	4	5	6	7	8	HEIGHT		PBW	4	5	6	7	8
Feet	Inches	Male	ml/kg	ml/kg	ml/kg	ml/kg	ml/kg	Feet	Inches	Female	ml/kg	ml/kg	ml/kg	ml/kg	ml/kg
4' 10"	58	45.4	180	230	270	320	360	4' 7"	55	34	140	170	200	240	270
4' 11"	59	47.7	190	240	290	330	380	4' 8"	56	36.3	150	180	220	250	290
5' 0"	60	50	200	250	300	350	400	4' 9"	57	38.6	150	190	230	270	310
5' 1"	61	52.3	210	260	310	370	420	4' 10"	58	40.9	160	200	250	290	330
5' 2"	62	54.6	220	270	330	380	440	4' 11"	59	43.2	170	220	260	300	350
5' 3"	63	56.9	230	280	340	400	460	5' 0"	60	45.5	180	230	270	320	360
5' 4"	64	59.2	240	300	360	410	470	5' 1"	61	47.8	190	240	290	330	380
5' 5"	65	61.5	250	310	370	430	490	5' 2"	62	50.1	200	250	300	350	400
5' 6"	66	63.8	260	320	380	450	510	5' 3"	63	52.4	210	260	310	370	420
5' 7"	67	66.1	260	330	400	460	530	5' 4"	64	54.7	220	270	330	380	440
5' 8"	68	68.4	270	340	410	480	550	5' 5"	65	57	230	290	340	400	460
5' 9"	69	70.7	280	350	420	490	570	5' 6"	66	59.3	240	300	360	420	470
5' 10"	70	73	290	370	440	510	580	5' 7"	67	61.6	250	310	370	430	490
5' 11"	71	75.3	300	380	450	530	600	5' 8"	68	63.9	260	320	380	450	510
6' 0"	72	77.6	310	390	470	540	620	5' 9"	69	66.2	260	330	400	460	530
6' 1"	73	79.9	320	400	480	560	640	5' 10"	70	68.5	270	340	410	480	550
6' 2"	74	82.2	330	410	490	580	660	5' 11"	71	70.8	280	350	420	500	570
6' 3"	75	84.5	340	420	510	590	680	6' 0"	72	73.1	290	370	440	510	580
6' 4"	76	86.8	350	430	520	610	690	6' 1"	73	75.4	300	380	450	530	600
6' 5"	77	89.1	360	450	530	620	710	6' 2"	74	77.7	310	390	470	540	620
6' 6"	78	91.4	370	460	550	640	730	6' 3"	75	80	320	400	480	560	640



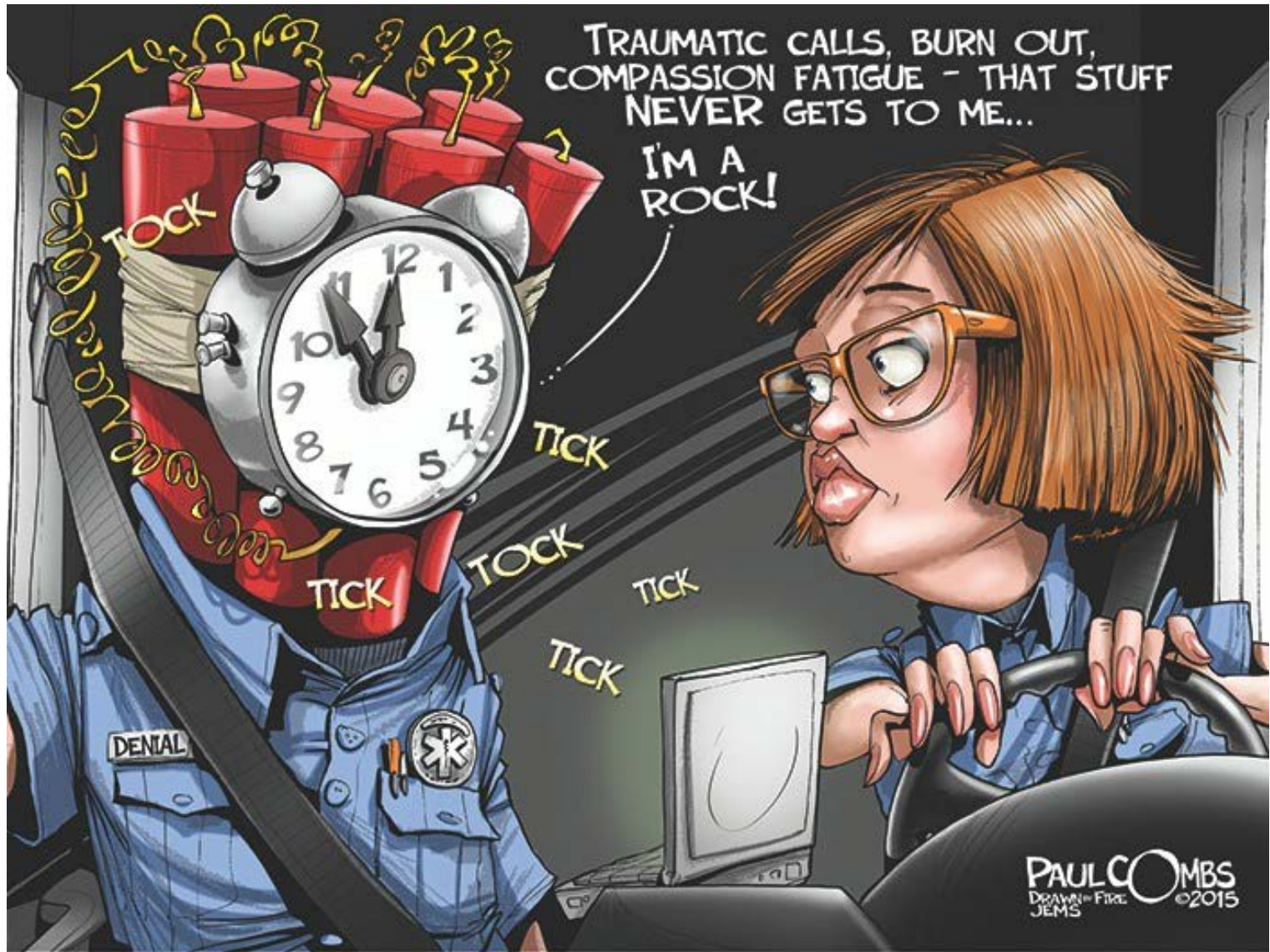
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UNIVERSITY of
ROCHESTER

DIVISION OF PREHOSPITAL MEDICINE



THERE IS NO SHAME IN ADMITTING YOU'RE HUMAN.



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