THIS PACKET CONTAINS THE
BASIC CARDIAC LIFE SUPPORT
HEALTHCARE PROVIDER STUDY GUIDE
&
THE BASIC CARDIAC LIFE SUPPORT
HEALTHCARE PROVIDER PRETEST
BY THE AMERICAN HEART ASSOCIATION

PLEASE REVIEW THE STUDY GUIDE THOROUGHLY
AND
COMPLETE THE PRETEST BY CIRCLING THE CORRECT ANSWER. BRING THIS PRETEST TO CLASS.
THE INSTRUCTORS WILL GO OVER THE PRETEST IN CLASS

The textbook for this class can be purchased at the time of registration

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HEART ATTACK

The American Heart Association says that these are the most common warning signals of a heart attack.

Typical or Classical Presentation

Pressure Fullness Squeezing Pain	Center of the chest, lasting more than a few minutes

Pain Spreading to the shoulders, neck, and arms

Chest discomfort with:
Lightheadedness
Fainting
Sweating
Nausea
Shortness of breath

Less common warning signs
(Commonly seen in woman, elderly, & diabetics)

Atypical Chest pain
Stomach or abdominal pain
Nausea
Dizziness
Shortness of breath/difficulty breathing
Unexplained anxiety
Weakness or fatigue
Palpitations
Cold sweat or paleness

Heart attack facts

Every year about 1.5 million Americans suffer a heart attack and almost 500,000 of them die. The fact is, ***heart attack claims more lives than any other single cause.***

Are you at risk?

STROKE

The American Stroke Association says these are the most common signs of a stroke:

Typical or Classical Presentation

Sudden onset of:

Numbness/Weakness	Face Arm Leg	Especially on one side of the body

Confusion
Trouble/difficulty speaking
Trouble difficulty understanding
Trouble/difficulty seeing in one or both eyes
Trouble/difficulty walking
Loss of balance
Loss of coordination
Severe headache unknown cause

Stroke Facts

Stroke is the nation's third leading killer and the number one cause of adult disability.

½ million people suffer from stroke each year.

Stroke risk more than doubles with each decade we reach after age 55.

Certain medical conditions including high blood pressure, transient ischemic attacks (TIA), previous stroke, heart disease, diabetes, and carotid artery disease are major risk factors.

People with a family history of stroke have a greater stroke risk.

Heart Attack and stroke are ***EMERGENCIES!!!*** Don't delay ---- Call 911

Information contained on this page was provided by the American Heart Association, Fighting Heart Disease & Stroke.

New 2005 AHA GUIDELINES
Health Providers Summary

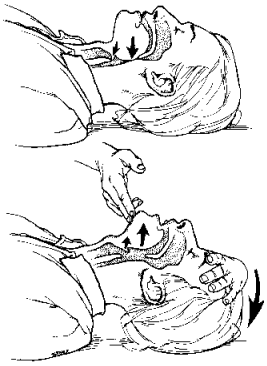
MANEUVER	ADULT Lay rescuer: >8years **HCP**: adolescent & older	CHILD Lay rescuer: 1 to 8 years **HCP**: 1 year to adolescent	INFANT Under 1 year of age
ACTIVATE Emergency Response Number (lone rescuer)	Activate when victim found unresponsive **HCP**: if asphyxial arrest likely, call after 5 cycles (2 min) of CPR	Active after performing 5 cycles of CPR For sudden, witnessed collapse, Activate after verifying that victim unresponsive	
AIRWAY	Head tilt-chin lift (HCP: suspected trauma, use jaw thrust)		
BREATHS Initial	2 breaths at 1 sec/breath	2 effective breaths at 1 second/breath	
HCP: Rescue breathing without chest compressions	10 to 12 breaths/min (approximately 1 breath every 5 to 6 seconds)	12 to 20 breaths/minute (approximately 1 breath every 3 to 5 seconds)	
HCP: Rescue Breaths for CPR with advanced airway	8 to 10 breaths/minute (approximately 1 breath every 6 to 8 seconds)		
Foreign-body airway obstruction	Abdominal thrusts		Back slaps and chest thrusts
CIRCULATION **HCP**: Pulse check (<10 seconds)	Carotid (**HCP** can use femoral in child)		Brachial or femoral
Compression landmarks	Center of chest, between nipples		Just below nipple line
Compression Method Push hard and fast Allow complete recoil	**2 Hands:** Heel of 1 hand, other on top	**2 Hands:** Heel of 1 hand with second on top or **1 Hand:** Heel of 1 hand only	1 rescuer : 2 fingers **HCP**, 2 rescuers: 2 thumb – encircling hands
Compression Depth	1 ½ to 2 inches	Approximately 1/3 to ½ the depth of the chest	
Compression Rate	Approximately 100 compressions/minute		
Compression – Ventilation Ratio	30:2 (1 or 2 rescuers)	30:2 (single rescuer) **HCP**: 15:2 (2 rescuers)	
DEFIBRILLATION			
AED	Use adult pads. Do not use child pads/child system. **HCP**: For out-of-hospital response may provide 5 cycles/2 min of CPR before shock if response > 4 to 5 min and arrest not witnessed.	**HCP**: Use AED as soon as available for sudden collapse and in-hospital. **All**: After 5 cycles of CPR (out-of-hospital). Use child pads/child system if available. If child pads/system not available, use adult AED and pads.	No recommendation for infants < 1 year of age

OPENING THE AIRWAY

SUSPECTED NECK INJURY

JAW THRUST MANUEVER

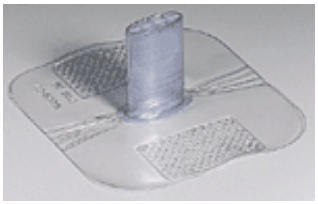
NO SUSPECTED NECK INJURY



HEAD/TILT CHIN LIFT

MOUTH TO MASK DEVICES FOR PROTECTION

DISPOSABLE FACE SHIELD



POCKET MASK

Who do you call if you have a Medical Emergency?

Call
911

Unless your employer has another number

AUTOMATED EXTERNAL DEFIBRILLATOR

A visitor to your hospital collapses. He is having a heart attack, and he will likely die unless defibrillation can be started in the next 2 – 3 minutes.
Can your hospital respond to the emergency?

What is an AED?

An AED is a device used to administer an electric shock through the chest wall to the heart. Built-in computers assess the patient's heart rhythm, judge whether defibrillation is needed, and then administers the shock. Audible and/or visual prompts guide the user through the process. A microprocessor inside the defibrillator interprets (analyzes) the victim's heart rhythm through adhesive electrodes (some AED models require you to press an ANALYZE button) and advises the operator whether a shock is needed. AEDs advise a shock only to ventricular fibrillation and fast ventricular tachycardia. The electric current is delivered through the victim's chest wall through adhesive electrode pads.

Why is the AED Important?

AEDs are important because they strengthen the Chain of Survival. They can restore a normal heart rhythm in victims of sudden cardiac arrest. When a heart attack becomes a full cardiac arrest, the heart most often goes into uncoordinated electrical activity called fibrillation. The heart twitches ineffectively and can't pump blood. New, portable AEDs enable more people to respond to a medical emergency that requires defibrillation. When a person suffers a sudden cardiac arrest; their chance of survival decreases by 7% to 10% for each minute that passes without defibrillation. AEDs save lives!

Are AED's safe for use on children?

A formal American Heart Association statement has been issued for the use of AED's on children below the age of 8 years old and the American Heart Association expert review panels agree that the evidence is sufficient to support their safety and efficiency. It is preferred that you use the pediatric pads if they are available. However if there are no pediatric pads available then you should use the adult pads without altering the pads at all. The pads should be positioned in the same manner as the adult pads after 1 minute of CPR is done. Remember that children go into cardiac arrest from respiratory compromise (FBOA & Asthma).

Can I get shocked if I shock a victim in the rain or near water?

It's remotely possible to get shocked or to shock bystanders if water is standing near or underneath the patient. Try to move the patient to a dry area and cut off wet clothing. Also be sure that the skin has been toweled dry so the electrode pads will stick to the skin. At the moment you press the SHOCK button, you must make sure that no one, including yourself (the AED operator), touches any part of the victim.

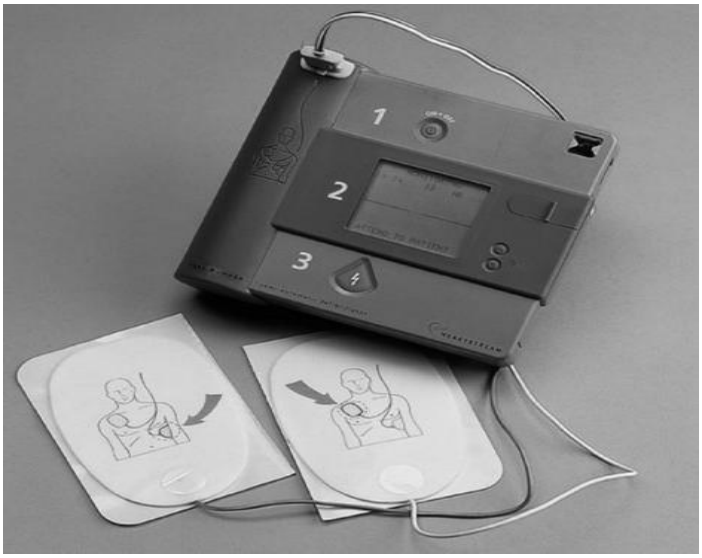
Application Process

Look for and act accordingly to:

1. Implanted devices
2. Medication patches
3. Water contacting the victim
4. Appropriate age and weight

Placement on victim and proper use

1. Place AED at the victims left ear
2. Turn on AED
3. Place adhesive pads on the victims bare chest
4. Clear persons away from the patient
5. Analyze the rhythm
6. Follow the voice prompts



PRETEST

BASIC LIFE SUPPORT
FOR
HEALTHCARE PROVIDERS

PLEASE COMPLETE THE ATTACHED PRETEST AND BRING IT TO YOUR SCHEDULED BCLS/CPR COURSE.

AMERICAN HEART ASSOCIATION

BASIC LIFE SUPPORT FOR HEALTHCARE PROVIDERS

Pretest

February 2006

This examination to be used only as a
PRECOURSE TEST
For BLS for Healthcare Providers Courses

BLS for Healthcare Providers Course
Written Examination Pretest

Circle the correct answer.

1. **While at work in a hospital, you find an adult victim who has collapsed. No one is available to help. After you ensure that the scene is safe, what should you do next?**

    a. Check for responsive ness; if the victim is unresponsive, activate the emergency response system (or phone 911) and get the AED if available.
    b. Phone 911 (or activate the emergency response system), then wait outside to direct the emergency responders.
    c. Open the airway with a tongue-jaw lift and perform 2 finger sweeps to check if food is blocking the airway.
    d. Perform CPR for 1 minute, then phone 911.

2. **You work with an overweight 55-year-old dentist with no know history of heart disease. He begins to complain of sudden, severe, "crushing" pain under his breastbone, in the center of his chest. The pain has lasted more than 5 minutes. What problem should you think of right away, and what should you do?**

    a. Heartburn; tell him to take an antacid.
    b. Angina; phone his personal physician.
    c. Heart attack; phone 911.
    d. Arrhythmia; drive him to an emergency department.

3. **You witnessed the collapse of a 45-yerar-old man. You are now performing CPR after sending someone to phone 911. You have done your best to ensure that the first 2 links in the chain of survival have been completed immediately. What is the third link in the chain, which will have the greatest effect on increasing this man's chance of survival?**

    a. Arrival of the paramedics who will administer drugs
    b. Transportation of the man to the hospital
    c. Arrival of a rescuer with a defibrillator
    d. Arrival of EMS personnel who can do CPR.

4. **You have been talking with a 60-year-old-man. He is alert and has been conversing normally. All at once he complains of a sudden weakness on one side of his face and in one arm. He is also having trouble speaking. What is the <u>most likely</u> cause of his problem?**

    a. A seizure.
    b. A heart attack.
    c. A stroke.
    d. Diabetic coma.

5. **You are a medical advisor helping set up a public access defibrillation (PAD) program at a local shopping mall. The mall has purchased an AED. The mall personnel director asks, "If AED's are so 'foolproof', why do the security guards have to learn CPR and be trained to use the AED?" Which of the following is the best explanation for the need to train rescuers to perform CPR and use an AED?**

    a. Rescuers don't need to learn CPR if they can use an AED.
    b. Rescuers need to be able to verify the rhythm and analyzed by the AED.
    c. Rescuers need to know when and how to use the AED safely and to perform the steps of CPR for unresponsive victims who are not in cardiac arrest.
    d. Rescuers will need to learn to maintain the AED and repair it if something goes wrong.

6. **You are responding to an emergency call for a child who was found unresponsive in her bed with no signs of trauma. How should you open her airway?**

    a. Place your fingers in her mouth and pull forward on her lower jaw.
    b. Do the jaw-thrust maneuver.
    c. Tilt her head and lift her chin.
    d. Pull her tongue forward.

7. **Before providing rescue breathing for an unresponsive victim, you must check for breathing. You do this by listening and feeling for airflow through the victim's nose and mouth by**

    a. Looking into the victim's mouth to see if anything is blocking the airway.
    b. Shaking or tapping the victim's shoulder to stimulate him to breathe.
    c. Checking the pupils.
    d. Looking to see if the chest rises (and falls) as the victim breathes.

8. **Healthcare providers are cautioned to look for "adequate" breathing when they open the airway and check for breathing in an unresponsive victim. What is the best explanation for the requirement that the healthcare provider look for more than just the presence or absence of breathing?**

    a. Healthcare providers often mistake effect breathing for absence of breaths and they start rescue breathing unnecessarily.
    b. Most adult victims of cardiac arrest actually stop breathing before the cardiac arrest, and the respiratory arrest precipitates the cardiac arrest.
    c. Many victims of sudden cardiac arrest actually have a foreign body in the airway, which will require that you check and confirm that breathing is adequate.
    d. Some victims may continue to demonstrate agonal or gasping breaths for several minutes after a cardiac arrest, but these breaths and breaths that are too slow or too shallow will not maintain oxygenation.

9. **You are in the hospital cafeteria, where a woman appears to be in distress. She is grasping her throat with both hands. What should you do to find out if she is choking?**

    a. Give her 5 back blows.
    b. Give her 5 abdominal thrusts.
    c. Ask her "Are you choking?" and look for any response.
    d. Shake her and shout "Are you OK?"

10. **You are providing rescue breathing for a child using a bag-mask device. What action will confirm that each of your rescue breaths is adequate?**

    a. Determining the child's weight, calculating the tidal volume, and delivering that amount of air.
    b. Observing the child's chest rise with each rescue breath.
    c. Choosing the correct size bag-mask device, which will ensure delivery of adequate rescue breaths
    d. Delivering breaths quickly with high peak inspiratory pressures.

11. **A 3-year-old child is eating in the hospital playroom. She suddenly begins to coughing repeatedly. Her cough then quickly becomes soft and weak. She is making high-pitched noises while breathing in and seems to be in respiratory distress. Her skin is a bluish color. What is the most likely cause of her distress?**

    a. An acute asthma attack causing swelling of the airway.
    b. Severe or complete airway obstruction with inadequate air exchange.
    c. Infected and swollen vocal chords.
    d. A seizure from a possible head injury.

12. You are performing rescue breathing with a bag-mask device and oxygen for a nonbreathing child <u>with signs of circulation</u>. How often should you provide rescue breaths for the child?

a. Approximately once every 3 seconds (20 breaths per minute)
b. Approximately once every 4 seconds (15 breaths per minute).
c. Approximately once every 5 seconds (10 to 12 breaths per minute)
d. Approximately once every 10 seconds (6 breaths per minute)

13. You are performing 2-rescuer CPR. You are positioned at the victim's head. When you initially open the unresponsive victim's airway and find that he is not breathing adequately, how many <u>initial</u> breaths should you give?

a. 1
b. 2
c. 3
d. 4

14. You are at your grandmother's house. Your grandmother is unresponsive and has stopped breathing. You are giving her mouth-to-mouth breathing. Which of the following statements is the best explanation for the positive effects of rescue breathing?

a. Rescue breaths help overcome any airway obstruction that may be blocking the airway
b. Rescue breaths will maintain a normal arterial oxygen content
c. Rescue breathing might help defibrillate the heart.
d. Rescue breaths are a quick, effective way to provide oxygen to the victim

15. A 52-year-old man collapses at the fitness center after a workout. To determine whether he is in cardiac arrest, you should check for signs of circulation. Part of the assessment is the pulse check. What is the preferred site for a pulse check for this adult victim?

a. At the radial artery of the wrist
b. At the brachial artery of the wrist
c. At the carotid artery of the neck
d. On the chest over the heart

16. Where should you place your hands on the chest of a victim when you are performing chest compressions?

a. On the top half of the breastbone.
b. Over the heart, on the left side of the chest at the nipple line
c. Over the very bottom of the breastbone, on the xyphoid
d. On the lower half of the breastbone, at the nipple line at the center of the chest.

17. **You are performing CPR on an unresponsive man who was found in his bed. What is your ration of compressions to ventilations?**

    a. 15 compressions, then 2 breaths
    b. 5 compressions, then 1 ventilation
    c. 30 compressions, the 2 ventilations
    d. 15 compressions, then 5 ventilations

18. **What is the correct rate or speed you should use to perform compressions for an adult victim of cardiac arrest?**

    a. A rate of 60 times per minute
    b. A rate of 80 times per minute
    c. A rate of 100 times per minute
    d. A rate of 120 times per minute

19. **You and a colleague have responded to a 911 call to attempt resuscitation of an unresponsive man who was found in a chair. After laying the victim supine on a hard surface, you open the airway and check for breathing. When you find no normal breathing you deliver 2 effective breaths. Next you check for signs of circulation and find no signs of circulation. What should you and your partner do next?**

    a. Attach an AED (if available) or begin chest compressions and cycles of compressions and ventilations
    b. Deliver 5 abdominal thrusts
    c. Check for signs of circulation again
    d. Reposition the airway and reattempt rescue breaths

20. Which of the following most accurately characterizes when you should start chest compressions?

a. As soon as you find that there are no signs of circulation
b. After you have reassessed the victim's breathing
c. After giving the 2 initial ventilations
d. Whenever you find an unresponsive person

21. When you perform CPR, how do your chest compressions and rescue breathing help the victim of sudden cardiac arrest?

a. CPR decreases the need for coronary artery bypass
b. CPR forces the heart into ventricular ventilation to return to a normal heart rhythm
c. CPR has no effect on survival
d. Immediate CPR provides a flow of oxygen-rich blood to the heart and brains and "buys time" until defibrillation

22. A 7-year-old boy is stuck by a car in front of your house. You find him unresponsive and bleeding from a wound on his forehead. How should you open his airway?

a. By tilting his head and lifting his chin
b. Jaw thrust with cervical spine immobilization
c. By sweeping out his mouth and pulling forward on his tongue
d. By not moving him at all because he might have a broken neck