



## ACLS Study Guide

The American Heart Association released new resuscitation science and treatment guidelines on October 19, 2010.

### Please read the below information carefully

This letter is to confirm your registration in the American Heart Association Advanced Cardiac Life Support (ACLS) course.

Please plan to be on time. All classes start at 9:00 am sharp. If you are more than 15 minutes late, you may be turned away as required by the American Heart Association (AHA). Students are expected to attend and participate in the entire course.

Be prepared to pass the adult 1-rescuer CPR skills test. Please note that we do not renew your BLS card based on this CPR test, which is a requirement of the PALS course itself. However you can however purchase and complete the AHA Online eLearning BLS for Health Care Provider Program through our website prior to the PALS course. We will verify your skills in BLS CPR and issue an ACLS and BLS for Health Care Provider certificate at the end of the course.

All ACLS renewal/recertification (1-day) participants **MUST** bring their current American Heart Association-issued ACLS card to class. There are no exceptions for expired cards. If you forget your card you will be able to participate in the course but will not be issued your card until you show proof of your current AHA ACLS Card. Refunds will not be given if you attempt to take the ACLS renewal/recertification course with an expired certification.

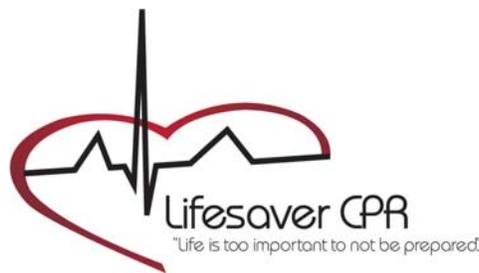
ACLS certification cards and Continuing Education Units (CEU's) will be issued at the end of class.

### HOW TO GET READY

The ACLS Course is designed to teach you the lifesaving skills required to be both a team member and a team leader in either an in-hospital or an out-of-hospital setting. The ACLS Course covers extensive material in a short time, **you will need to study and prepare for the course beforehand.**

*The ACLS Course **DOES NOT** teach CPR, ECG rhythm identification, pharmacology, or ACLS algorithms.*

**The course format requires all students to be fully prepared prior to coming to class. If you do not review CPR, learn and understand ECG's, or the pharmacology information in the Pre-course Self-Assessment, it is unlikely that you can successfully complete the ACLS Course.**



## **PRE-COURSE REQUIREMENTS**

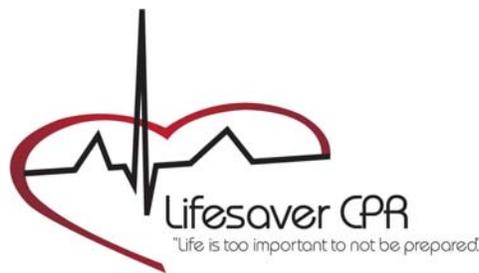
**You should prepare for the course by doing the following:**

1. Complete the pre-course preparation checklist that came with your ACLS Provider Manual. (ALL STUDENTS MUST HAVE THE CURRENT AHA PALS MANUAL PRIOR TO ATTENDING CLASS) Bring the checklist with you to the course.
2. Review the ACLS Course Agenda.
3. Review and understand the information in your ACLS Provider Manual.
4. The resuscitation scenarios require that your BLS skills and knowledge are current. Review and understand all BLS 2010 guidelines. You will be tested on 1-rescuer adult CPR and AED skills at the beginning of the ACLS Provider Course. You must know this in advance, since you will not be taught how to do CPR or how to use an AED during the course.
5. Go to the AHA ACLS Website at [www.heart.org/eccstudent](http://www.heart.org/eccstudent) and enter the code compression. (students are expected to know how to perform BLS CPR, use an AED, read and interpret ECG's, and all ACLS Pharmacology prior to the course. **YOU WILL NOT BE TAUGHT THIS INFORMATION IN CLASS**)
  - a. Watch the ACLS Science Overview Video
  - b. Watch the CPR/AED Overview Video
  - c. Watch the I/O (intraosseous) Video
  - d. Watch the Stroke Video
  - e. Take the ACLS Pre-Course Self-Assessment Exam (you can take this Pre-Course test multiple times.)
6. Print your ACLS Pre-course Completion Certificate with test score and bring it with you to class.
7. Test your knowledge and recognition of ECG rhythms on the website [http://www.skillstat.com/ECG\\_Sim\\_demo.html](http://www.skillstat.com/ECG_Sim_demo.html)
8. Visit my download page at [www.lifesavercpr.net/downloads](http://www.lifesavercpr.net/downloads) to see all of the ACLS Course Material and Skills Check Off Sheets used during the course.

## **WHAT TO BRING AND WHAT TO WEAR**

Bring your ACLS Provider Manual to the class. You will need it during each lesson in the course. You may wish to purchase the AHA's 2010 Handbook of Emergency Cardiovascular Care for Healthcare Providers (optional), which you may bring to the course to use as a reference guide during some of the stations in the course.

Please wear loose, comfortable clothing to class. You will be practicing skills that require you to work on your hands and knees, and the course requires bending, standing, and lifting. If you have any physical condition that might prevent you from engaging in these activities, please tell an instructor. The instructor may be able to adjust the equipment if you have back, knee, or hip problems.



## RESCHEDULE POLICY

- **No refunds will be issued. All registrations are final.**
- You may reschedule your course by calling us at least 7 business days prior to your scheduled course date. You will be charged a rescheduling fee of \$50.00
- We understand that emergencies do come up. If you have to reschedule less than 7 days before the class you will be charged a rescheduling fee of 50% of the course cost.
- If you cancel within 24 hours or do not attend your scheduled class, you will forfeit all class tuition.
- Courses must be rescheduled and attended within 50 days from the original start date. No additional rescheduling requests will be honored.

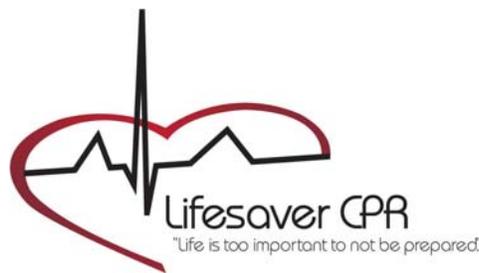
## PATIENT ASSESSMENT

In ACLS, the specific treatment of a given dysrhythmia or condition depends on the patient's hemodynamic status. In general, patients can be divided into four categories to determine treatment priorities:

- Asymptomatic
- Symptomatic – Stable
- Symptomatic – Unstable
- Pulseless

Asymptomatic patients do not receive treatment, but should be monitored for changes in condition. Any patient with symptoms (even apparently mild symptoms such as palpitations) should be assessed to determine if they are stable or unstable. Determination of a patient's level of hemodynamic compromise can include several factors:

- **General Appearance:** The first indication of hemodynamic status comes from a patient's general appearance, including skin signs, level of activity, and work of breathing. If a patient shows signs of shock, such as pale, cool, or diaphoretic skin, chest pain, hypotension, or acute distress, they are unstable.
- **Level of Consciousness:** Interaction with the patient allows the provider to evaluate the patient's level of consciousness based on the patient's activity, awareness of their surroundings, and ability to provide information. If a patient shows any level of mental deficit, family or friends should be consulted to determine if this state differs from the patient's baseline. If the mental deficit is acute, the patient should be considered unstable.
- **Vital signs:** Vital signs provide a diagnostic evaluation of the patient. Blood pressure is the primary indicator. A systolic blood pressure above 90 mm usually indicates that the patient is stable (although the provider should be alert for changes in blood pressure that might indicate an unstable patient even if blood pressure is normal). Other vital signs may be useful; however, the provider should remember that various conditions



(CO poisoning) can mask changes in blood oxygen levels, and that a high O<sub>2</sub> saturation may be present in unstable patients (those in shock). Additionally, heart rate is of no use in determining if a patient is stable or unstable – a patient with a heart rate of 80 can be severely unstable, while a patient with a heart rate of 210 can be stable if they are still perfusing well.

If a patient's General Appearance, Level of Consciousness, and Vital Signs are all normal, the patient is stable. If possible, treatment should be rendered starting with the least invasive that is appropriate for that patient's hemodynamic status. In ACLS, the preferential treatment for symptomatic, but stable patients is generally medications. The preferential treatment for unstable patients is generally Electrical Therapy.

Once treatment is rendered, the provider must reassess the patient. If the patient remains symptomatic, the appropriate treatment (medications or electricity) should be given again depending on the patient's heart rhythm and current hemodynamic status. Thus, if a patient was stable before, but becomes unstable after administration of a drug, the patient should receive electrical therapy to continue treating the dysrhythmia rather than additional doses of a medication. If a patient's General Appearance indicates they may be unconscious, you should check for responsiveness. If the patient is unresponsive, get help (send someone to call 911 and bring back an AED, call a code, etc.). Assess for signs of life, such as moving, gasping, or breathing, then assess circulation by checking for a pulse. If the patient has a pulse, assess breathing next. If the patient is not breathing, or breathing inadequately, rescue breathing should be initiated. If the patient is pulseless, rescuers should begin CPR.

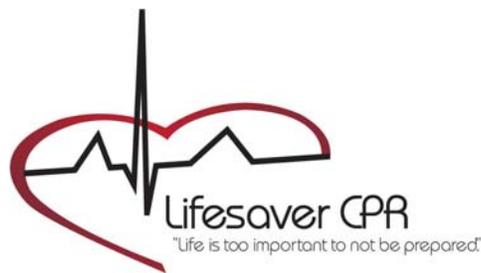
Once you determine that a patient is pulseless, an AED or EKG monitor should be attached as soon as possible. CPR should be continued with minimal interruptions. After each rhythm check, the patient should be defibrillated if appropriate (Ventricular Fibrillation or Pulseless Ventricular Tachycardia). Regardless of the heart rhythm, medications should be given as soon as possible after CPR is resumed. The specific medication should be determined by the patient's exact status and heart rhythm.

**Remember: Treat the patient not the monitor!!**



## ACLS Course Agenda (Initial Course)

<i>Day 1</i>		
8:30 Welcome/Introductions		
8:35 <b>Lesson 1:</b> ACLS Course Overview/Organization		
8:40 <b>Lesson 2:</b> BLS and ACLS Surveys		
<b>Divide class into 2 groups</b>	<b>Lesson 3</b> Management of Respiratory Arrest Learning and Testing Station	<b>Lesson 4</b> CPR and AED Practice and Testing Station
9:00	Group 1	Group 2
9:45	Break	Break
10:00	Group 2	Group 1
<b>One large group</b>		
10:45 <b>Lesson 5:</b> The Megacode and Resuscitation Team Concept		
<b>Divide class into 2 groups</b>	<b>Lesson 6</b> Cardiac Arrest (VF/Pulseless VT) Learning Station	<b>Lessons 7 and 8</b> ACS and Stroke Learning Station
11:10	Group 1	Group 2
12:40	Lunch	Lunch
1:25	Group 2	Group 1
2:55 Break		
<b>Divide class into 2 groups</b>	<b>Lesson 9</b> Bradycardia/PEA/Asystole Learning Station	<b>Lesson 10</b> Tachycardia, Stable and Unstable Learning Station
3:10	Group 1	Group 2
3:55	Group 2	Group 1
4:40 End of Day 1		
<i>Day 2</i>		
<b>Divide class into 2 groups</b>	<b>Lesson 11</b> Putting It All Together Learning Station	<b>Lesson 11</b> Putting It All Together Learning Station
8:30	Group 1	Group 2
10:05 Break		
<b>Divide class into 2 groups</b>	<b>Megacode Test</b>	<b>Megacode Test</b>
10:20	Group 1	Group 2
<b>One large group</b> (as students finish Megacode test)		
11:20 Written Test		
12:05 Class Ends/Remediation		



## ACLS Course Agenda (Recertification/Renewal Course)

8:30 Welcome/Introductions		
8:35 <b>Lesson 1:</b> ACLS Course Overview/Organization		
8:40 <b>Lesson 2:</b> ACLS Science Overview Video		
9:05 <b>Lesson 3:</b> BLS and ACLS Surveys (Lesson Maps ACLS-U 3A-B)		
<b>Divide class into 2 groups</b>	<b>Lesson 4</b> (Lesson Maps ACLS-U 4A-B)	<b>Lesson 5</b> (Lesson Maps ACLS-U 5A-B)
	Bag-Mask Ventilation Testing Station	CPR and AED Testing Station
9:25	Group 1	Group 2
9:55	Group 2	Group 1
<b>One large group</b>		
10:25 Break		
10:40 <b>Lesson 6:</b> The Megacode and Resuscitation Team Concept		
<b>Divide class into 2 groups</b>	<b>Lesson 7</b> (Lesson Map ACLS-U 7A)	<b>Lesson 7</b> (Lesson Map ACLS-U 7A)
	Putting It All Together Learning Station	Putting It All Together Learning Station
11:05	Group 1	Group 2
12:30 Lunch		
<b>Divide class into 2 groups</b>	<b>Megacode Test</b>	<b>Megacode Test</b>
	Group 1	Group 2
1:15	Group 1	Group 2
<b>One large group</b> (as students finish Megacode test)		
2:15 Written Test		
2:45 Class Ends/Remediation		
Optional: ACS and Stroke lessons		