

Frequently Asked Questions: AHA Requirement on Use of Feedback Devices in Adult CPR Training



CPR & Emergency Cardiovascular Care

As of January 31, 2019

Q: Why is the AHA requiring the use of feedback devices in adult CPR training?

A: Following the scientific evidence on feedback devices highlighted in the 2015 AHA Guidelines Update for CPR and ECC, by January 31, 2019, the AHA will require the use of an instrumented directive feedback device or manikin in all AHA courses that teach the skills of adult CPR.

Specific and targeted feedback is critical to students understanding and delivering high-quality CPR when faced with a cardiac emergency. Incorporating feedback devices into adult CPR courses improves the quality and consistency of CPR training, which increases the chance of a successful outcome when CPR is performed.

CPR saves lives, and ensuring our courses provide the necessary, correctly performed skills gives healthcare providers and others trained in CPR confidence and empowers them to help in doubling survival rates from cardiac arrest by 2020.

Q: What specific science and research studies support this requirement?

A: The 2015 AHA Guidelines Update for CPR and ECC highlighted research showing the benefit of feedback devices that provide learners with real-time, audio-visual corrective feedback on aspects such as chest compression rate, depth, and recoil.

As stated in the 2015 AHA Guidelines for CPR and ECC, "Unfortunately, inadequate performance of CPR is common yet challenging for providers and instructors to detect, thereby making it difficult to appropriately focus feedback and improve future performance. Technology could theoretically help address this problem by assessing CPR performance and providing feedback."

Studies have also shown that feedback devices help students achieve mastery of critical CPR skills and shorten the time to demonstration of competence.

Additional information on the science can be found in "Part 14: Education, CPR Feedback/Prompt Devices in Training" of the 2015 AHA Guidelines Update for CPR and ECC.

A bibliography of research studies on the use of feedback devices in CPR training is available to AHA Training Centers and Instructors on the AHA Instructor Network at [Additional Tools>Training Updates](#).

Q: When does this requirement go into effect?

A: This requirement went into effect January 31, 2019. Because the AHA recognizes this future requirement may have budgetary and logistical impact on some AHA Training Centers, we announced this requirement on August 15, 2017. This provided more than 16-months' notice to allow Training Centers adequate time to research, identify, and incorporate device solutions.

Q: Is the AHA also requiring the use of feedback devices for child and infant CPR training?

A: Not at this time. At the time of this directive, limited information was available on devices designed to the specifications of child and infant compression rate and depth. As more devices become available for child and infant CPR, the AHA will also require the use of feedback devices in courses that teach the skills of child and infant CPR.

Q: Is a feedback device required during both practice and testing?

A: Yes. A feedback device is to be used during both practice and testing to ensure consistent and accurate feedback in all portions of training.

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Q: In the ACLS Course, is a feedback device required in each station where CPR is performed?

A: Yes, a feedback device visible to the student (so they can self-correct) is required in each station where CPR is performed. Therefore, it is required for the following ACLS stations: High Quality BLS, the Cardiac Arrest Station, the Megacode Practice, and the Megacode Testing stations (one device per group).

For example, if following the ACLS Sample Agendas on page 38-39 of the ACLS Instructor Manual, two concurrent groups of students would be going through those stations. Therefore, two feedback devices (one for each group) should be visible to students for self-correction. If following the ACLS Sample Agendas on page 228 -229 or the HeartCode Sample Agenda on page 230 of ACLS Instructor Manual, four concurrent groups of students would be going through those stations. Therefore, four feedback devices (one for each group) should be visible to students for self-correction.

About Instrumented Directive Feedback Devices

Q: What is an instrumented directive feedback device?

A: An instrumented directive feedback device measures compression rate, depth, hand position, recoil, and chest compression fraction and provides real-time audio or visual feedback (or both) on these critical CPR skills. A feedback device can be integrated into a manikin or serve as an accessory to a manikin.

To meet the AHA's requirement, at a minimum, the device must measure and provide real-time audio feedback or visual feedback (or both) on compression rate and depth. This audio or visual information allows students to self-correct their skills in real time.

Manufacturers offer a variety of instrumented directive feedback devices, at a range of budgetary and logistical needs, to address the chest compression rate and depth requirement, as well as provide feedback on hand placement. Types of feedback devices can include

- Those that can be added to and used with existing manikins;
- Those that are part of manikins;
- Monitors or defibrillators used with manikins; or
- High-fidelity manikins

Q: Can the AHA review or recommend feedback devices to confirm that they meet the requirement?

A: No, the AHA cannot review or recommend specific equipment. AHA Training Centers should contact equipment manufacturers directly for any questions regarding the capability of equipment to meet requirement criteria.

Q: Is a metronome a feedback device?

A: No. While a metronome provides a rate to follow during CPR practice, it does not give directive feedback on the student's actual performance.

Q: Page 28 of the Highlights of the 2015 AHA Guidelines Update for CPR and ECC shows a section on High-Fidelity Manikins just after the section on CPR Feedback Devices? Does this mean high-fidelity manikins are the only feedback devices?

A: No. The Guideline on the use of High-Fidelity Manikins is totally separate from the Guideline on the use of feedback devices. They are simply on the same page. There is more detail in Part 14: Education of the 2015 AHA Guidelines Update for CPR and ECC.

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- Q: Is the AHA requiring the use of feedback devices in adult CPR training courses to encourage adoption of specific devices or programs?
- A: No. The key driver of this new requirement is science and saving lives – this requirement is not intended in any way to show preference for particular devices or programs.

While some AHA programs and products include feedback devices, such as the RQI program for hospitals and HeartCode VAM, there are many other products on the market to assist all levels of Training Centers in meeting this requirement.

- Q: What are the estimated costs to implement and maintain feedback devices in adult CPR training courses?
- A: Because there are a wide variety of feedback devices available to meet the AHA requirement, at a range of costs, the AHA cannot estimate costs in general to implement and maintain devices. Costs vary depending on the type of feedback devices used and the number of students trained per Training Center or site.
- Q: How many feedback devices should be used in a class?
- A: The recommended ratio of feedback devices is one per manikin (unless the device used is a manikin itself). Please note that any change to the ratio of manikins per students or Instructors in a course agenda could increase or decrease the length of the course. Use of feedback devices may reduce practice time as students will be able to self-correct as feedback is provided in real time.

Additional Information

- Q: How was the healthcare industry be informed about this AHA requirement?
- A: On August 15, 2017, (to coincide with the release of the directive to the AHA Training Network) the AHA distributed a news release about the requirement to US healthcare industry media in order to more publicly share the information and help the industry prepare for any questions from the AHA Training Network.
- Q: What resources are available to help the AHA Training Network understand and implement this requirement?
- A: In addition to this FAQ, the AHA offers the following materials to assist AHA Training Centers and Instructors on the AHA Instructor Network at [Additional Tools>Training Updates](#):
- Full, official directive
 - Flyer outlining essential information on feedback devices and the requirement
 - Bibliography of research studies on feedback devices in CPR training
- Q: Did the AHA receive input from the Training Network on the potential impacts of implementing the use of feedback devices?
- A: Yes. In the spring of 2017, the AHA conducted a survey of Training Center Coordinators and Instructors to gain insight from our Training Network about the use of feedback devices. Based on the responses of nearly 23,000, we were able to identify logistical challenges such as time, which led to the decision to allow more than 15 months for Training Centers to implement this requirement. We also received input from many respondents that supported implementation of feedback devices to remove any subjectivity from the Instructor assessing skills.