



2020 BLS Science Summary Table

This table compares 2015 science with 2020 science, providing a quick reference to what has changed and what is new in the science of basic life support.

BLS topic	2015	2020
Chains of Survival	5 links in the IHCA and OHCA Chains of Survival for adults and pediatric	A sixth link, Recovery, was added to the IHCA and OHCA Chains of Survival for adults and pediatric.
Early Initiation of CPR by Lay Rescuers	Lay rescuers should not check for a pulse and should assume cardiac arrest if an adult suddenly collapses or an unresponsive victim is not breathing normally.	Laypersons should initiate CPR for presumed cardiac arrest because the risk of harm to the patient is low if the patient is not in cardiac arrest.
Changes to the Pediatric Assisted Ventilation Rate	<ul style="list-style-type: none"> Rescue breathing: If there is a palpable pulse 60/min or greater but there is inadequate breathing, give rescue breaths at a rate of about 12 to 20/min (1 breath every 3-5 seconds) until spontaneous breathing resumes. Infant or child CPR with an advanced airway: Ventilate at a rate of about 1 breath every 6 seconds (10/min) without interrupting chest compressions. 	<ul style="list-style-type: none"> For infants and children with a pulse but absent or inadequate respiratory effort: Give 1 breath every 2 to 3 seconds (20 to 30 breaths/min). CPR in infants and children with an advanced airway: Target a respiratory rate range of 1 breath every 2 to 3 seconds (20-30 breaths/min), accounting for age and clinical condition. Rates exceeding these recommendations may compromise hemodynamics.
BLS topic	2020	
Opioid Overdose	A new opioid-associated emergency algorithm has been added for lay rescuers and trained rescuers.	
Cardiac Arrest in Pregnancy	A new cardiac arrest in pregnancy algorithm has been added to address these special cases.	
Real-Time Audiovisual Feedback	Use audiovisual feedback devices during CPR for real-time optimization of CPR performance.	
Systems of Care	<ul style="list-style-type: none"> Mobile phone technology can be used for emergency dispatch systems to alert bystanders to nearby events that may require CPR or AED. Organizations that treat patients with cardiac arrest should collect processes-of-care data and outcomes. 	
Debriefing for Rescuers	Consider debriefing and follow-up for emotional support for lay rescuers, EMS providers, and hospital-based healthcare workers after cardiac arrest events.	
Infant Compressions	<ul style="list-style-type: none"> Single rescuers should compress the sternum with 2 fingers or 2 thumbs placed just below the nipple line. If the rescuer is unable to achieve appropriate depth for infants with 2 fingers or 2 thumbs, use the heel of 1 hand. 	

Abbreviations: AED, automated external defibrillator; BLS, basic life support; CPR, cardiopulmonary resuscitation; EMS, emergency medical services; IHCA, in-hospital cardiac arrest; OHCA, out-of-hospital cardiac arrest; PALS, pediatric advanced life support; PBL, pediatric basic life support.