BLS: The Essentials

CPR Safety 411 | Recognition, high-quality CPR, and effective breaths

1. Recognize arrest and call for help

Check scene safety, responsiveness, breathing, and pulse. Shout for help, activate emergency response, and get an AED. Use a phone on speaker when possible. **Check breathing and pulse together for no more than 10 seconds.** Occasional gasps are not normal breathing.

No definite pulse + no normal breathing: start CPR and use the AED.
Definite pulse + inadequate breathing: give rescue breaths; recheck pulse about every 2 minutes.
Pediatric exception: start CPR if pulse is below 60/min with poor perfusion despite oxygenation and ventilation.

2. Know the numbers

For BLS: infant = under 1 year; child = 1 year to puberty; adult = puberty and older. The ratios below apply **without an advanced airway**.

Skill	Adult	Child	Infant
Pulse check	Carotid (neck)	Carotid or femoral	Brachial (upper arm)
Compression rate	100-120/min	100-120/min	100-120/min
Compression depth	At least 2 in (5 cm); avoid >2.4 in (6 cm)	At least 1/3 chest; about 2 in (5 cm)	At least 1/3 chest; about 1.5 in (4 cm)
One rescuer	30 compressions : 2 breaths	30:2	30:2
Two rescuers	30:2	15:2	15:2
Rescue breathing (pulse present)	1 breath every 6 sec	1 breath every 2-3 sec	1 breath every 2-3 sec

Remember the difference: respiratory arrest has a pulse; cardiac arrest does not have a definite pulse. Gasping does not change the need for CPR when there is no definite pulse.

Call promptly: in the Recognition and Emergency Activation link, recognize the signs of cardiac arrest and call 911 or your facility's emergency number. Send someone for the AED when possible.

3. Make every compression count

Place the person on a firm, flat surface without delaying CPR. For adults, put the heel of one hand on the **lower half of the breastbone** and the other hand on top. For children, use one or two hands. For infants, use **two thumbs with hands encircling the chest, or the heel of one hand**; do not use two fingers.

Full recoil: release pressure between compressions and do not lean. Recoil lets the heart refill with blood. **Minimize pauses:** keep interruptions under 10 seconds. Switch compressors about every 2 minutes, sooner if tired; about 5 cycles applies to 30:2 CPR. High-quality CPR maintains blood flow to the heart and brain.

4. Give breaths that work

Open the airway with head tilt-chin lift. With suspected neck injury, try a jaw thrust; use head tilt-chin lift if it fails. Give each breath over **about 1 second**, just enough for **visible chest rise**. Avoid fast, forceful, or excessive breaths. For bag-mask ventilation, maintain the mask seal and airway; chest rise confirms effectiveness. Having oxygen attached alone does not. Two-person bag-mask ventilation is best when personnel are available.

Understand why these actions matter

Why release fully? The heart must refill between compressions. Leaning reduces that filling.
Why watch the chest? A rising chest shows that a breath reached the lungs. A connected oxygen tube or a squeezed bag alone does not prove it.
Why switch? Fatigue can reduce depth, rate, and recoil before the compressor realizes it.
Why minimize pauses? Interruptions reduce the circulation CPR creates. Avoid repeated unnecessary pulse checks.

The six-link Chain of Survival

1. Recognition and emergency activation
2. High-quality CPR
3. Defibrillation
4. Advanced resuscitation
5. Post-cardiac arrest care
6. Recovery and survivorship

Prevention and preparedness come before the chain. BLS providers directly support the first three links.

When to reassess or stop

If signs of life return, briefly reassess breathing and pulse; resume CPR if arrest persists. Pause briefly for AED analysis or shock and resume as prompted. Stop when emergency personnel take over, the scene becomes unsafe, or you physically cannot continue.

5. Use the AED early and safely

Turn it on and follow its prompts. Expose the chest and attach pads as illustrated. Continue compressions while pads are prepared when another rescuer is available. **Clear for analysis.** If a shock is advised, say "Clear!" and look to confirm nobody is touching before delivering the shock. **Resume CPR immediately** after a shock or no-shock instruction, starting with compressions, for about 2 minutes until the next analysis prompt.

Early defibrillation can stop a shockable rhythm so an organized rhythm may return. It does not guarantee survival or replace CPR. Do not insert an unnecessary pulse check before a shock or immediately after it.

Water: remove the person from water and quickly dry the chest before applying pads.
Hair: shave pad sites if hair prevents contact. If no razor and spare pads are available, use the first set to remove hair, then apply the spare set.
Patch: remove a medication patch under a pad with gloved hands; wipe the area.
Pacemaker/ICD: use the AED; place pads at least 1 inch away from the device.
Under age 8, including infants: use pediatric attenuation if available; use the available AED if not. Never delay for special equipment. If pads could touch, place one on the chest and one on the back.

6. Match choking care to responsiveness

Mild obstruction: if able to speak or cough forcefully, encourage coughing and watch closely.
Responsive adult or child with severe obstruction: alternate **5 back blows and 5 abdominal thrusts**. Use chest thrusts instead of abdominal thrusts during late pregnancy or if you cannot encircle the abdomen.
Responsive infant with severe obstruction: support the head below the body; alternate **5 back blows and 5 chest thrusts using the heel of one hand**. Never give abdominal thrusts to an infant.

Becomes unresponsive: lower safely, activate response/get AED, and start CPR **with compressions**; do not delay for a pulse check in unresponsive choking. Each time you open the airway to give breaths, look for an object. Remove it only if visible and easily reachable. **No blind finger sweeps.** Continue breaths and CPR; stop responsive choking maneuvers once unresponsive.

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CPR Safety 411 | Teamwork and putting the decisions together

7. Work as a team

Clear roles: everyone knows their position and assigned task.
Know your limitations: ask for help early, before the situation worsens.
Constructive intervention: speak up respectfully: "Keep the rate at 100-120" or "Let the chest fully recoil."
Closed-loop communication: acknowledge instructions and confirm when tasks are done. Switch compressors about every 2 minutes with a brief pause.

8. Put the scenario together

Child arrest; response already activated; second rescuer arrives: send them for the AED. Once both are giving CPR, use 15:2.
Alone with a child/infant and must leave to call/get AED: witnessed sudden collapse = activate/get AED first; unwitnessed collapse = about 2 minutes of CPR first. A phone on speaker lets you activate without leaving.
Suspected opioid emergency: give naloxone if available. A pulse with inadequate breathing needs rescue breaths; no definite pulse needs CPR/AED. Naloxone must not delay either.
Drowning: provide CPR with breaths. Trained healthcare responders may start with breaths; do not delay resuscitation. Use the AED when ready.

Quick reasoning check

A partner is leaning on the chest. Respectfully remind them to allow complete recoil; explain that the heart needs to refill.
An infant is choking and then becomes unresponsive. Change from back blows/chest thrusts to CPR with compressions; check for a visible object when opening the airway for breaths.
The AED advises a shock. Clear the person first. Pressing the shock button before confirming everyone is clear is unsafe.
Two rescuers resume child CPR after an AED shock. Use 15:2, starting with compressions, without an extra pulse check.

Keep your resources handy

students.cpr411.com

Find the full BLS guide and other student resources. Questions? training@cpr411.com or (570) 360-9114.

Course companion, not an official AHA publication or replacement for hands-on practice. Concepts reviewed against both supplied 2025 AHA BLS exams, published 2025 AHA/ILCOR guidance, and current source status on October 6, 2026. See the full guide for references.