



- d. For adults and children with unwitnessed cardiac arrest or for whom an AED is not immediately available, it is reasonable that CPR be initiated while the defibrillator equipment is being retrieved and applied and that defibrillation, if indicated, be attempted as soon as the device is ready for use
2. The maximum setting on the defibrillator should be used for initial and subsequent defibrillation attempts. Defibrillation dosing should follow manufacturer's recommendation in the case of biphasic defibrillators. If the manufacturer's recommendation is unknown, use highest setting possible. In the case of monophasic devices, the setting should be 360J (joule) (or 4 J/kg for children)
3. Chest compressions should resume immediately after defibrillation attempts with no pauses for pulse checks for 2 minutes regardless of the rhythm displayed on the cardiac monitor
4. All attempts should be made to prevent avoidable interruptions in chest compressions, such as pre-charging the defibrillator and hovering over the chest, rather than stepping away during defibrillations
5. If feasible, IV or IO access should be obtained. Administer epinephrine during the first or second round of compressions. Prioritize early administration of epinephrine for non-shockable rhythms
6. Continue the cycle of chest compressions for 2 minutes, followed by rhythm analysis and defibrillation of shockable rhythms; during this period, the proper strategy of airway management is currently not defined and many options for airway management exist. Regardless of the airway management and ventilation strategy, consider the following principles:
  - a. The airway management strategy should not interrupt compressions
  - b. Successful resuscitation from cardiac arrest depends primarily on effective, minimally interrupted chest compressions and prompt defibrillation if the patient is in pulseless VT/VF. As opposed to children, an adult's airway management is of secondary importance and should not interfere with compressions and defibrillation. Options for airway management include:
    - i. Passive ventilation:
      1. High flow oxygen is applied via a non-rebreather mask with an oropharyngeal airway
      2. Some oxygen will be entrained with each decompression of the chest
      3. This may be applied for the first 3–4 compression cycles (6–8 minutes), after which one may consider BVM ventilation or placement of an advanced airway
    - ii. BVM ventilation at 10 breaths per minute (1 breath every 10 compressions), applied during the upstroke between compressions, without interrupting the compressions
    - iii. BVM ventilation with 30:2 ventilation to compression ratio: Each 30 compressions, the compressions are paused briefly to allow 2 BVM ventilations, then compressions immediately resumed
      1. **Pediatric Consideration:** For multiple rescuer CPR in children, 15:2 is the recommended compression-to-ventilation ratio (30:2 for single rescuer)
      2. **Pediatric Consideration:** For neonates, 3:1 is the recommended compression-to-ventilation ratio
    - iv. Advanced airway placement:
      1. Either a supraglottic airway or an endotracheal tube may be placed without interruption of compressions
      2. Ventilations are provided at 10 breaths/minute for adults