# Basic Life Support/Cardiopulmonary Resuscitation

## Summary of High-Quality CPR Components for BLS Providers

<table>
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<tr>
<th>Component</th>
<th>Adults and adolescents</th>
<th>Children (age 1 year to puberty)</th>
<th>Infants (age less than 1 year, excluding newborns)</th>
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</thead>
<tbody>
<tr>
<td>Verifying scene safety</td>
<td>Make sure the environment is safe for rescuers and victim</td>
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</table>
| Recognizing cardiac arrest                    | Check for responsiveness  
  No breathing or only gasping (i.e., no normal breathing)  
  No definite pulse felt within 10 seconds  
  (Breathing and pulse check can be performed simultaneously in less than 10 seconds) |                                   |                                                   |
| Activating emergency response system           | If a mobile device is available, phone emergency services (9-1-1) |                                   |                                                   |
| Compression-ventilation ratio without advanced airway | 1 or 2 rescuers  
  30:2 | 1 rescuer  
  30:2 | 2 or more rescuers  
  15:2 |
| Compression-ventilation ratio with advanced airway | Continuous compressions at a rate of 100-120/min  
  Give 1 breath every 6 seconds (10 breaths/min) | Continuous compressions at a rate of 100-120/min  
  Give 1 breath every 2-3 seconds (20-30 breaths/min) |                                                   |
| Compression rate                               | 100-120/min            |                                   |                                                   |
| Compression depth                              | At least 2 inches (5 cm)* | At least one third AP diameter of chest  
  Approximately 2 inches (5 cm) | At least one third AP diameter of chest  
  Approximately 1½ inches (4 cm) |
| Hand placement                                 | 2 hands on the lower half of the breastbone (sternum) | 2 hands or 1 hand (optional for very small child) on the lower half of the breastbone (sternum) | 1 rescuer  
  2 fingers or 2 thumbs in the center of the chest, just below the nipple line  
  2 or more rescuers  
  2 thumb—encircling hands in the center of the chest, just below the nipple line  
  If the rescuer is unable to achieve the recommended depth, it may be reasonable to use the heel of one hand |
| Chest recoil                                   | Allow complete recoil of chest after each compression;  
  do not lean on the chest after each compression |                                   |                                                   |
| Minimizing interruptions                       | Limit interruptions in chest compressions to less than 10 seconds with a CCF goal of 80% |                                   |                                                   |

*Compression depth should be no more than 2.4 inches (6 cm).  
Abbreviations: AED, automated external defibrillator; AP, anteroposterior; CCF, chest compression fraction; CPR, cardiopulmonary resuscitation.  
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