Events Requiring Resuscitation

There are many clinical situations which necessitate resuscitative efforts.

1. CPR is indicated in any situation where both breathing and heartbeat are absent.

2. Rescue breathing is indicated when only breathing is absent, yet while performing rescue breathing, the rescuer continues to monitor the pulse.

- **Cause of Absent Breathing:**
  Several factors can precipitate absence of breath:

1. **Obstruction of the airway:** Breathing will stop from lack of oxygen. The tongue and epiglottis are the most common causes of an airway obstruction. Foreign body obstruction of the airway is also common, especially in children. Food, toys, coins, and the like may become lodged in the airway, making it impossible to inhale or exhale air. If the airway is totally blocked, hypoxia (lack of oxygen) will ensue and cause all breathing efforts to stop. Cardiac arrest will subsequently occur.

2. **Brain injury:** Trauma, stroke, drug overdose, and severe shock can depress the respiratory center and ultimately suppress the respiratory drive.

3. **Chest wall injury with paralysis or severe lung injury.**

4. **Various drugs:** Antipsychotics and antidepressants can act on the respiratory center and suppress the stimulus to breathe.

5. **Electrocution:** May affect both breathing and heartbeat.

6. **Drowning:** Recovery may be complete even after prolonged submersion in extremely cold water.

7. **Cardiac arrest:** Within seconds after cardiac arrest, the respiratory center will be without oxygen and breathing will stop. In cases of respiratory arrest alone, rescue breathing may be enough to restore spontaneous breathing and/or prevent cardiac arrest.
• **Obstructed Airway:**

1. Partial airway obstruction: 
   **DO NOT INTERFERE** if individual is able to speak or infant is able to cry. Victim is capable of good air exchange.

   **NOTE**
   If individual has a weak, ineffective cough, a high-pitched noise while inhaling, increased respiratory difficulty or cyanosis, **TREAT AS COMPLETE AIRWAY OBSTRUCTION**.

2. Complete airway obstruction:
   a. Adult is unable to speak, cough, or breathe; **PERFORM ABDOMINAL OR CHEST THRUSTS** (for pregnant or obese victims).

b. A choking adult becomes unresponsive while you are doing abdominal thrusts. Ease the victim to the floor and send someone to activate the EMS. **Begin CPR**. When you open the airway, look for and remove the object (only if seen) before giving rescue breaths.

c. The best action to relieve severe choking in a responsive infant is to begin cycle of 5 **back slaps**, followed by 5 chest thrusts.

• **Causes of Absent Circulation:**

Factors that can cause or contribute to the absence of circulation include:

3. Cardiac arrest:
   a. Absence of pulse resulting from:
      i. Ventricular fibrillation
      ii. Ventricular standstill or the absence of electrical activity and cardiac muscle contraction
      iii. Pulseless Electrical Activity (the presence of electrical activity, but ineffective muscle contraction). The initial treatment is CPR.

4. Severe shock: due to massive loss of blood.
• **Causes of Absent Circulation (cont.):**

1. **Trauma:** due to injury to the heart.

2. **Drugs:** that cause arrhythmias and/or depression of the contractions of the heart muscle.

3. **Respiratory arrest:** Lack of oxygen to the heart muscle will result in cardiac arrest.