CPR for Infants (Less than 1 Year of Age)

Infant *cardiopulmonary resuscitation* (CPR) consists of **C**irculation**, A**irway **and B**reathing **(C - A- B).** Infant CPR guidelines apply to babies 1 year and younger (not including newly born babies).

1. **Scene Safety.** Quickly look at the area where the ill and/or injured infant is located. Go to help the infant only if it appears that the location (a car, street, room, hillside, etc) is safe to enter.
2. **Check for Response.** Gently tap the infant and call the infant's name if it is known. If the infant responds and is breathing normally but is ill and/or injured, call for emergency services (911 in U.S.) and wait for help. While waiting, recheck the infant frequently.

3. **Shout for Help or in the Case of 2 Rescuers, Get Help. If there is no response and the baby is not breathing or only gasping:**
   - If you are by yourself, shout for help AND a defibrillator or Automated External Defibrillator (AED).
   - If there are 2 rescuers, one begins CPR and the second rescuer calls for emergency services (911 in U.S.). If nearby and easily accessible, the second rescuer should get a defibrillator or AED. After calling for emergency services and possibly getting an AED, the second rescuer should return to the infant as soon as possible and use the defibrillator or AED (if available) or assist with CPR.

   The defibrillator or AED provides a shock to the heart, which can restart the heart. AED devices are found in many public transportation vehicles, airports and large buildings.

4. **Position the Infant.** For best results, the infant should be on a hard surface facing up.
5. **Chest Compressions.** Begin compressions in the center of the chest, one finger width below an imaginary line drawn between the nipples. Compressions may be done by either of 2 methods:
   - Encircle the infant's chest with both hands. Place your thumbs over the center of the infant's chest. Use your thumbs to depress the chest at least 1/3 the total thickness of the chest (about 1.5 inches or 4 cm).
   - Press both thumbs from hands encircling the chest, depressing at least 1/3 the total thickness of the chest (about 1.5 inches or 4 cm).

   Compressions should be at a rate of at least 100 per minute. Allow the chest to return completely to its normal position before the next compression.
   - If there are 2 rescuers, 1 rescuer will perform chest compressions while the second rescuer opens the airway and gives the rescue breaths as described next.

6. **Open the Airway.** It is best if chest compressions are combined with opening the airway and giving rescue breaths. If untrained in providing breaths, or unable to give breaths, the rescuer(s) should just perform chest compressions. If trained and able:
   - If you are by yourself, after every 30 chest compressions, open the airway before giving 2 rescue breaths.
   - If there are 2 trained rescuers, after every 15 chest compressions, the second rescuer opens the airway before giving 2 rescue breaths.

   To open an infant's airway:
   - Place one hand on the infant's forehead and push with your palm to tilt the head back.
   - Place the fingers of the other hand under the bony part of the lower jaw to gently bring the chin forward.

   Remember "Head Tilt, Chin Lift." If the infant has been in a traumatic accident, be careful when moving the head and neck. The infant's head should be tilted only slightly back to a neutral position. Do not place the baby's head into a position past a neutral position. An infant's neck is so flexible that forceful backward tilting might block breathing passages instead of opening them.

7. **Give Rescue Breaths, if Trained and Able.** If trained and able, after openin breaths. Cover the **mouth and nose** of the infant with your mouth. Use 2 small breaths to make the chest rise. The amount of air to fill your cheeks is usually enough to make the infant's chest rise. Each breath should take 1 second. If the chest does not rise, reposition the head, make a better seal over the infant's mouth and nose and try a breath again. If unsuccessful with the mouth over mouth-and-nose breaths, the rescuer(s) can try 2 other breathing methods:

   - The rescuer(s) can give rescue breaths by placing his or her mouth over the infant's **mouth**. If rescue breathing with the mouth over the infant's **mouth**, pinch the infant's nose closed.
   - The rescuer(s) can give rescue breaths by placing his or her mouth over the baby's **nose**. If rescue breathing with the mouth over baby's **nose**, the baby's mouth needs to be closed.
8. **Continue CPR.** After 2 breaths, resume chest compressions immediately.
   - If there are 2 rescuers, the rescuers should change roles every 2 minutes to maintain quality and rate of chest compressions. The switch should take place as quickly as possible (in less than 5 seconds).
9. **Get Help.** If you are by yourself, after 2 minutes of CPR (about 5 cycles), call for emergency services (911 in the U.S.) and attempt to get a defibrillator or an AED. Use the defibrillator or AED as soon as possible or continue CPR (starting with compressions).
10. **Defibrillation.** At any time an AED is available and the infant is unresponsive, not breathing or only gasping, use the AED as soon as possible. Follow directions on the device to deliver 1 shock. For infants, a manual defibrillator is preferred to an AED for *defibrillation* (shocking the heart). Once 1 shock is delivered, it is recommended that 2 minutes of CPR be performed before another shock is delivered.
11. **Continue CPR and Defibrillation.** If the infant is unresponsive, not breathing or gasping only after the use of the AED, continue CPR starting with compressions. Continue with 2 minutes of compressions and breaths followed by defibrillation until the infant starts breathing normally or ambulance personnel take over care.

CPR is intense and strenuous for the rescuer but can be lifesaving. It is understood that rescuers can become tired fairly quickly. It is also understood that attempts by rescuers give a better chance at saving a life than doing nothing and waiting for ambulance personnel to arrive.

After ambulance personnel arrive, it is important to remain on the scene to give trained rescuers a report of what happened. This is always helpful and an important part of the overall care provided to the infant.

Almost all communities maintain programs for training the public in the skills of CPR. It is always helpful to know CPR in the unlikely event that your help may be needed.

See the following site to search for a CPR course near you:
http://www.americanheart.org/presenter.jhtml?identifier=3012360

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