CPR for Newborns

The cardiopulmonary resuscitation (CPR) guidelines for newly born babies is different than CPR for other infants, children and adults. Newborn CPR consists of opening the **A**irway first, then providing assisted **B**reathing and then assisting **C**irculation through chest compressions **(A – B – C)**. A newborn may need CPR and other emergency care if he or she is NOT:

- Full term (40 weeks gestation).
- Crying or breathing.
- Showing good muscle tone.

The emergency care that the newborn may need includes:

- Warmth, Clearing of the Airway (only if necessary), Drying and Stimulation.
- Breathing.
- Chest Compressions.

1. **Scene Safety.** Quickly look at the area where the newborn is located. Go to help the child only if it appears that the location (a car, street, room, hillside, etc) is safe to enter.

2. **Check for Response.** Gently tap the newborn's foot. If the newborn 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 child frequently.

3. **Shout for Help or in the Case of 2 Rescuers, Get Help. If there is no response and the newborn is not breathing or only gasping:**
   - If you are by yourself, shout for help.
   - If there are 2 rescuers, one begins CPR and the second rescuer calls for emergency services (911 in U.S.). After calling for emergency services, the second rescuer should return to the newborn as soon as possible to assist with CPR.

4. **Warmth, Clearing of the Airway (Only if Necessary), Drying and Stimulation**. One minute ("The Golden Minute") is allowed to complete this first step.

- The newborn is wet and can easily become cold. The newborn should be warmed by being placed under a source of heat. If a source of heat is unavailable, the newborn can be:
  - Dried and wrapped in towels (swaddled).
  - Placed skin-to-skin on the mother and cover both with a blanket.
- The newborn's airway needs to be opened. To open a newborn's airway:
  - Place one hand on the newborn'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." The newborn's head should be tilted only slightly back to a neutral position. Do not place the newborn's head into a position past a neutral position. A newborn's neck is so flexible that forceful backward tilting might block breathing passages instead of opening them. Except in rare cases, suctioning (including suctioning with a bulb syringe) is NOT recommended for newborns.

- The newborn should be placed on his or her back or tilted to the side, but not on the stomach. The newborn should be dried with warm, soft towels. Remove any wet towels and replace them with dry towels.
- The newborn is stimulated by massaging and stroking the skin while being dried with the towels.

5. **Give Rescue Breaths.** If the newborn is unresponsive, not breathing or only gasping, breathing will need to be assisted. After opening the airway, give 2 rescue breaths. Cover the **mouth and nose** of the newborn 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 newborn's chest rise. Each breath should take 1 second. If the chest does not rise, reposition the head, make a better seal over the newborn'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 rescue breathing methods:

- The rescuer(s) can give rescue breaths by placing his or her mouth over the newborn's **mouth**. If rescue breathing with the mouth over the newborn's **mouth**, pinch the newborn's nose closed.
- The rescuer(s) can give rescue breaths by placing his or her mouth over the newborn's **nose**. If rescue breathing with the mouth over newborn's **nose**, the newborn's mouth needs to be closed.

6. **Chest Compressions**. After 2 breaths, start chest compressions immediately. 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 newborn's chest with both hands. Place your thumbs over the center of the newborn'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). This method is recommended for newborns.
- Press two fingers down on the chest, depressing at least 1/3 the total thickness of the chest (about 1.5 inches or 4 cm). Use this method if you cannot use your thumbs to do compressions (see above). Allow the chest to return completely to its normal position before the next compression. For a newborn, after every 3 compressions, there should be 1 assisted breath. There should be 90 compressions and 30 breaths during each minute of newborn CPR.
  - 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).

7. **Get Help.** After 2 minutes of CPR, if you are by yourself, call for emergency services (911 in the U.S.).

8. **Continue CPR.** Continue with assisted breaths and compressions until the newborn 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 a rescuer 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 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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