

## SKILL SHEET

# CPR for Infants

### Step 1 Conduct a rapid assessment

- Perform a quick visual survey looking for life-threatening bleeding.
- Check for responsiveness.
- Open the airway and simultaneously check for breathing and a pulse (brachial) for no more than 10 seconds. At the same time, scan the body again for life-threatening bleeding.
- If the patient is not breathing (or only gasping) and their central pulse is absent, begin CPR.



### Step 2 Place the infant on a firm, flat surface

- In a healthcare setting, use a crib with a CPR feature, or place a CPR board under the infant.
- Adjust the crib to an appropriate working height or use a step stool. Lower the crib side rail closest to you.
- In other settings, move the infant to a stable surface above the ground, such as a table or countertop.



#### Practice Note

If drowning is the suspected cause of cardiac arrest, deliver 2 initial ventilations before starting CPR. You may also consider delivering 2 initial ventilations before starting CPR in a child or infant with a primary respiratory etiology.

### Step 3 Position your hands correctly

- Expose the infant's chest to ensure proper hand placement and visualize chest recoil.
- **If you are a single provider or working with a team of multiple providers, use the encircling thumbs technique:**
  - For single provider CPR, stand or kneel to the side of the infant with your hips at a slight angle so you can easily transition between compressions and ventilations. For multiple-provider CPR, stand at the infant's feet.
  - Place both thumbs (side-by-side) on the center of the infant's chest just below the nipple line.
  - Then use the other fingers to encircle the infant's chest toward the back, providing support.



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# CPR for Infants (*continued*)



### Practice Note

Alternatively, during single provider CPR, you may consider using the two-finger technique (two or three fingers placed in the middle of the chest). If the required depth cannot be achieved with either the encircling thumbs technique or the two-finger technique in infants, you may consider using a one-hand technique.



## Step 4 Perform chest compressions

- For an infant, compress the chest to a depth of about 1 ½ inches (3.8 cm) or one-third the anterior-posterior diameter of the chest.
- Provide smooth compressions at a rate of 100 to 120 per minute.
- Allow the chest to fully recoil after each compression. Avoid leaning on the infant's chest at the top of the compression. Compression and recoil times should be approximately equal as this improves the circulation generated by CPR.
- If you are a single provider, perform 30 chest compressions. If you are working with a team of providers, perform 15 chest compressions for an infant.

## Step 5 Seal the mask and open the airway

- Use an infant pocket mask for single-provider CPR or a BVM for multiple-provider CPR. Remember, a two-person technique for BVM ventilation is the preferred methodology.
- Seal the mask and simultaneously open the airway to a neutral position using the head-tilt/chin-lift technique. Avoid any hyperextension or flexion of the neck.
- Or, use the modified jaw-thrust technique if you suspect head, neck or spinal injury.



### Practice Note

Attach supplemental oxygen to the BVM resuscitator as soon as appropriate and when enough resources are available.

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### Step 6 Provide 2 ventilations

- While maintaining the mask seal and open airway, provide smooth, effortless ventilations. Each ventilation should last about 1 second and make the chest begin to rise; allow the air to exit before delivering next ventilation. Avoid excessive ventilation.
- If you do not have a pocket mask or BVM, provide mouth-to-mouth or mouth-to-nose ventilations.



#### Practice Note

If an advanced airway is in place, the 30:2 ratio for single-provider CPR and the 15:2 ratio for multiple-provider CPR do not apply. In this case, one provider delivers 1 ventilation every 2 to 3 seconds, while the other provider delivers continuous chest compressions without pausing for ventilations.



### Step 7 Switch positions every 2 minutes

- When providing CPR with multiple providers, smoothly switch positions about every 2 minutes. This should take less than 10 seconds.
- The compressor calls for a position change by saying “switch” in place of the number 1 in the compression cycle.
- Remember, during multiple-provider CPR, the compressor will stand at the infant’s feet, the ventilator will stand at the infant’s side, and the provider maintaining the airway will stand at the infant’s head.



## SKILL SHEET

# CPR for Infants (*continued*)

### Step 8 Continue CPR

Continue providing CPR until:

- The team leader tells you to stop
- Other trained providers arrive to relieve you
- You see signs of ROSC
- You are presented with a valid DNR order
- You are too exhausted to continue
- The situation becomes unsafe



#### Practice Note

Upon achieving ROSC, supplemental oxygen should be used based on your facility's protocols to maintain a normal oxygen saturation level while avoiding hyperoxygenation. Providers should use a pulse oximeter to monitor oxygen saturation.