

SmartMan Infant Manual – 5.Skills Menu 3. CPR

Current version v2.0

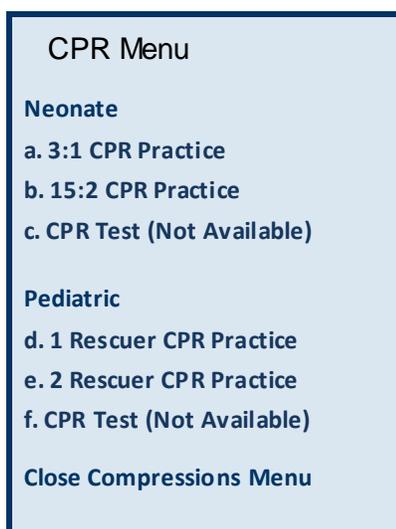
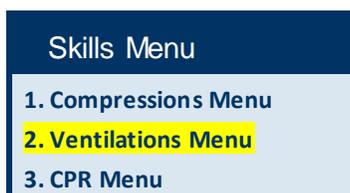
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5 Skills Menu 3. CPR

The Skills Menu is where you select the skills that you will perform. This provides you with the skills needed to perform CPR correctly. In this section we will explore what is required in the CPR Menu.



5.0 Procedure To Select a Skill

There are several ways to determine how the skills are practiced. You can go through each option one at a time, use the space bar to select the default option, or set the short cut to go directly to the skills with a single click.

For a detailed discussion of these options see 5.0_SmartMan_Infant_-_5._Skills_Menu_0._Overview subsection 5.0.1.

5.3 Skill Description

Below is a discussion of how each skill is to be performed. There is a brief discussion on each of the option pages.

5.3.1a. Neonate 3:1 CPR Practice

WHAT YOU DO

In this activity you practice how you perform CPR on a neonate. This is a two person activity where you perform both chest compressions and ventilations. This protocol follows the current AHA guidelines.

The Protocol is

- CPR: 2 cycles of 30 compressions.
Chest compressions are paused for 0.5 seconds while the inhalation is given.
- Compressions
 - Depth: Compress the chest 1/3 to 1/2 chest depth
 - Rate: 120 per minute
 - Recoil: Allow full recoil of the chest.
- Ventilations: This is a small slow puff of air sufficient to make the chest rise. Inhalation should take 0.5 of a second. The compression will assist in expelling the air.
 - Volume: sufficient to see the chest rise
 - Duration: 0.5 seconds on inhalation
 - Number: Give one ventilation

Continue until you have performed 60 chest compressions.

NOTE:

This protocol can be a difficult protocol to perform. It takes practice and is not possible to do effectively without feedback.

HINT

Many people find it helpful to establish a rhythm by counting at the same speed for each compressions and the ventilation.

- compression (1 second)
- compression (1 second)
- compression (1 second)
- ventilation (1/2 second)

Repeat Protocol

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WHAT YOU SEE

As you perform CPR, the feedback area will display a row for compressions and a row for ventilations. You will see colored bars, one bar for each compression and one bar for each ventilation. The color will tell you everything you need to know about how you are performing. The quick key to the colors is on the screen:



See the half page Quick Start file on the SmartMan [colored bars](#) for compressions.

See the half page Quick Start file on the SmartMan [colored bars](#) for ventilations.

5.3.2b. Neonate 15:2 CPR Practice

WHAT YOU DO

This is not the recommended procedure by the AHA for performing CPR on a neonate. However it is mentioned in the AHA guidelines that this protocol might be helpful and can be used.

If you practice this protocol, perform 15 chest compressions at 1/3 to 1/2 depth of the chest, stop chest compressions while two ventilations are provided, then repeat.

The Protocol is

- 4 cycles of 15:2; that is 15 compressions, stop for the two breaths, repeat
- Compressions
 - Compressions Depth: Compress the chest 1/3 to 1/2 chest depth
 - Compressions Rate: Chest compressions are 1 seconds (that is a 0.5 seconds down and 0.5 seconds up).
 - Compressions Recoil: Allow full recoil of the chest.

Ventilations: your ventilation should take 0.5 – 1 second on inhalation. That is, air going in should be given in 0.5 – 1 second seconds and exhalation should be 0.5 – 1 seconds.

- Rate: 40 to 60 ventilations over 1 minute (0.25 seconds in+ 0.25 seconds out)
- Volume: enough air to see the chest rise
- Release of BVM: full rapid release of BVM

This cycle is then repeated.

NOTE

The program will terminate if more than 19 straight compressions without provide a ventilation time

HINT

May people find it difficult to achieve the ventilations. Ventilations are important for the newborn. To practice this protocol, the person performing ventilations must closely focus on the count and getting two small breaths in one after the other.

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WHAT YOU SEE

As you perform you will see colored bars, one bar for each compression and one for ventilations. The color will tell you everything you need to know about how you are performing. The quick key to the colors is on the screen:



See the half page Quick Start file on the SmartMan [colored bars](#) for compressions.

See the half page Quick Start file on the SmartMan [colored bars](#) for ventilations.

5.3.3c Neonate Change Lung Capacity

It is possible to change the lung capacity of the Neonate. To do this, in the Trainer Menu, click on the Neonate Ventilations Activity. You will see the number from 1 to 5 in the middle of the screen. 1 is the least capacity and 5 is the maximum capacity.



Click on the number you wish. This will take a second or two. Then the green lines for the target lung capacity at the bottom of the screen in the feedback area will change position.

Then click on the Menu Button at the top left of the window. All Skills activities will now use that lung capacity setting. Select the skill and perform as described above.

5.3.4e. Pediatric 1 Rescuer CPR

WHAT YOU DO

In this activity you perform chest compressions and ventilations on a Pediatric Infant. The AHA protocol for this is to provide the inhalation over a period of one second:

The CPR Protocol is

- 2 cycles of 30:2; that is 30 compressions, stop compressions while two breaths are given

For this Activity

- Compressions
 - *Depth:* Compress the chest 1/3 to 1/2 chest depth
 - *Rate:* is 100 – 120/minute Chest compression
 - *Recoil:* Allow full recoil of the chest.
 - Two ventilations of 1 second each (0.5 second for inhalation + 0.5 second for exhalation)

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- Ventilations
 - Delivery: your ventilation should take 2 seconds or slightly less from start to finish. That is, air going in should be given in 1 second and exhalation should be 1 second.
 - Rate: 1 second to inhale and 1 second to exhale; second breath follows immediately
 - Volume: enough air to see the chest rise
 - Release of BVM: full rapid release of BVM

This cycle is then repeated.

At the end of the activity, you will be given a score for your performance.

NOTE:

* If during a cycle of 30 compressions, if you stop for more than one second, the program will move to the next cycle.

* If you perform more than 34 compressions without stopping, the program will stop

5.3.5f. Pediatric 2 Rescuer CPR

WHAT YOU DO

In this activity you perform chest compressions and ventilations on a Pediatric Infant. The AHA protocol for this is:

- CPR Protocol
 - 2 cycles of 30:2; that is 30 compressions, stop compressions while two breaths are given
- Compressions
 - Depth: Compress the chest 1/3 to 1/2 chest depth
 - Rate: is 100 – 120/minute Chest compression are ½ of a second (that is a quarter second down and a quarter second up)
 - Recoil: Allow full recoil of the chest.
- Ventilations: each ventilation should take one second for inhalation and 1 second for exhalation. That is, each takes 2 seconds or slightly less from start to finish.
 - Rate: 1 second to inhale and 1 second to exhale; second breath follows immediately
 - Volume: enough air to see the chest rise
 - Release of BVM: full rapid release of BVM

This cycle is then repeated.

At the end of the activity, you will be given a score for your performance.

NOTE:

* If during a cycle of 30 compressions, you stop for more than 1 second, the program will move to the next cycle.

* If you perform more than 34 compressions without stopping, the program will stop

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5.3.6g Pediatric Change Lung Capacity

It is possible to change the lung capacity of the Neonate. To do this, in the Trainer Menu, click on the Neonate Ventilations Activity. You will see the number from 1 to 5 in the middle of the screen. 1 is the least capacity and 5 is the maximum capacity.



Click on the number you wish. This will take a second or two, then the green lines for the target lung capacity at the bottom of the screen in the feedback area will change position.

Then click on the Menu Button at the top left of the window. All Skills activities will now use that lung capacity setting. Select the skill and perform as described above.

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