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5 Skills Menu – 2. Ventilations

The Skills Menu is where you select the skills that you wish to perform. This provides you with the skills needed to perform CPR correctly. In this section we will explore what is required in the Ventilations Menu. The options available to you on this menu will vary slightly depending on the hardware which you purchased.

Skills Menu

1. Compressions Menu
2. Ventilations Menu
3. CPR Menu

Ventilations Menu

Neonate
a. Practice Rescue Breathing
b. Practice CPR Ventilations

Pediatric
e. Practice Rescue Breathing
f. Practice CPR Ventilations

Close Compressions Menu
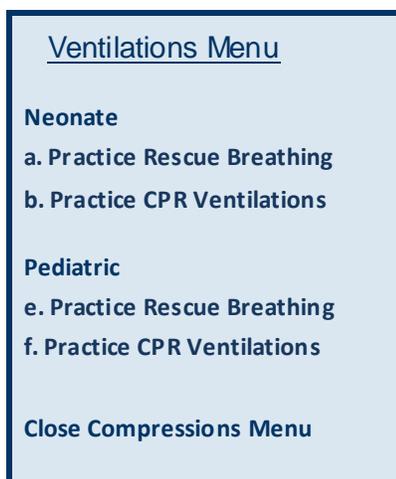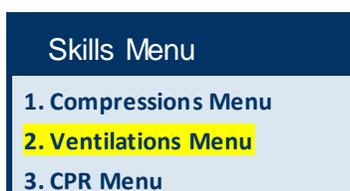
5.0 Procedure To Select a Skill

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.

5.2 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 in the program.

5.2.1a. Neonate Practice Rescue Breathing

WHAT YOU DO

This activity is to practice 1 cycle of rescue breaths on a **neonate**. The AHA guidelines are NOT definitive on this. They recommend that rescue breaths be given the same as for the adult which is to provide an inspiration over a period of one second. However, they also say that you should perform 40 – 60 rescue breaths on a neonate in one minute. Obviously both cannot be correct. Also, for 3:1 CPR, the breath given to the neonate has an inspiration time of 0.5 seconds

The Protocol is

- No compressions
- *Delivery*: your ventilation should take about 0.5 seconds on the inspiration. That is, air going in should be given in 0.5 seconds and exhalation should be 0.5 seconds.
- *Rate:* 40 to 60 ventilations over 1 minute (0.5 second in+ 0.5 second out)
- *Volume*: enough air to see the chest rise
- *Release of BVM*: full rapid release of BVM

NOTE:

A neonate's head is sensitive to the head being in the neutral position in order for air to go into the lungs. In particular pay attention to not moving the head whist in this position and particularly when the air is in the lungs and ready for exhalation. Moving the head away from the neutral position would trap air in the neonate's lungs.

WHAT YOU SEE

As you perform you will see colored bars, one bar for each compression. 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:

The color of the vertical bar will sow for the rate and volume at which you give the ventilation. The color along the bottom of the horizontal bar indicates the timing between ventilations.

See the half page Quick Start file on the SmartMan colored bars for ventilations.

THE CLOSE UP AREA

This display is optional. It shows you the tidal nature of the ventilations. There are three components shown here in the visual graph

1. The rate and volume of inhalation (color, size and slope of curve)
2. The hesitation before the air comes out (the gap between the two curves. This will show if you are holding the BVM and not releasing it)
3. The exhalation (color, size and slope of the curve)

5.2.2b. Neonate Practice CPR Ventilations

WHAT YOU DO

This activity is to practice how you perform the two breaths given during the 15:2 procedure. During real CPR on a patient you only ever give two breaths.

The protocol stipulates that you provide 2 ventilations. That is, you provide a breath in one second (inhalation 0.5 seconds + exhalation 0.5 seconds) Repeat this.

During this practice you are given repeated opportunity to practice these two ventilations. Provide the two breaths then wait a few seconds, for example wait 3 or 4 seconds, then perform another pair of ventilations and repeat until you have mastered the two breaths. This is a practice exercise ONLY.

HINT

Ventilations are important for the newborn but it is difficult to achieve proper ventilations during CPR. This practice is useful to help develop the skills required. Here is how many people find it useful to use:

1. Give 2 breaths
2. Now count or have a partner count as if it were the last few compressions
   (e.g. 12, 13, 14, 15.)
3. Give 2 breaths

Repeat this procedure until the end of the practice.

Press the "Restart" button to do this exercise again.

WHAT YOU SEE

As you perform you will see colored bars, one bar for each of the two ventilations and a horizontal bar for the interval between the 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:

Key	Correct Volume & Inspiration Time	Correct Inspiration time	Too Fast	To Slow
	🟩	🟩	🟧	🟥

The color of the vertical bar will show for the rate and volume at which you give the ventilation. The color of the horizontal bar indicates the timing between ventilations.

See the half page Quick Start file on the SmartMan colored bars for ventilations.

5.2.3c 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.

Ventilation sensitivity: (high - low)
Press to set (current = 5)   1   2   3   4   5

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.

5.2.4e. Pediatric Recue Breathing

WHAT YOU DO

This activity is to practice 1 cycle of rescue breaths on a **Pediatric Infant**. This protocol follows the current AHA guidelines.

The Protocol is

- No compressions are performed
- Delivery:_ the 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*: 12 to 20 ventilations over 1 minute (3 – 5 seconds from the start of one ventilations to the start of the next ventilation)
- *Volume*: enough air to see the chest rise
- *Release of BVM*: allow full rapid release of air from the BVM

NOTE:

These ventilations are slow for the small volume of air going into the lungs. A baby's head is sensitive to the head being in the neutral position in order for air to go into the lungs. In particular pay attention to not moving this position when the air is in the lungs. This will trap air in the baby's lungs.

WHAT YOU SEE

As you perform you will see colored bars, one bar for each compression. 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:

Key   Correct Volume & Inspiration Time   Correct Inspiration time   Too Fast   To Slow

The color of the vertical bar will show for the rate and volume at which you give the ventilation. The color of the horizontal bar indicates the timing between ventilations.

See the half page Quick Start file on the SmartMan colored bars for ventilations.

THE CLOSE UP AREA

This display is optional. It shows you the tidal nature of the ventilations. There are three components shown here in the visual graph

1. The rate and volume of inhalation (color, size and slope of curve)
2. The hesitation before the air starts coming out (the gap between the two curves. This will show if you are holding the BVM and not releasing it)
3. The exhalation (color, size and slope of curve)

5.2.5f. Pediatric Practice CPR Ventilations

WHAT YOU DO

This activity is to practice how you perform the two breaths given during 30:2. During real CPR on a patient you only ever give two breaths.

The protocol stipulates that you provide 2 ventilations. That is, you provide a breath in the 1 second, allow full exhalation of the breath in 1 second, provide the second breath in 1 second and then allow full exhalation over the next 1. There should be no pause between breaths and ideally it should take 4 seconds to give the 2 breaths.

During this practice you are given repeated opportunities to practice these two ventilations. Provide the two breaths then wait a few seconds, say 6 seconds or so, then do another pair of breaths and repeat until you have mastered the two breaths. This is a practice exercise.

The Protocol is

- No compressions are performed
- *Delivery:* your ventilation should take 2 seconds or slightly less from start to finish. That is, air going in for each should be given in 1 second and exhalation should be 1 second.
- *Rate*: give one ventilation and immediately give a second ventilation
- *Volume*: enough air to see the chest rise
- *Release of BVM*: full rapid release of the BVM

HINT

Ventilations are important for a pediatric infant but it is difficult to achieve proper ventilations during CPR. This practice is useful to help develop the skills required. Here is how many people find it useful to use:

1. Give 2 breaths
2. Now count or have a partner count as if it were the last few compressions (e.g. 27, 28, 29, 30)
3. Give 2 breaths

Repeat this procedure until the end of the practice.

Press the "Restart" button to do this again.

WHAT YOU SEE

As you perform you will see colored bars, one bar for each compression. 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:

| Key | Correct Volume & Inspiration Time | Correct Inspiration time | Too Fast | To Slow |

The color of the vertical bar will show the rate and volume at which you give the ventilation. The color of the horizontal bar indicates the timing between ventilations.

See the half page Quick Start file on the SmartMan colored bars for ventilations.

5.2.6g Change Lung Capacity

It is possible to change the lung capacity of the Pediatric Infant. To do this, in the Trainer Menu, click on the Pediatric 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.

Ventilation sensitivity: (high - low)
Press to set (current = 5) | 1 | 2 | 3 | 4 | 5 |

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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