



BASIC LIFE SUPPORT (BLS)



Escambia County, Florida – 1st Responder Medical Protocol

Adult basic life support sequence

Basic life support consists of the following sequence of actions:

- 1 **Make sure the victim, any bystanders, and you are safe.**
- 2 **Check the victim for a response.**

Gently shake his shoulders and ask loudly, 'Are you all right?'

3A. If he responds:

Leave him in the position in which you find him provided there is no further danger.

Try to find out what is wrong with him and get help if needed.

Reassess him regularly.

3B. If he does not respond:

Shout for help.

Turn the victim onto his back and then open the airway using head tilt and chin lift:

- Place your hand on his forehead and gently tilt his head back.
- With your fingertips under the point of the victim's chin, lift the chin to open the airway.

4. Keeping the airway open, look, listen, and feel for normal breathing.

Look for chest movement.

Listen at the victim's mouth for breath sounds.

Feel for air on your cheek.



Approved: 10/01/2011
Version: 3.1

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In the first few minutes after cardiac arrest, a victim may be barely breathing, or taking infrequent, noisy, gasps. This is often termed agonal breathing and must not be confused with normal breathing.

Look, listen, and feel for **no more** than **10 s** to determine if the victim is breathing normally. If you have any doubt whether breathing is normal, act as if it is **not** normal.

5A. If he is breathing normally:

Turn him into the recovery position (**see below**).

Summon help from the ambulance service by mobile phone. If this is not possible, send a bystander. Leave the victim only if no other way of obtaining help is possible.

Continue to assess that breathing remains normal. If there is any doubt about the presence of normal breathing, start CPR (5B).

5B. If he is not breathing normally:

Ask someone to call for an ambulance and bring an AED if available. If you are on your own, use your mobile phone to call for an ambulance. Leave the victim only when no other option exists for getting help.

Start chest compression as follows:

- Kneel by the side of the victim.
- Place the heel of one hand in the centre of the victim's chest (which is the lower half of the victim's sternum (breastbone)).
- Place the heel of your other hand on top of the first hand.
- Interlock the fingers of your hands and ensure that pressure is not applied over the victim's ribs. Do not apply any pressure over the upper abdomen or the bottom end of the sternum.
- Position yourself vertically above the victim's chest and, with your arms straight, press down on the sternum 5 - 6 cm.



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- After each compression, release all the pressure on the chest without losing contact between your hands and the sternum. Repeat at a rate of 100 - 120 min.
- Compression and release should take an equal amount of time.

6A. **Combine chest compression with rescue breaths:**

After 30 compressions open the airway again using head tilt and chin lift.

Pinch the soft part of the victim's nose closed, using the index finger and thumb of your hand on his forehead.

Allow his mouth to open, but maintain chin lift.

Take a normal breath and place your lips around his mouth, making sure that you have a good seal.

Blow steadily into his mouth whilst watching for his chest to rise; take about one second to make his chest rise as in normal breathing; this is an effective rescue breath.

Maintaining head tilt and chin lift, take your mouth away from the victim and watch for his chest to fall as air comes out.

Take another normal breath and blow into the victim's mouth once more to give a total of two effective rescue breaths. The two breaths should not take more than 5 s. Then return your hands without delay to the correct position on the sternum and give a further 30 chest compressions.

Continue with chest compressions and rescue breaths in a ratio of 30:2.

Stop to recheck the victim only if he starts to show signs of regaining consciousness, such as coughing, opening his eyes, speaking, or moving purposefully AND starts to breathe normally; otherwise **do not interrupt resuscitation.**

If the initial rescue breath of each sequence does not make the chest rise as in normal breathing, then, before your next attempt:



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Check the victim's mouth and remove any visible obstruction.

Recheck that there is adequate head tilt and chin lift.

Do not attempt more than two breaths each time before returning to chest compressions.

If there is more than one rescuer present, another should take over CPR about every 1-2 min to prevent fatigue. Ensure the minimum of delay during the changeover of rescuers, and do not interrupt chest compressions.

6B. Compression-only CPR

If you are not trained to, or are unwilling to give rescue breaths, give chest compressions only.

If chest compressions only are given, these should be continuous at a rate of 100 - 120 min.

Stop to recheck the victim only if he starts to show signs of regaining consciousness, such as coughing, opening his eyes, speaking, or moving purposefully AND starts to breathe normally; otherwise **do not interrupt resuscitation.**

7. Continue resuscitation until:

qualified help arrives and takes over,

the victim starts to show signs of regaining consciousness, such as coughing, opening his eyes, speaking, or moving purposefully AND starts to breathe normally, OR

you become exhausted.



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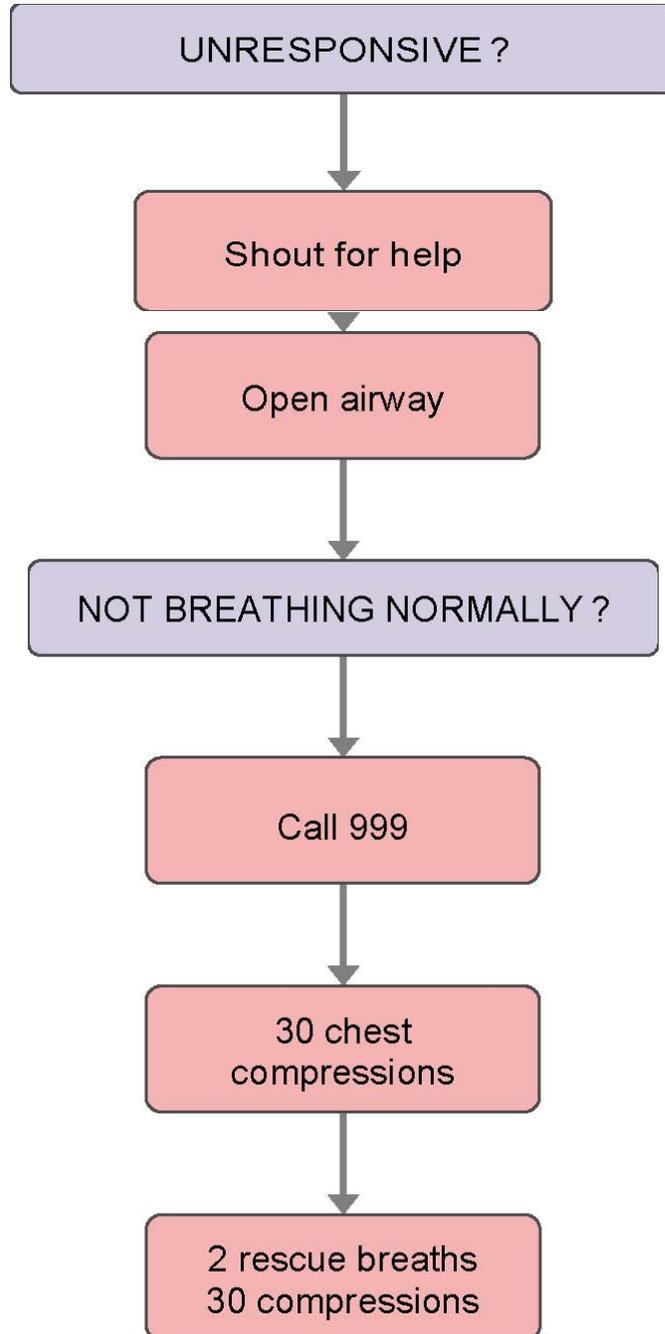

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Choking

Recognition

Because recognition of choking (airway obstruction by a foreign body) is the key to successful outcome, it is important not to confuse this emergency with fainting, heart attack, seizure, or other conditions that may cause sudden respiratory distress, cyanosis, or loss of consciousness.

Foreign bodies may cause either mild or severe airway obstruction. The signs and symptoms enabling differentiation between mild and severe airway obstruction are summarised in the table below. It is important to ask the conscious victim 'Are you choking?'

General signs of choking

- Attack occurs while eating,
- Victim may clutch his neck
- *Response to question 'Are you choking?'*
- Victim unable to speak
- Victim may respond by nodding

Other signs

- Victim unable to breathe
- Breathing sounds wheezy
- Attempts at coughing are silent
- Victim may be unconscious

Signs of mild airway obstruction

- *Response to question 'Are you choking?'*



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- Victim speaks and answers yes

Other signs

- Victim is able to speak, cough, and breathe

Sequence for the treatment of adult choking

(This sequence is also suitable for use in children over the age of 1 year)

1. If the victim shows signs of mild airway obstruction:

Encourage him to continue coughing, but do nothing else.

2. If the victim shows signs of severe airway obstruction and is conscious:

Give up to five back blows.

- Stand to the side and slightly behind the victim.
- Support the chest with one hand and lean the victim well forwards so that when the obstructing object is dislodged it comes out of the mouth rather than goes further down the airway.
- Give **up to** five sharp blows between the shoulder blades with the heel of your other hand.

Check to see if each back blow has relieved the airway obstruction. The aim is to relieve the obstruction with each blow rather than necessarily to give all five.

If five back blows fail to relieve the airway obstruction give up to five abdominal thrusts.

- Stand behind the victim and put both arms round the upper part of his abdomen.
- Lean the victim forwards.
- Clench your fist and place it between the umbilicus (navel) and the bottom end of the sternum (breastbone).



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- Grasp this hand with your other hand and pull sharply inwards and upwards.
- Repeat up to five times.
- If the obstruction is still not relieved, continue alternating five back blows with five abdominal thrusts.

3. If the victim becomes unconscious:

- Support the victim carefully to the ground.
- Call an ambulance immediately.
- Begin CPR (from 5B of the adult BLS sequence). Healthcare providers, trained and experienced in feeling for a carotid pulse, should initiate chest compressions even if a pulse is present in the unconscious choking victim.

Following successful treatment for choking, foreign material may nevertheless remain in the upper or lower respiratory tract and cause complications later.

Victims with a persistent cough, difficulty swallowing, or with the sensation of an object being still stuck in the throat should therefore be referred for an immediate medical opinion.



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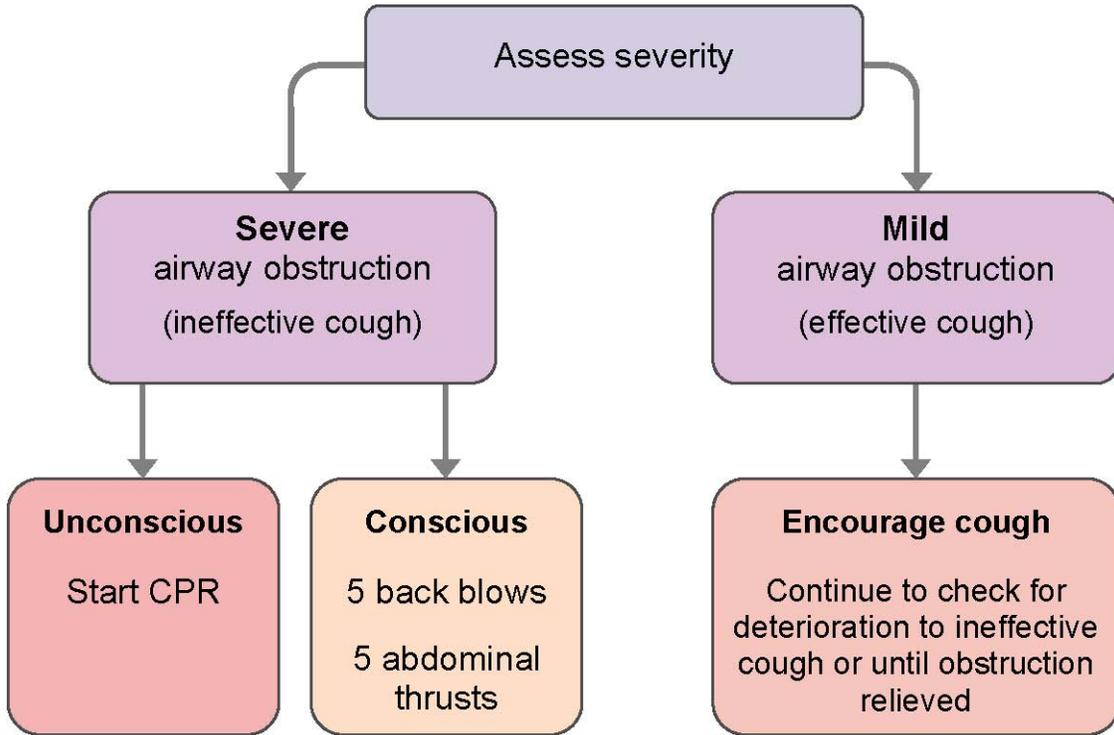


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Adult choking treatment algorithm



Resuscitation of children and victims of drowning

Both ventilation and compression are important for victims of cardiac arrest when the oxygen stores become depleted: about 2 - 4 min after collapse from ventricular fibrillation (VF), and immediately after collapse for victims of asphyxial arrest.

Previous guidelines tried to take into account the difference in causation, and recommended that victims of identifiable asphyxia (drowning; trauma; intoxication) and children should receive 1 min of CPR before the lone rescuer left the victim to get help.

But most cases of sudden cardiac arrest out of hospital occur in adults and are of cardiac origin due to VF (even though many of these will have changed to a non-shockable



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rhythm by the time of the first rhythm analysis).

These additional recommendations, therefore, added to the complexity of the guidelines whilst applying to only a minority of victims.

Many children do not receive resuscitation because potential rescuers fear causing harm. This fear is unfounded; it is far better to use the adult BLS sequence for resuscitation of a child than to do nothing. For ease of teaching and retention, laypeople should be taught to use the adult sequence for children who are not responsive and not breathing normally, with the single modification that the chest should be compressed by one third of its depth.

However, the following minor modifications to the adult sequence will make it even more suitable for use in children:

- Give 5 initial rescue breaths before starting chest compressions (adult BLS sequence of actions 5B)
- If you are on your own, perform CPR for 1 min before going for help.
- Compress the chest by one third of its depth. Use two fingers for an infant under 1 year; use one or two hands for a child over 1 year as needed to achieve an adequate depth of compression.

The same modifications of five initial breaths, and 1 min of CPR by the lone rescuer before getting help, may improve outcome for victims of drowning. This modification should be taught only to those who have a specific duty of care to potential drowning victims (e.g. lifeguards).

If supplemental oxygen is available, and can be brought to the victim and used without interruption in CPR (e.g., by attaching to a resuscitation face mask), it may be of benefit.

Drowning is easily identified. It can be difficult, on the other hand, for a layperson to recognise when trauma or intoxication has caused cardiorespiratory arrest.

If either cause is suspected the victim should be managed according to the standard BLS protocol.



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