



AUSTRALIAN RESUSCITATION COUNCIL

GUIDELINE 6

COMPRESSIONS

This guideline is applicable to adults, children and infants.

RECOGNITION OF THE NEED FOR CHEST COMPRESSIONS

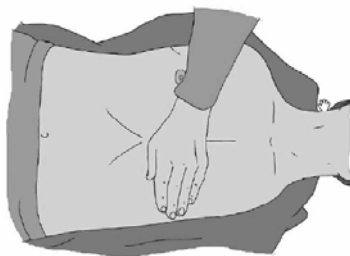
Rescuers should start chest compressions if the victim has no signs of life (i.e. unconscious, unresponsive, not moving and not breathing normally). Checking the carotid pulse is an inaccurate method of confirming the presence or absence of circulation.^{1,2} Lay rescuers should not attempt to palpate a pulse to determine whether or not to give chest compressions.^{1,2}

[Class A; LOE III-2]

LOCATING THE SITE FOR CHEST COMPRESSIONS

There is insufficient evidence for or against a specific hand position for chest compressions during CPR in adults.¹ The Australian Resuscitation Council recommends the lower half of the sternum as the compression point in all age groups. [Class A; LOE Expert Consensus Opinion]

Direct visualization may be used to locate the compression point. For the ease of teaching the lower half of the sternum equates with the “centre of the chest”. [Class A; LOE Expert Consensus Opinion] This simple method will minimize pauses between ventilations and compressions and may encourage more people to attempt CPR.¹ Avoid compression beyond the lower limit of the sternum. Compression applied too high is ineffective and if applied too low may cause regurgitation and/or damage to internal organs.



(Reproduced Courtesy of European Resuscitation Council)

METHOD OF COMPRESSION

Infants

In infants the two finger technique should be used by the rescuer whether they be lay rescuers, healthcare professionals or trained first responders in order to minimise transfer time from compression to ventilation.² Having obtained the compression point the rescuer places the pulps of the two fingers on this point and compresses the chest. [Class A; LOE Expert Consensus Opinion]



(Reproduced Courtesy of European Resuscitation Council)

Children and Adults

Having obtained the compression point, the rescuer places the heel of their hand on this point, with the fingers parallel to the ribs and preferably slightly raised, so that pressure will not be exerted directly on the ribs. The rescuer places their other hand securely on top of the first. All pressure is exerted through the heel of the bottom hand and the rescuer's body weight is the compressing force. Therefore, the rescuer's shoulder should be vertically over the sternum and the compressing arm kept straight.^{1,2}



(Reproduced Courtesy of European Resuscitation Council)

Victims requiring chest compressions should be placed supine on a firm surface (e.g. backboard or floor) before chest compressions to optimize the effectiveness of compressions.^{1,2} Compressions should be rhythmic with equal time for compression and relaxation. The rescuer must avoid either rocking backwards and forwards, or using thumps or quick jabs. Rescuers should allow complete recoil of the chest after each compression.^{1,2}

DEPTH OF COMPRESSION

The lower half of the sternum should be depressed by one third of the depth of the chest with each compression. This equates to at least 4-5cm in adults. [Class A; LOE Expert Consensus Opinion]

RATE OF CHEST COMPRESSIONS

Rescuers should perform chest compressions for all ages at a rate of approximately 100 compressions per minute (almost 2 compressions/second).^{1,2} This does not imply that 100 compressions will be delivered each minute since the number will be reduced by interruptions for breaths given by rescue breathing. [Class A; LOE Expert Consensus Opinion]

REFERENCES

1. Consensus on Resuscitation Science & Treatment Recommendations. Part 2: Adult Basic Life Support. Resuscitation 2005; 67: 187-201.
2. Consensus on Resuscitation Science & Treatment Recommendations. Part 6: Paediatric Basic and Advanced Life Support. Resuscitation 2005; 67: 271-291.