

7.1 Patient assessment

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Word association

In the boxes below, write down some words you think of when you hear the term 'health assessment'.

Physical exam	Blood pressure	Respiration rate
Body temperature	Pulse rate	Check up



Activity 1

Conducting a basic health assessment

Write a list of medical instruments you would need to do a basic health assessment.

* Thermometer

* Pulse oximeter

* Sphygmomanometer

* Tongue depressor



Activity 2

The vital signs

Write the normal rate of the following vital signs for an adult.

Vital sign	Normal rate
Blood pressure	120/80 mm Hg
Body temperature	36.5°C to 37.2°C
Respiration	12-20 breaths per min
Pulse	60-100 beats per minute



Research: Factors that influence the vital signs

Research and explain some factors that may cause the normal rates of the vital signs to be different.

- * The environment can influence a person's body temperature, especially if it's very cold or very hot.
- * Medical conditions can influence pulse rate.
- * Age influence blood pressure.
- * Temperature can influence respiration rate.



Activity 3

Measuring the vital signs

In pairs, take turns at measuring each other's vital signs. Record your own readings and write down how you compare to the normal rates.

Body temperature:

36.9°C - Normal

Pulse rate:

72 - Normal

Respiration rate:

16 - Normal

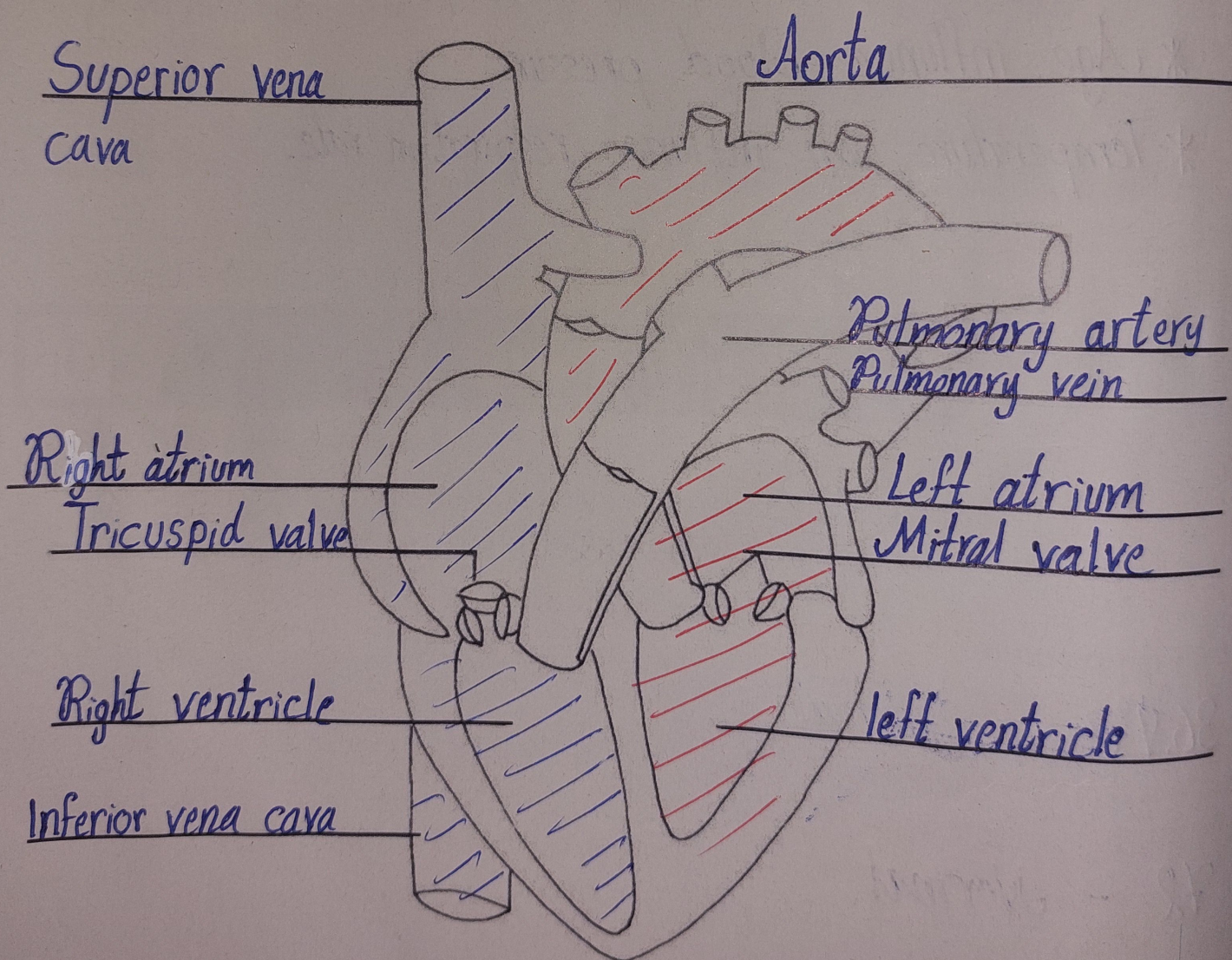
Blood pressure:

143/92 mm Hg - Higher than normal (Hypertension)

7.2 The heart

STARTER Label the heart

Label as many parts of the heart as you can. You can use the diagram in the textbook to help you. Then, colour the diagram to show which side of the heart is oxygenated and which is deoxygenated.





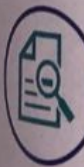
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Activity 4

Fill in the blanks

Complete the sentences below by filling in the blanks. You should remember this from last term's anatomy and physiology unit, but you can also use your textbook to help you.

1. The heart is about the size of a hand fist.
2. valves open and close so that the blood can only flow one way.
3. The left atrium and ventricle contain oxygenated blood.
4. The Right atrium and ventricle contain deoxygenated blood.
5. The Right ventricle fills with blood from the right atrium.
6. The left ventricle fills with oxygenated blood from the left
..... atrium
7. Deoxygenated blood travels from the heart to the body to become oxygenated again.



Research: The causes of cardiac arrest

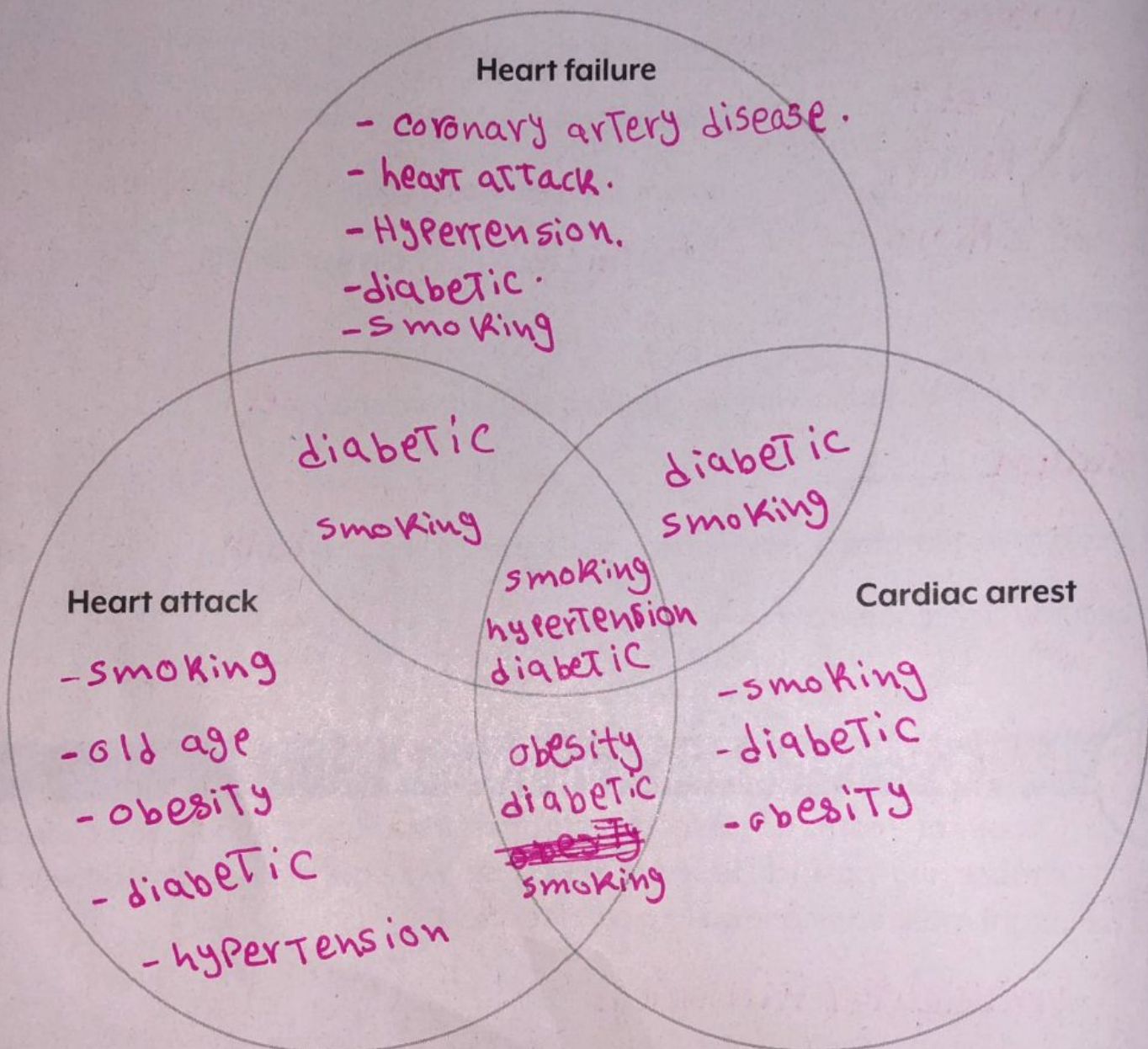
Choose one of the causes of cardiac arrest from your textbook. You cannot choose heart attack. Research the cause, write down what it is and why it might make someone go into cardiac arrest.

Ventricular fibrillation
during it, The lower chambers contract in a very
rapid and uncoordinated manner, As a result
The heart doesn't pump blood to the body, so it's
The most frequent cause of cardiac arrest.



Research: Risk factors

Research the risk factors of heart failure, cardiac arrest, and heart attack. Complete the Venn diagram with your findings...



Activity 5

Differences

Discuss in pairs what the difference is between a heart attack and a cardiac arrest. Think about the causes, the signs and symptoms, and risk factors of both. Create a poster highlighting these differences.

Heart attack

Circulation issue



Cause

- Blocked blood supply to the heart



Warning signs

- Chest pains
- Shortness of breath
- Nausea and sweating



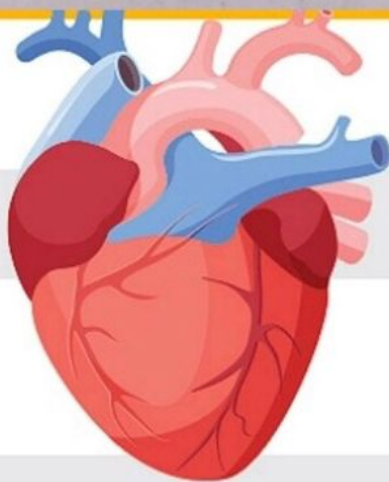
Victims response

- Usually remains awake and able to talk



Risk of death

- Many survive with early and appropriate treatment



Sudden cardiac arrest

Electrical issue



Cause

- Abnormal heart rhythm called ventricular fibrillation



Warning signs

- Rarely any warning signs



Victims response

- Loses consciousness or is found unconscious
- May be found gasping for air



Risk of death

- Death can occur within minutes without shock from an AED

<https://t.me/h11Ad36>

7.3 The purpose of CPR



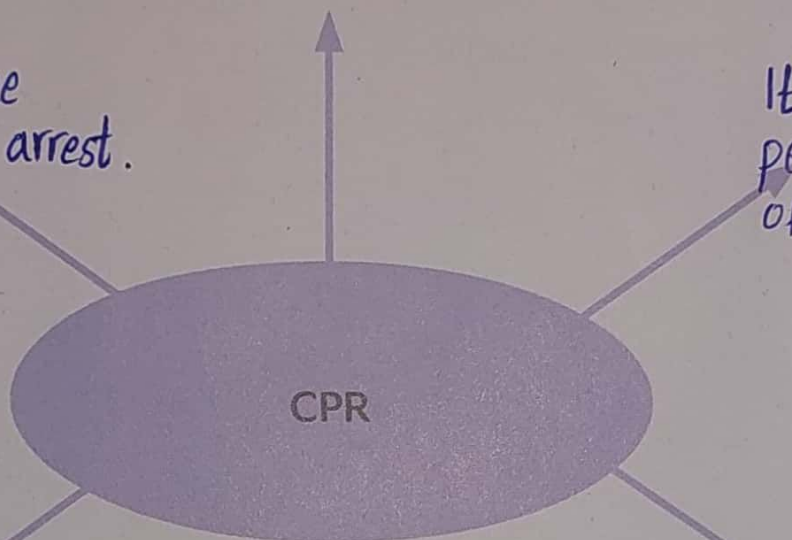
Discussion: What is CPR?

What do you know about CPR? Do you know what CPR stands for and what it involves? Create a spider diagram with your ideas.

Stands for: *Cardiopulmonary resuscitation.*

Used on someone who is cardiac arrest.

It triple a person's chance of survival.



It helps to pump blood around the person's body.

The 2nd step in the chain of survival



Activity 6

Find the wrong answer

Below are the six steps of the chain of survival. One of the steps is incorrect. Can you identify which one is incorrect? Tick your answer.

- ☐ 1. Recognise the emergency and call 998.
- ☒ 2. Leave the scene of the emergency as soon as possible.
- ☐ 3. Complete rapid defibrillation as soon as it is available.
- ☐ 4. Provide basic and advanced emergency medical care.
- ☐ 5. Provide advanced life support and post-cardiac arrest care.
- ☐ 6. Provide rehabilitation treatment to aid recovery.



In the space below, draw the six steps in the chain of survival.



Research: CPR courses in your emirate

Find out where you can go to in your emirate to do a CPR course. Answer the following questions:

- ⊙ What is the name of the course?
- ⊙ How long will the course last?
- ⊙ How much does it cost?
- ⊙ Which organisation approves the course?

* Basic Life Support Course.

* Full - 1 Day Provider.

* 390 AED (106 USD).

* Cleveland Clinic Abu Dhabi.

7.4 The initial steps to take before providing CPR

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Order the steps

Look at the steps below. They are the initial steps that you need to follow at the scene of an accident. Put them in the correct order by numbering them 1-5.

- 4 Call an ambulance and get an AED if available.
- 2 Tap the casualty and ask them if they can hear you; check for responsiveness.
- 5 Check for breathing.
- 1 Check that the scene is safe.
- 3 Shout for help.



Activity 8

Responsive or unresponsive?

Write beside each description whether the person is responsive or unresponsive.

	Responsive or unresponsive
The person does not move, speak, blink or otherwise react when you tap them.	unresponsive
The person blinks when you tap them.	Responsive
The person moves their head when you tap their shoulders.	Responsive
The person speaks when you tap them.	Responsive

Read the following scenarios below and write whether CPR is required or CPR is not required.

1. The casualty is not responsive but breathes normally.

CPR not needed.

2. The casualty is responsive and breathing.

CPR not needed.

3. The casualty is not responsive and not breathing.

CPR is needed.

4. The casualty is not responsive and is only gasping.

CPR is needed.

7.5 Administering CPR

STARTER

The correct hands

Circle which image below is the correct way to hold your hands while giving chest compressions to an adult.



Activity 11

Practise giving compressions

You are now going to practise giving compressions on a manikin. Make sure to carefully follow each step. Think about the depth and speed of your compressions. How did you find giving compressions? Was it easy or difficult? What did you find difficult?

I found it easy, but at the beginning
I found difficulty at controlling the depth
and speed of my compressions.



Now that you have practised it, write the seven steps of giving chest compressions. Try to do this without using your textbook.

Make sure the person is lying on their back, on a firm, flat surface.



Make sure clothes are not in the way of giving compressions.



Place the heel of one hand on the center of their chest; over the lower part of the breastbone. Put your other hand on top of your first hand.



Push directly down at least 5cm.



Keep repeating this at a rate of 100-120 compressions per minute. Make sure you count to ensure you are doing enough.



Make sure that the chest fully rises to its normal position between each compression.



Avoid stopping compression for more than 10 seconds, even when you are giving breaths.



Activity 15

Match the numbers

Match the list of numbers on the left with the description on the right. You need to remember these when administering CPR.

30	How far down must you push the chest in centimetres?
10	What is the number of compressions to complete before giving breaths?
5	After each set of compressions, give this number of breaths.
100-120	Do not stop compressions for more than this number of seconds.
2	What is the rate of compressions per minute?

Handwritten arrows indicate the following matches:

- 30 to How far down must you push the chest in centimetres?
- 10 to What is the number of compressions to complete before giving breaths?
- 5 to After each set of compressions, give this number of breaths.
- 100-120 to Do not stop compressions for more than this number of seconds.
- 2 to What is the rate of compressions per minute?



Activity 14

Why use a barrier device?

Suggest three things that a barrier device, such as a pocket mask, would protect you from when giving breaths during CPR.

* Disposable gloves.

* Ventilation masks.

* Eye shields.

Look at the images below. They show somebody demonstrating how to open the airway of a patient. Describe which step is being carried out in each image.



2 - Gently tilt the head back and lift the chin up.



1 - Put one hand on the forehead and the fingers of your other hand on the solid part of the chin.

You are now going to practise opening the airway and giving breaths using the manikin. Remember to open the airway before doing so and follow each of the steps carefully.

How did you find giving breaths? Was it easy or hard? What did you find hard?

At the beginning it was hard because I was nervous because it was my first time, but by the time it became easier.



Activity 17

Putting it all together

Now that you have practised giving compressions and giving breaths, it is time to put it all together. In pairs, use a manikin.

You should do thirty compressions (at a rate of 100-120 per minute), then give two breaths. Make sure you do not stop compressions for more than ten seconds.

Get your partner to time you with a stopwatch to make sure you are doing CPR at the correct rate.

How did you do?

I tried to do it once and twice and I failed, but in the third try I did great.



Activity 18

Fill in the blanks

Fill in the blanks in the paragraph about automated external defibrillators (AEDs).

An automated external defibrillator (AED) delivers an electric shock through the chest to the heart. Combining CPR with the use of an AED is the best chance of saving the life of a person who is in cardiac arrest. AEDs are safe and easy to use, once you turn it on it will tell you what to do.



Activity 19

Using an AED



The sentences below describe how to use an AED. Read each one and write the name of the step that it is describing.

1. Make sure everyone stays clear of the person and nobody touches them.

Clear the casualty.

2. Peel the back off the pads and attach them to the person's bare chest.

Attach the pads.

3. Press the on button or lift the lid.

Turn on the AED.

4. Resume CPR by giving compressions. The AED will continue to give prompts.

Resume CPR.



Activity 20

True or false?



Answer true or false to the following questions.

	True	False
An AED will analyse whether a person requires a shock and will instruct you if they do.	✓	
You can place the pads of an AED anywhere you wish on a person's chest.		✓
You should stop CPR after 5 minutes.		✓
You should not stop CPR until the casualty reacts or a medical professional arrives.	✓	
You should not use an AED on a person who is lying in water.	✓	

7.6 CPR for children and infants

STARTER CPR for an infant

In the table below, circle which is the correct way to hold your hands when giving chest compressions to an infant.



Activity 21

Similarities and differences

On one side of the table below, write down the similarities between giving CPR to an infant and to an adult. On the other side write the differences between them.

Similarities	Differences
Place in flat surface	Place Two fingers in infant chest place heel of one hand on adult chest
30 compressions	Push 4cm on the chest infant. Push 5cm on the adult chest
rate of 100 to 200 compressions per min	

Activity 22

CPR for an infant

Using the baby manikin, practise all the steps of CPR. Remember to think about what you need to do differently compared to an older child or adult. How did you find giving CPR to the baby? What was different from doing it for an adult?

when giving CPR to a baby, we should think about: Their nose and mouth is smaller, Their airway can get blocked by smaller object, The tongue takes more space in mouth, The chest muscles are not fully developed, chest cavity and lung volumes are smaller

Activity 23

A-Z keywords

Think about everything you have learned in Unit 7. Write down a keyword or a word related to the unit for as many letters of the alphabet as you can. The letters X and Z have been left out.

Assessment	Blood pressure	Cardiac arrest	Digital thermometer
Emergency	Forehead	Gasp	Heart failure
Inferior vena cava		K	Lungs
Medical	Normal Breathing	O	Pocket mask
Qualification	Response	Symptoms	Thrombosis
Unconscious	Vital	Wheezing	Y

End of unit summary

1. Name the four vital signs and explain how they are measured. For each of the vital signs, list the normal rate for a healthy adult.

1- body temperature - By Thermometer, The healthy adult temperature

$36.5^{\circ}\text{C} \rightarrow 37.2^{\circ}\text{C}$

2- Respiration rate - Counting the number of breathing per min.

The healthy adult normal respiration 12-20 breath per min.

3- Blood Pressure - the healthy adult blood pressure 120/80 mmHg

4- Pulse rate - The normal pulse rate for adult is 60-100 beats per min.

2. List each link in the chain of survival.

1- Activation of Emergency Response,

2- High-quality CPR

3- Defibrillation

4- Advanced Resuscitation

5- Post-Cardiac Arrest Care.

6- Recovery

or a casualty?

That can block the air way

4. Put the following steps of CPR in the correct order from 1-7.

Push directly down at least 5cm.	4
Make sure clothes are not in the way of compressions.	2
Do not stop compressions for more than ten seconds, even when giving breaths.	7
Place the heel of one hand on the centre of their chest, over the lower part of the breastbone. Put your other hand on top of your first hand.	3
Make sure the person is lying on their back, on a firm, flat surface.	1
Make sure that the chest fully rises to its normal position between each compression.	6
Keep repeating this at a rate of 100-120 compressions per minute. Make sure you count compressions to ensure you are doing enough.	5