



Emergency First Aid at Work



The aims of first aid

- Preserving life
- Prevent the situation from worsening
- Promoting recovery



The role of the first aider

Assess the situation

- What has happened?
- How many casualties?
- Check for signs and symptoms

Protect from dangers

- Assess for further danger
- Protect yourself first!



The role of the first aider

Get help

- Ask bystanders for assistance
- Which emergency service do you need?
- Recognise your limitations

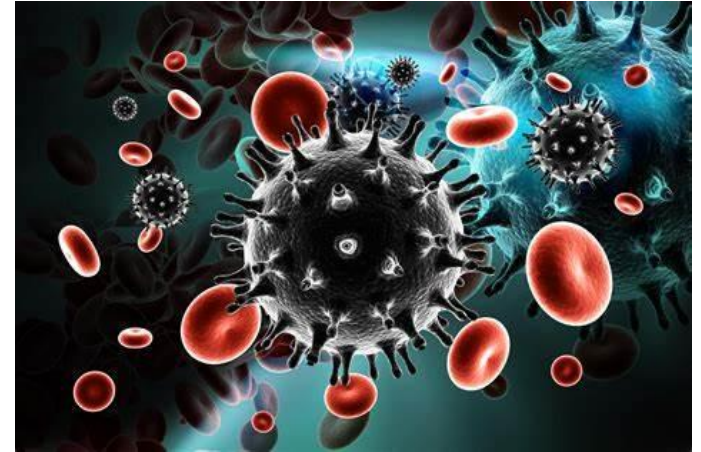
Prioritise treatment

- Most urgent thing first
- Most urgent person first

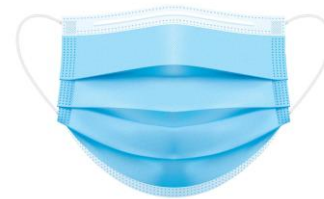


Minimising infection

- Wash your hands
- Wear gloves
- Wear protective clothing (PPE)
- Cover cuts or open wounds
- Dispose of contaminated waste properly
- Use sterile, undamaged and in date dressings



What should we find in our First aid kits?



What shouldn't we find in our First aid kits?

- Drugs
- Needles

Scene survey

What things should you consider before treating anyone?

- What happened?
- Further danger?
- Can you cope?
- Number of casualties?
- Emergency services?
- Who needs help first?



The primary survey

D R A B C

Danger

- Ensure that you, the casualty or casualties and any bystanders are safe.
- Don't put your own life at risk.

Response

- Check that the casualty is conscious.
- Any unconscious casualties take priority of treatment.
- If an unconscious casualty is on their back their airway could be at risk.

D R A B C

Airway

- Identify and treat any life-threatening airway problems.
- If the casualty is unconscious, tilt the head back to open the airway.
- If the airway is clear, move on to the next step - BREATHING

Breathing

- Identify and treat any life-threatening breathing problems.
- If the casualty is unconscious and not breathing – START CPR
- Once any life-threatening breathing problems have been treated or ruled out move on to the next step - CIRCULATION

D R A B C

Circulation

- Identify and treat any life-threatening circulation problems.
- When life threatening circulation problems have been ruled out, the primary survey is complete.

Life-threatening conditions

Airway

Airway swelling, blockage or narrowing could be caused by:

- The Tongue.
- Strangulation.
- Choking.
- Hanging.
- Anaphylaxis.



Life-threatening conditions

Breathing

Breathing problems can be caused by:

- Asthma.
- A chest injury.
- A collapsed lung.
- Cardiac arrest.
- Anaphylaxis.
- Poisoning.



Life-threatening conditions

Circulation

Circulation problems can be caused by:

- Heart Attack.
- Heart Failure.
- Severe bleeding.
- Poisoning.
- Anaphylaxis.
- Cardiac arrest.



Resuscitation (CPR)

WARNING:

In the first few minutes after cardiac arrest, a casualty may be barely breathing, or taking infrequent, noisy gasps.

*These are known as **agonal gasps** and should not be confused with normal breathing.*

If you are in doubt, start CPR.



Resuscitation (CPR)

BONDI BEACH

<https://www.youtube.com/watch?v=BvIN1jgojlg>



Resuscitation (CPR)

Sometimes a casualty can have a seizure-like episode when the heart stops.

Carefully consider if the casualty is breathing normally.



Resuscitation (CPR)

AED in Action | A 3D look inside
the body - YouTube



Child and baby CPR

First aiders can use the adult sequence of resuscitation on a child or baby who is unresponsive and not breathing normally.



Child and baby CPR

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

Give five initial rescue breaths before starting chest compressions

Compress the chest by at least one-third of its depth:

For a baby under 1 year, use two fingers

For a child over 1 year, use one or two hands to achieve an adequate depth

Vomit during resuscitation



Minimise the interruption to CPR



Unconscious casualty



Airway blocked by the tongue.



Airway blocked by vomit.



Causes of unconsciousness

- Fainting
- Shock
- Stroke
- Lack of Oxygen
- Poisoning
- Diabetes
- Head Injury
- Heart Attack
- Epilepsy



Levels of response – AVPU

Alert

Voice

Pressure

Unresponsive



Recovery position

The recovery position is intended for an unresponsive casualty who is breathing normally (*does NOT need CPR*)

For an injured casualty:

Keep them still and continually monitor Airway and Breathing

You can use the recovery position if the airway is at risk



Recovery position – baby



Unconscious casualty

DO:



- Turn the casualty on to the opposite side every 30 minutes if they are in the recovery position for a prolonged period.
- Place a heavily pregnant casualty on her left side to help circulation.

DO NOT:



- Place a pillow under the head whilst the casualty is on their back.
- Place anything in an unconscious casualty's mouth.



First Aid for Seizures

- General seizure first aid includes care and comfort steps that should be done for anyone during or after a seizure
- The goal is to keep someone safe and know when more help is needed
- Everyone should be taught to follow simple seizures first aid steps.



Choking recognition

Your casualty is suddenly unable to speak, particularly whilst eating

Ask them “are you choking?”

Mild choking:

- Can speak, cough and breathe



Severe choking:

- Unable to cough effectively
- Unable to speak – may ‘nod’ in response to your question
- Struggling or unable to breathe
- Distressed look on the face
- Will become unconscious if untreated



Choking adult or child



Cough



Five back blows



Five abdominal thrusts



Choking baby



5 Back Blows



5 Chest Thrusts



Choking – unconscious casualty

Unconscious = Start CPR!



Choking – seeking medical advice

After successful choking treatment,
seek immediate medical attention if the casualty:

- Has received abdominal thrusts, chest thrusts or chest compressions;
- Has difficulty swallowing;
- Has a persistent cough; **OR**
- Feels like ‘an object is still stuck in the throat’ .



Blood loss

10% Blood Loss

20% Blood Loss

30% Blood Loss

40% Blood Loss

Consciousness

Skin

Pulse

Breathing



Types of bleeding

Arterial

- Arterial blood is propelled under the direct pressure of the heart's pumping action, causing it to spurt in rhythm with the heartbeat.
- Rapid blood loss can become life-threatening within just two minutes.
- Arterial blood, being rich in oxygen, is bright red, although this can be challenging to discern. Observing the manner in which a wound bleeds is often a more straightforward assessment.

Types of bleeding

Venous

- Veins are not subjected to the direct pressure from the heart, yet they transport a volume of blood comparable to that of the arteries.
- Bleeding from a major vein will flow profusely and is life-threatening.



Types of bleeding

Capillary

- Bleeding from capillaries is a common occurrence in all types of wounds.
- While the flow might seem rapid initially, blood loss is typically minimal and can be readily managed.
- Bleeding from a capillary can be characterized as a small, steady stream of blood.



Hypovolaemic shock

Hypovolemic shock is a serious medical problem that requires immediate treatment. A large loss of blood or fluids prevents your organs from getting the oxygen and nutrients they need to function. This can lead to organ failure and can be fatal. Prompt treatment increases your chance of survival.



Hypovolaemic shock

As you lose more blood or fluids, your symptoms get worse. Hypovolemic shock symptoms include:

- Breathing faster than normal.
- Feeling confused or anxious.
- Sweating a lot.
- Passing out.
- Having skin that feels cool.
- Feeling weak.
- Having a low temperature and low blood pressure.
- Having a fast pulse.



Treatment of bleeding

Sit or Lay

Examine

Pressure

10 minutes



Catastrophic bleeding – prioritising treatment

- **C**atastrophic bleeding
- Airway
- Breathing
- Circulation



Wound packing

For life-threatening bleeding that cannot be controlled by direct pressure

- Identify and press on the exact point of bleeding. Mop out any pooled blood.
- **TIGHTLY** pack the whole wound
- Press for 10 mins
1-3 mins for a haemostatic dressing.
- Send packaging to hospital with casualty.
- DO NOT try to pack a chest or lung injury.



Wound packing

Celox gauze training video:

<https://www.youtube.com/watch?v=0iNhCaNKQkE>



Tourniquets

Life-threatening bleeds only – try direct pressure first if possible.

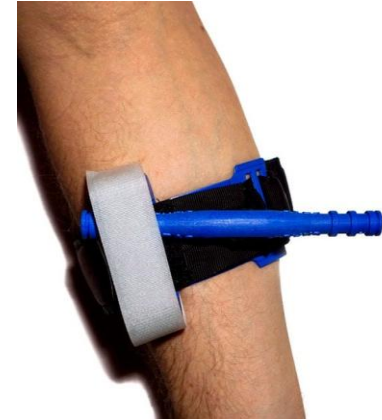
- Apply 5–7cm (2 inches) above the wound (*blood vessels can contract*)
- Tighten enough to stop the pulsating blood

Still bleeding?

- tighten it more
- reposition it
- apply a second tourniquet

Record the time!

- Call **999** or immediately transfer to hospital.
- Use a manufactured tourniquet if you have one!
- Improvised tourniquet better than death!



Tourniquets

The Tourni-key



Tourni-key



Tourniquets

CAT Tourniquet training videos:

<https://www.youtube.com/watch?v=tzXNsfsUb0>

<https://www.youtube.com/watch?v=LDN03FgUhxU>



Types of wound

- **Contusion**
- **Abrasion**
- **Laceration**
- **Incision**
- **Penetrating**
- **Amputation**

Minor injuries – contusion (bruise)



Minor injuries – abrasion (graze)



Types of wound – laceration



Types of wound – incision



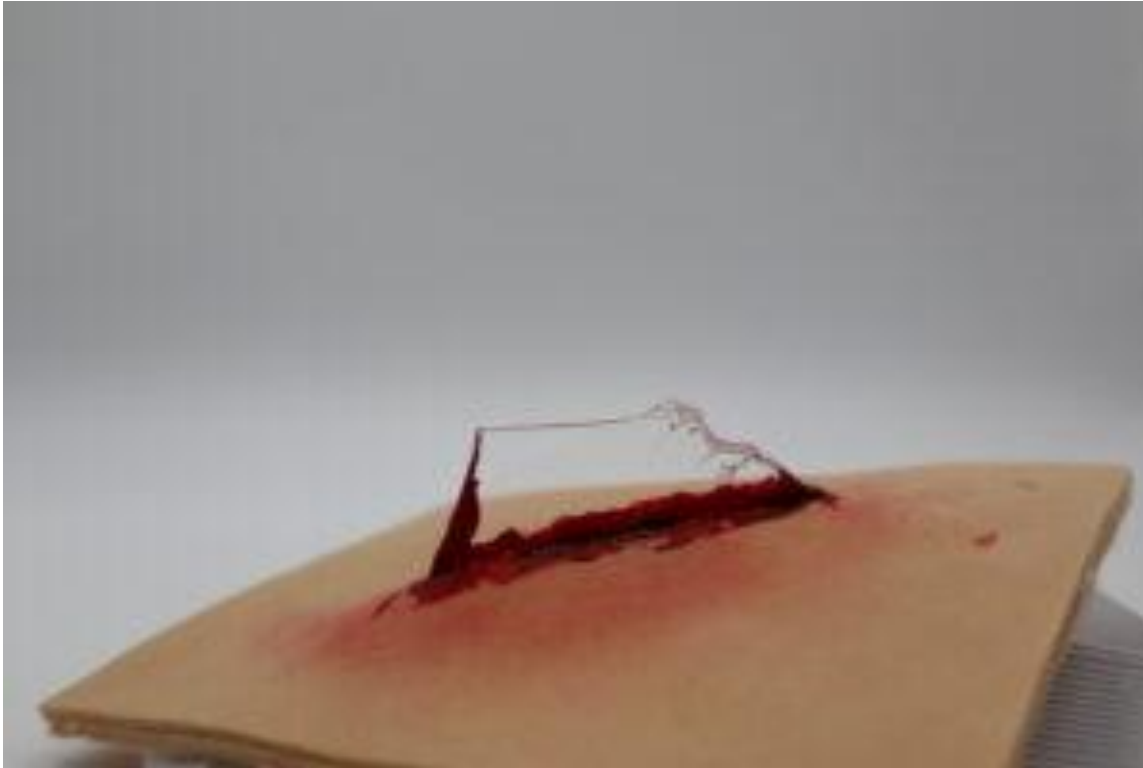
Types of wound – penetrating



Types of wound – amputation



Minor injuries – embedded glass



Minor injuries – splinter



Minor injuries – insect sting

- Scrape with a credit card - **Do not** use tweezers.
- Elevate and treat with ice for 10 minutes.
- In mouth: ice cube to suck and cold water.
- Monitor for allergic reaction.
- Seek medical advice if pain/swelling persists



Animal or human bite

- Irrigate the wound with a large quantity of water
- Treat for any bleeding
- Pat dry and cover with a sterile dressing
- Seek medical advice – tetanus?
- Hospital if the wound is large or deep



Minor injuries – nosebleed

- Sit down, tip head forwards
- Nip soft part of nose – 10 minutes
- No picking or blowing
- Hospital if:
 - It is bleeding more than 30 minutes
 - If you are using blood thinners
- See doctor if it happens regularly



First Aid for Eyes

Dust or dirt:

- Wash out with saline or cold tap water.

More serious injuries:

- Cover with a sterile dressing and bandage if necessary.
- Take the casualty to hospital. Call 999 if needed

Chemicals:

- Wear gloves and open the eye
- Irrigate with lots of clean water ensuring that it does not contaminate the other eye
- Call 999/112 for emergency help



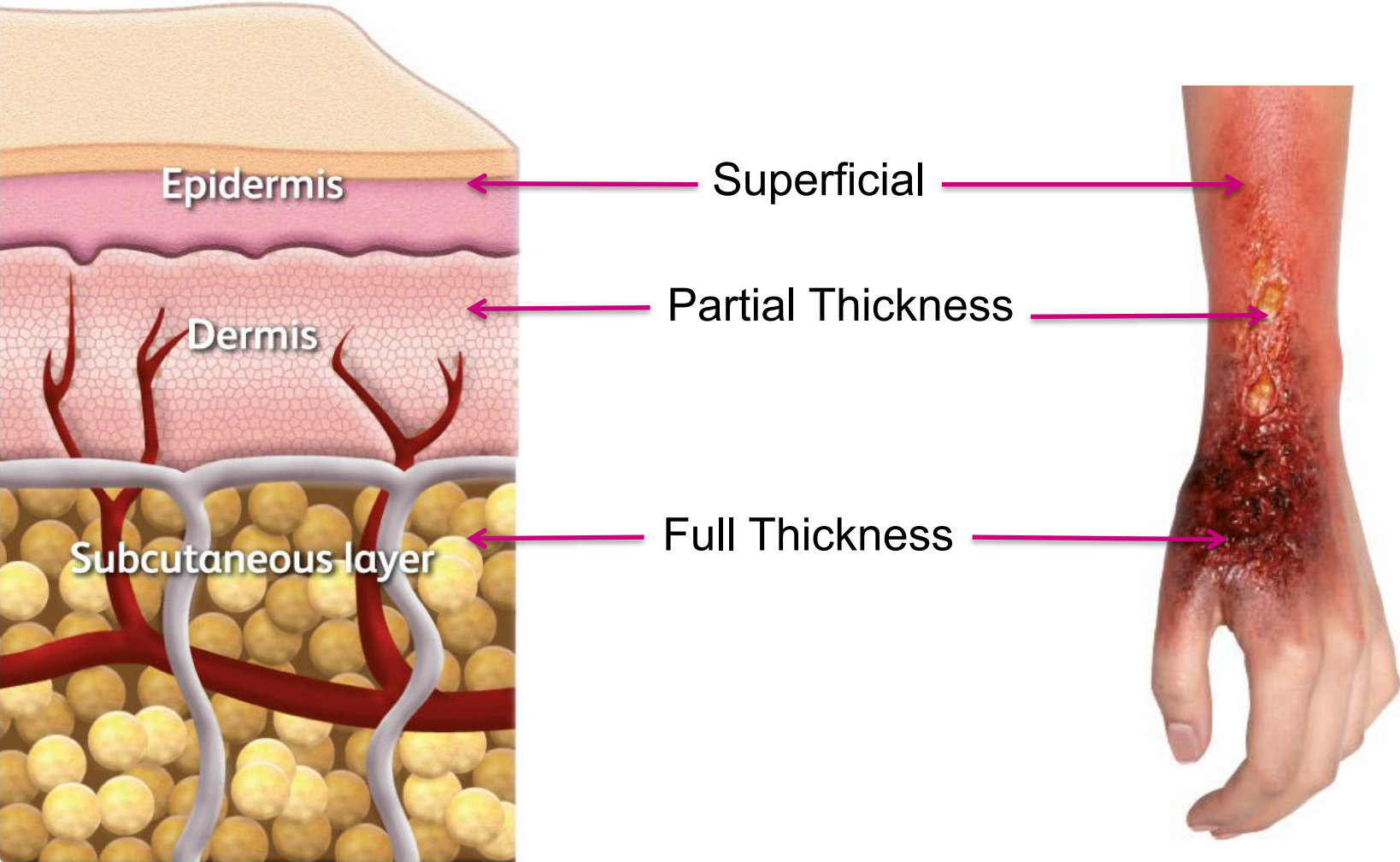
Burns

Consider

- **Size**
- **Cause**
- **Age**
- **Location**
- **Depth**



Burns – depth



Burns treatment



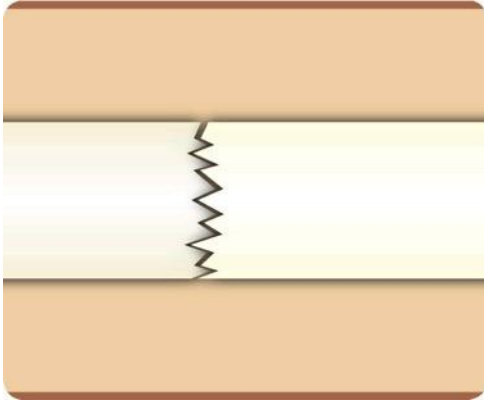
Gently remove any rings or jewellery



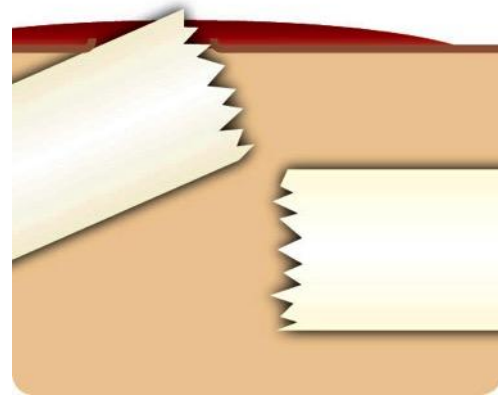
Seek medical intervention if necessary!



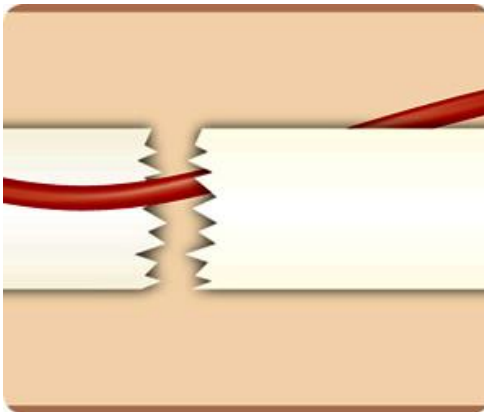
Types of fracture



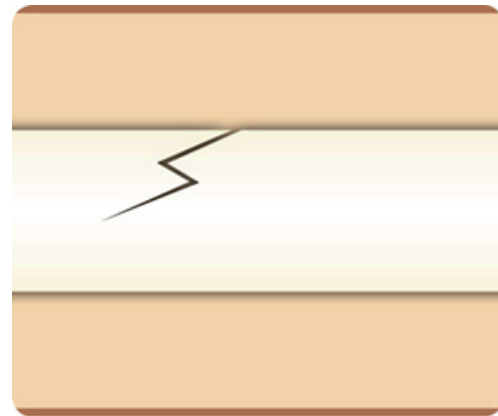
Closed



Open



Complicated



Green Stick



Dislocation



Dislocated



Normal

Fractures – signs and symptoms

- Pain
- Loss of power or movement
- Swelling
- Deformity
- Irregularity
- Tenderness



Slings

Elevated Sling



Support Sling



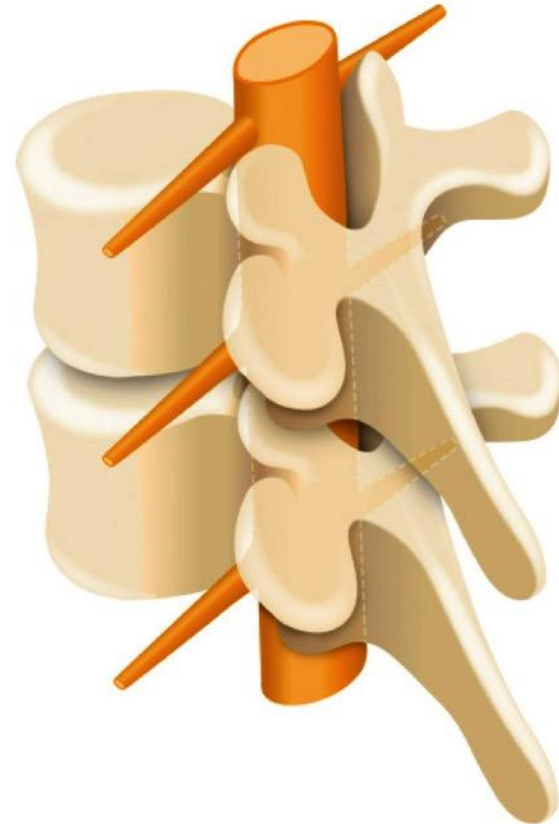
The Spine

7 Cervical

12 Thoracic

5 Lumbar

5 Fused Sacral



Spinal injury – recognition

How did it happen?

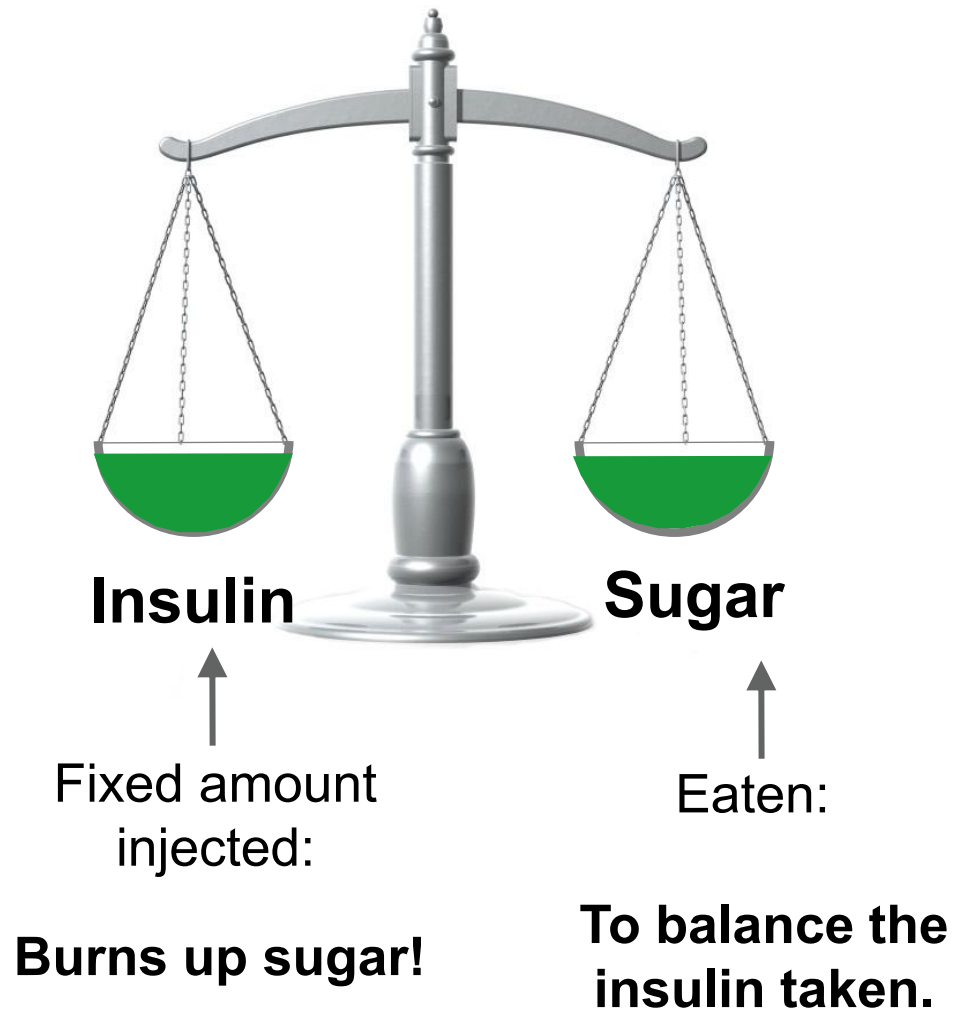
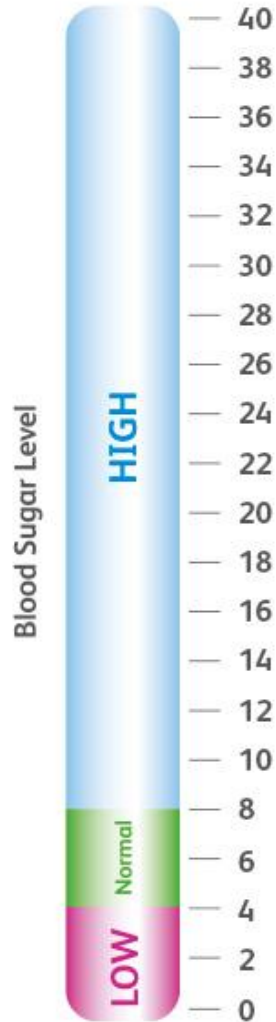
- Blow to head, neck or back?
- A fall from height?
- A dive into shallow water?
- Did it involve speed?
- The more information that you can give the emergency services, the better chances of recover.



Spinal injury

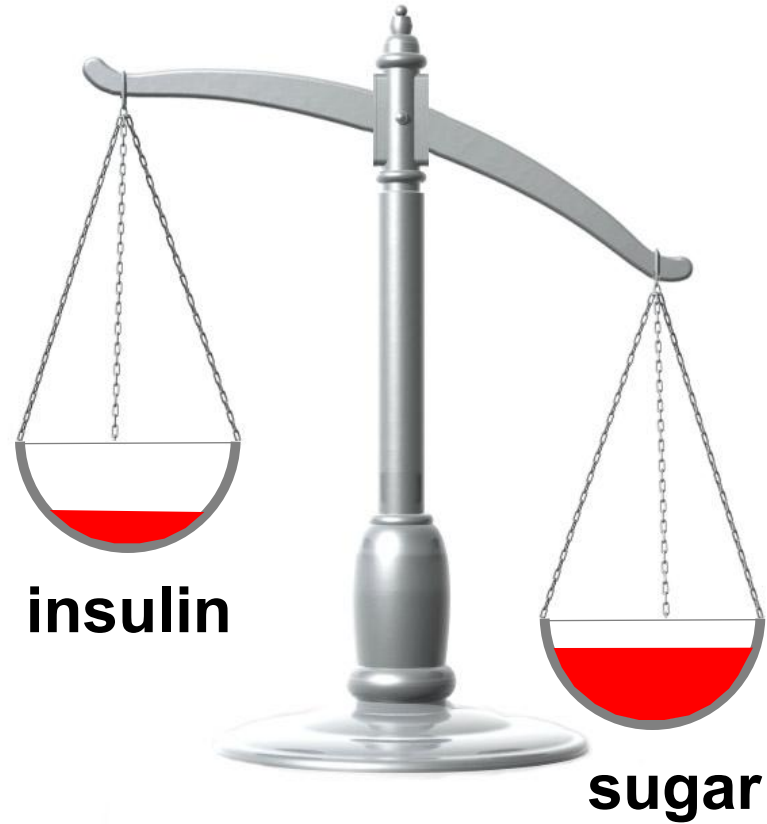
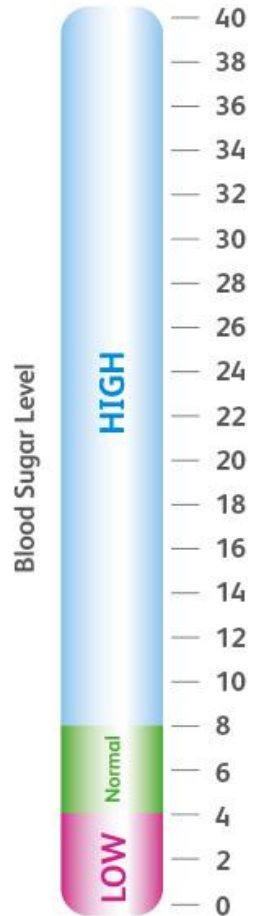


Diabetes



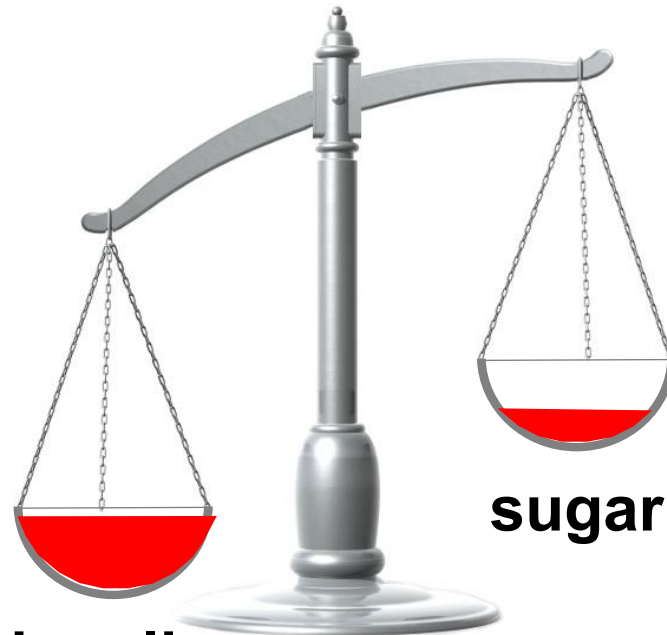
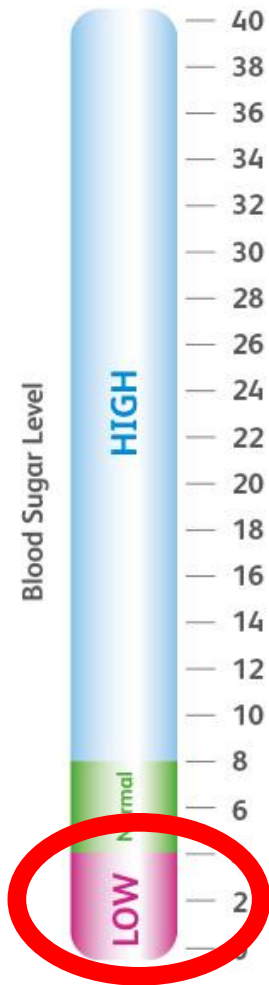
Diabetes

Untreated



Diabetes

Diabetes – low blood sugar



Overdosed
on insulin

Or not eaten
enough food;

Or over
exercised.

Diabetes

Why is low blood sugar so dangerous?

Brain cells can only use **glucose** (sugar) for energy

Oxygen + Food = Energy = LIFE

Diabetes

Diabetes – low blood sugar treatment

20g of Glucose:

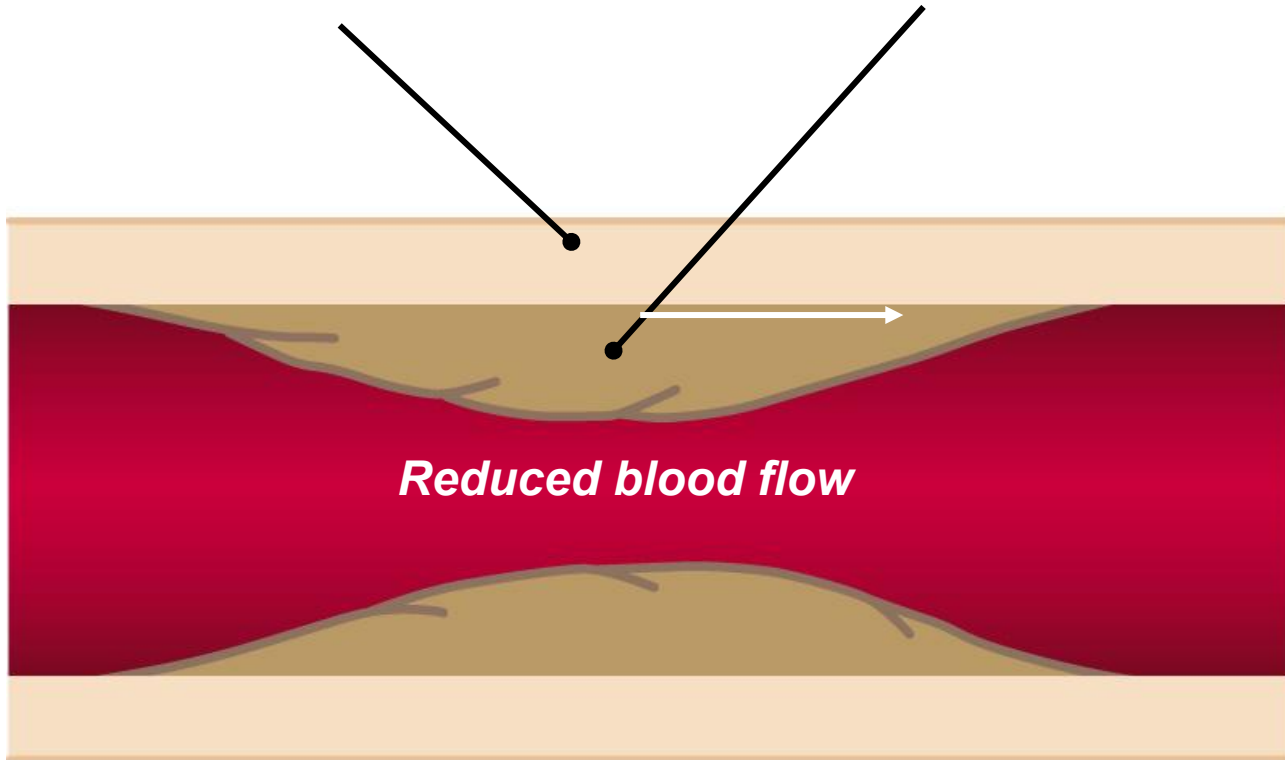
- 200ml lemonade
- 200ml orange juice
- 4 jelly babies
- 4 teaspoons or cubes of sugar
- 20 skittles



Angina

Coronary Artery Wall

Cholesterol Plaque

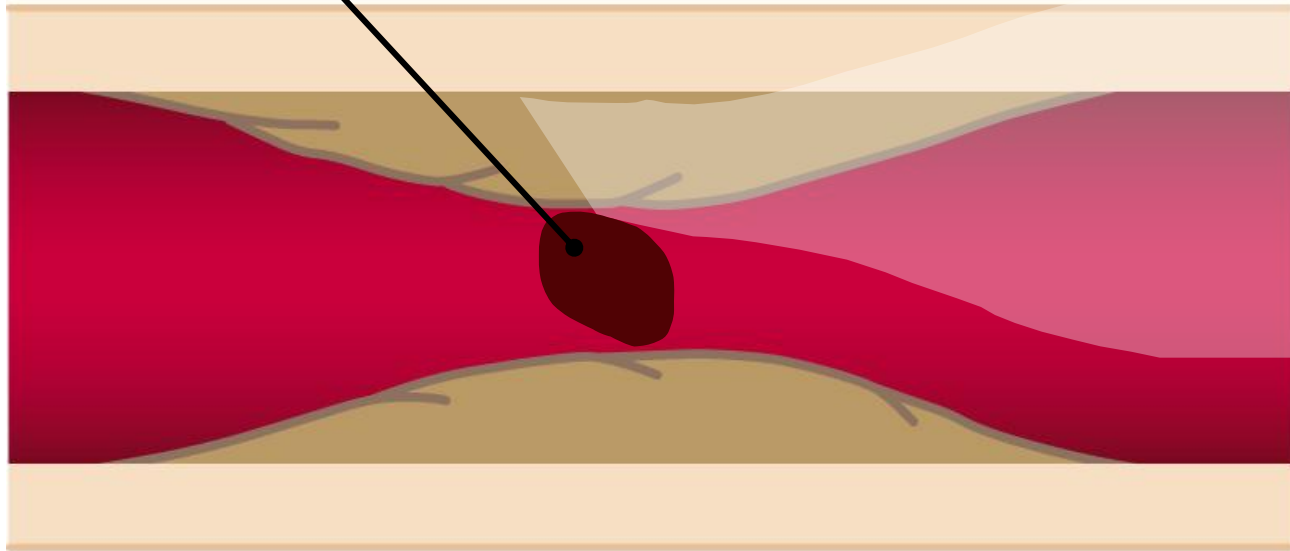


Reduced blood flow

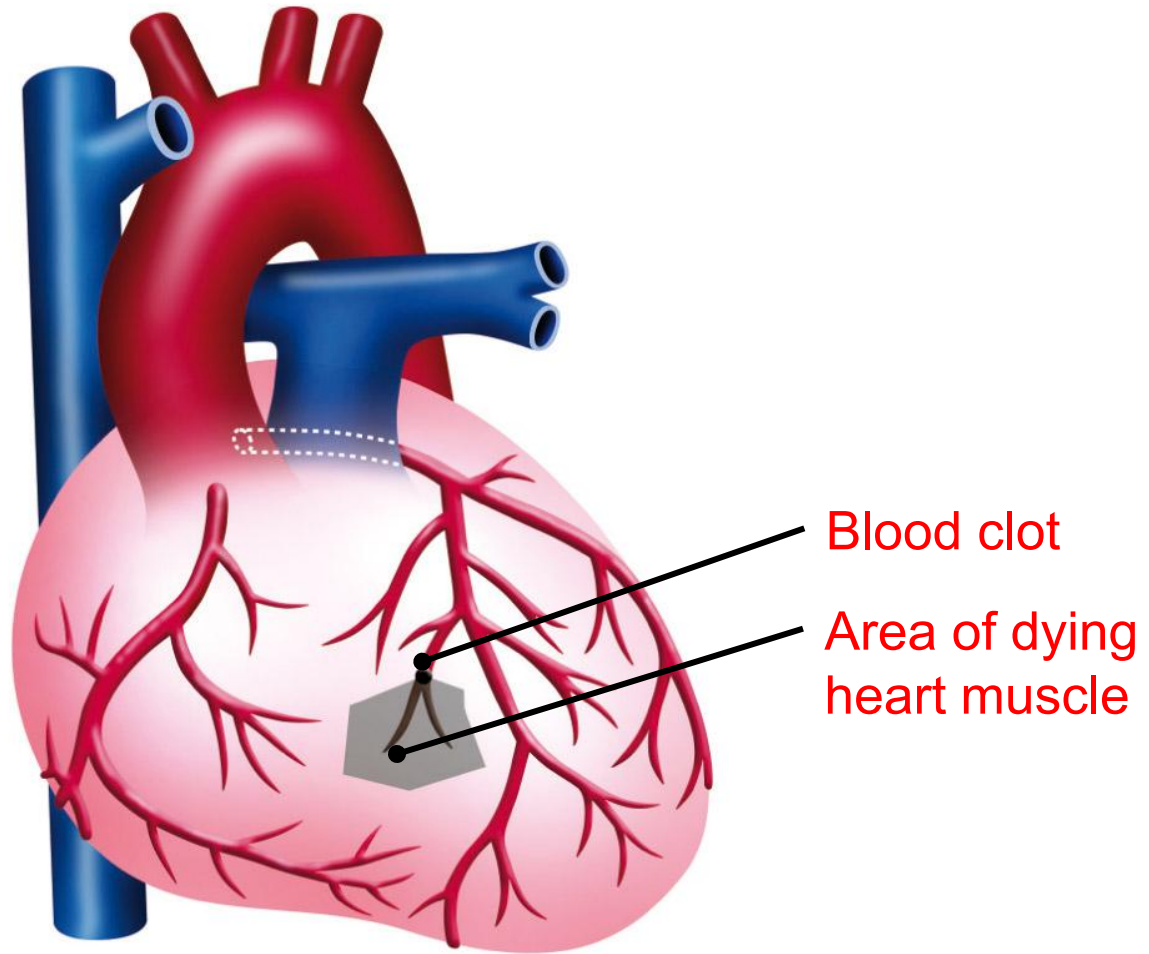


Heart attack

Blood Clot



Heart attack



Angina or heart attack?

Angina

Heart Attack

Onset

Sudden, usually during exertion, stress or extreme weather.

Sudden, can occur at rest.

Pain

Vice-like squashing pain.
'Dull', 'tightness' or 'pressure'.
Can be mistaken for indigestion.

Vice-like squashing pain.
'Dull', 'tightness' or 'pressure'.
Can be mistaken for indigestion.

Location of Pain

Central chest. Can radiate into arms, neck, jaw, back, shoulders.

Central chest. Can radiate into arms, neck, jaw, back, shoulders.

Duration

3 – 8 Minutes, rarely longer.

Usually longer than 30 minutes.

Skin

Pale skin or pale skin inside the lips.
May be sweaty.

Pale, grey skin or pale skin inside the lips. May sweat profusely.

Pulse

Variable. Often becomes irregular, missing beats.

Variable. Often becomes irregular, missing beats.

Other signs and symptoms

Shortness of breath, weakness, anxiety.

Shortness of breath, dizziness, nausea, vomiting, sense of 'impending doom'.

Factors giving relief

Resting, reducing stress, taking 'GTN' medication.

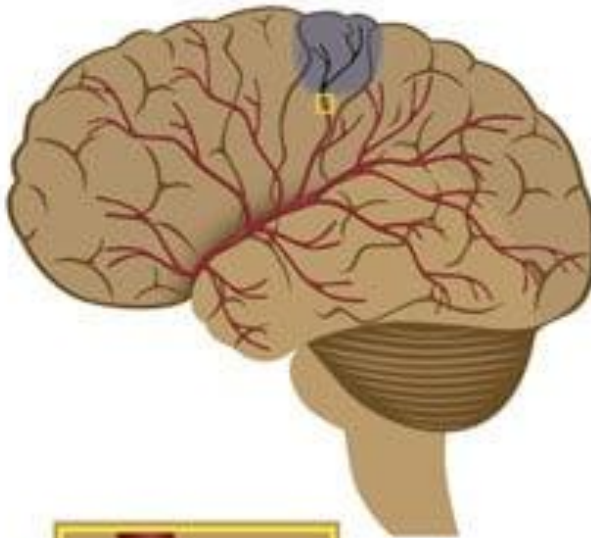
GTN medication may give partial or no relief.



Stroke

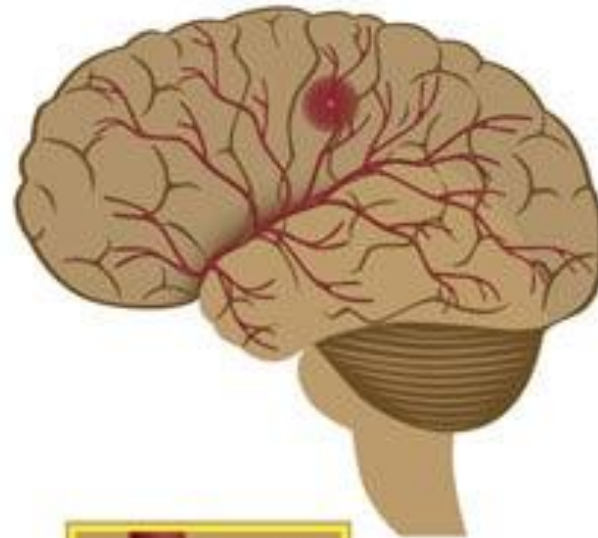
Brain Stroke

Ischemic Stroke



Blockage of blood vessels; lack of blood flow to affected area

Hemorrhagic Stroke



Rupture of blood vessels; leakage of blood



Stroke

Could you spot the signs of a stroke?

Face

- Can the person smile?
- Does the face droop on one side?

Arms

- Can they raise both arms and keep them there?

Speech

- Can they speak?
- Are they having difficulty putting sentences together?



Stroke



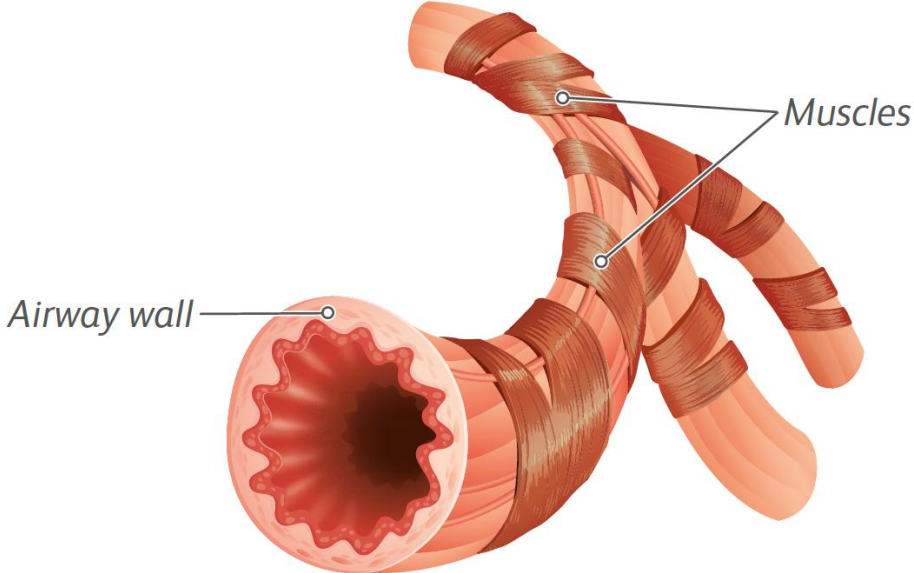
(If they fail ANY of these tests)

Time to call 999!

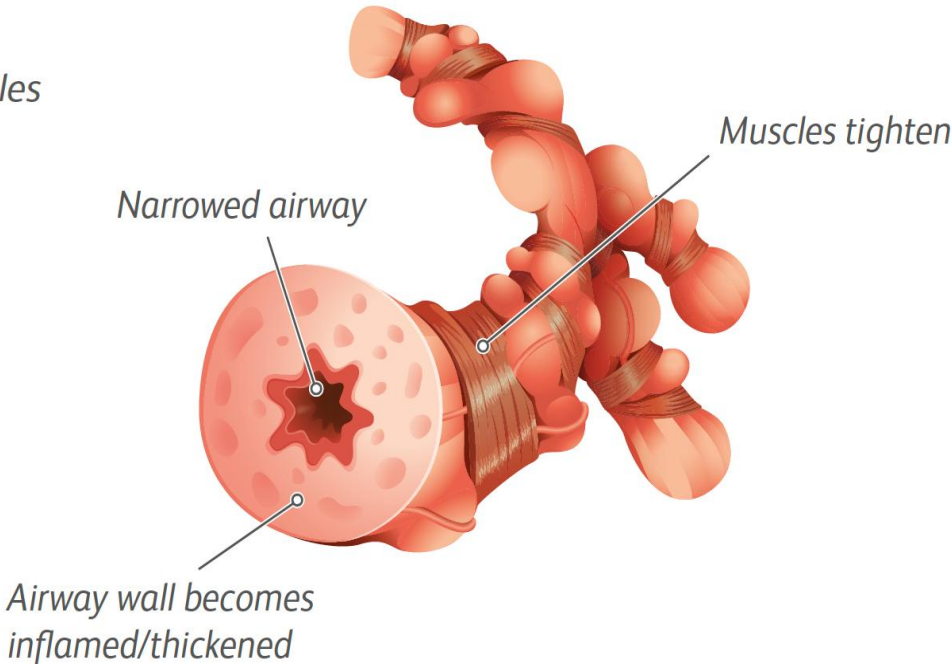


Asthma

Normal airway



Airway during asthma attack



Asthma

Recognition

- **Difficulty breathing and speaking**
- **Wheezy breathing sound coming from the lungs**
- **Coughing more than usual**
- **The feeling of a tight chest**
- **Pale, clammy skin, with grey or blue lips**
- **Exhaustion in a severe attack**
- **Becoming unconscious and stop breathing**



Asthma

DO:



- Keep the casualty upright
- For children, Use a spacer device if possible

DO NOT:



- Lay the casualty down
- Take them outside in cold air



Anaphylaxis

Anaphylaxis has three main characteristics:

1. A rapid onset and rapid progression– the casualty usually becomes very ill, very quickly.
2. A life-threatening **Airway, Breathing** or **Circulation** problem
3. A skin rash, flushing and/or swelling
(note: not all casualties will have this).

Anaphylaxis - Recognition

Airway

- Swelling of the tongue, lips or throat. A feeling of the throat closing up.
- A hoarse voice or loud pitched, noisy breathing.

Breathing

- Difficult, wheezy breathing or a tight chest.

Circulation

- Dizziness, feeling faint or passing out
- Pale, cold, clammy skin (or pale skin inside the lips) and fast pulse.
- Nausea, vomiting, stomach cramps, diarrhoea.

Anaphylaxis

Treatment



Accident book

Your Name

Address

Occupation

The Casualties' Name

Address

Occupation

When did it happen?


Where did it happen?

How did it happen?

Detail any obvious injuries

Report Number

ACCIDENT RECORD SAMPLE



1 About the person who had the accident

Name

Address

Postcode

Occupation

2 About you, the person filling in this record

▼ If you did not have the accident write your address and occupation.

Name

Address

Postcode

Occupation

3 About the accident *Continue on the back of this form if you need to*

▼ Say when it happened. Date / / Time

▼ Say where it happened. State which room or place.

▼ Say how the accident happened. Give the cause if you can.

▼ If the person who had the accident suffered an injury, say what it was.

▼ Please sign the record and date it.

Signature

Date / /

4 For the employee only

By ticking this box I give my consent to my employer to disclose my personal information and details of the accident which appear on this form to safety representatives and representatives of employee safety for them to carry out the health and safety functions given to them by law.

Signature

Date / /

5 For the employer only

Complete this box if the accident is reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). To report, go to <http://www.hse.gov.uk/riddor/report.htm>

How was it reported?

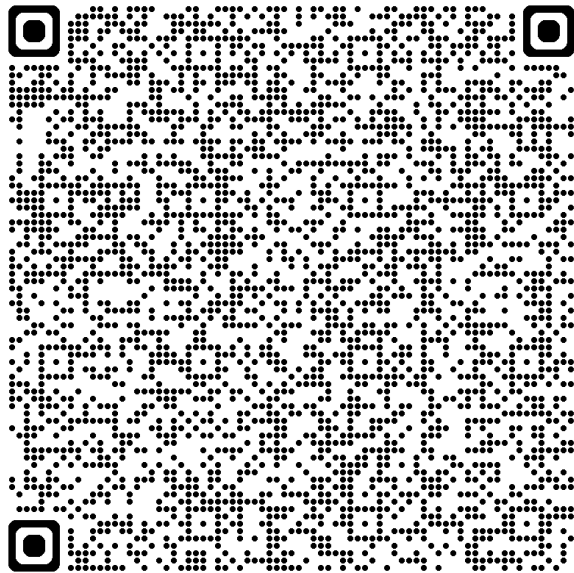
Signature

Date reported / /



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