

Contents

INTRODUCTION	1	PAEDIATRIC TRAUMA & INJURIES	51
Aims of First Aid	1	Bleeding and Blood Volume	51
Role of the Paediatric First Aider	2	Shock	53
Primary Assessment	3	Internal Bleeding	54
RESUSCITATION	5	Haemostatic Dressings	55
Latest Guidelines	5	Tourniquets	55
Resuscitation Techniques	7	Nosebleeds	56
Adult CPR Sequence	13	Embedded Objects	57
Defibrillation	17	Amputations	57
Levels of Response	18	Bites and Stings	58
Recovery Position	19	Minor Injuries	60
Secondary Survey	21	Eye Injuries	62
PAEDIATRIC MEDICAL EMERGENCIES	23	Fractures	63
Choking – Child & Adult	23	Dislocations	65
Choking – Baby	25	Sprains & Strains	66
Anaphylaxis	27	Support Slings	67
Asthma	30	Head Injuries	68
Croup	32	Spinal Injuries	72
Drowning	34	OTHER CHILDHOOD ACCIDENTS	73
Meningitis	35	Electric Shocks	73
Seizures	38	Poisoning	75
Diabetes	40	Burns & Scalds	78
Sickle Cell Anaemia	43	EMERGENCIES & THE FIRST AIDER	80
Body Temperature	45	Giving Medication	80
Febrile Convulsions	46	Accident Reporting	81
Heat Exhaustion	47	First Aid Kits	82
Heat Stroke	48	NOTES PAGES	
Hypothermia	49		

The icons below are used throughout the book to help guide you



Signs & Symptoms



Warnings



Treatments



Tips

Practical Paediatric First Aid

INTRODUCTION

People who look after children should have the correct knowledge, skills and confidence to know what to do in an emergency. This book provides essential information on the most common emergencies affecting children and the actions that need to be taken to **protect** and **save lives**.

This book should ideally be accompanied by a suitable ***Paediatric First Aid Training Course*** as several of the techniques shown can require practice and guidance to perfect.

AIMS OF FIRST AID

First aid is the immediate treatment given to a casualty at the scene of an accident. Here are the AIMS of FIRST AID:

- P** **Preserve Life**
- P** **Prevent the Condition Worsening**
- P** **Promote Recovery**

Ensure the casualty suffers no further harm and is in a better condition as a result of your care.

THE ROLES OF THE PAEDIATRIC FIRST AIDER

1 Assess the situation

- Take in what has happened (calmly & quickly)
- Look for history, signs and symptoms
- Identify, if possible, the type of injury or illness
- Identify numbers of casualties
- Reassure the casualty

2 Protect from Dangers

- Protect yourself and casualty from danger
- Do NOT move the casualty unless life is under threat
- Deal with ongoing dangers

3 Get HELP quickly – do not delay

- Do you need to go for help yourself OR are there bystanders who could go?
- If you use bystanders, brief them sufficiently and ensure they return to update you.
- Stay with the child if at all possible, until help (or their parents) arrives
- Communicate clearly with the casualty, bystanders, parents, medical personnel

4 Prioritising Treatment

- Treat life threatening problems first
- Use the Primary Assessment P.12
- Prioritise casualties

5 Minimise infection risks

- Wash hands before and after
- Cover your open wounds
- Use in date, sterile dressings
- Wear disposable gloves
- Dispose of contaminated waste carefully

6 Recording and Reporting

- Record incidents accurately
- Maintain confidentiality
- Report incidents

YOUR EMERGENCY PLAN

Wherever you care for children, it is absolutely essential to have a **PLAN OF ACTION** in place to help you deal with paediatric emergencies promptly and effectively. Your plan should include:

- Contact Numbers
- Care for the children if you fall ill yourself
- Correctly stocked first aid box in a suitable location
- A fully charged phone
- A fire escape plan

The Primary Survey

The Primary Survey is a widely recognised way of identifying and treating life-threatening conditions in order of priority. The Primary Survey should be used for **EVERY FIRST AID CASUALTY**.

The Primary Survey should be performed in strict order. If a problem is found at any step it should be treated before moving on to the next step and continued until complete. **DO NOT** be distracted by unpleasant **but more superficial** conditions until The Primary Survey is complete.

TIP

The Primary Survey can be used as a rapid assessment tool to decide who to treat first if there are multiple casualties. Remember, casualties who are shouting or crying have an open airway and are breathing. It is often the quietest casualties who will need your immediate attention.





The Primary Survey

DRABC (DoctorABC) is an excellent way to remember The Primary Survey sequence. The word Doctor at the start should also remind you to **call for help early**.

D DANGER

- Ensure that the casualty and YOU and any bystanders are safe
- Ensure other children in your care are also safe

R RESPONSE

- Is the casualty conscious? Gently tap the shoulder (or foot if a baby) and ask loudly “are you alright”? If there is no response **SHOUT** for help. Do not leave the child at this stage

A AIRWAY

- If the casualty is unconscious, open the airway (head tilt - chin lift)
- If conscious - identify and treat any life-threatening airway problems (e.g. choking, suffocation). When the airway is opened, assess Breathing

B BREATHING

- Is the casualty breathing? Look, Listen and Feel (see techniques on [page 8](#)) for up to 10 seconds
- If the casualty is unconscious and not breathing normally - START CPR
- If you are still alone and the casualty is a baby or child perform CPR for 1 minute BEFORE stopping to call 999/112 or going for help
- If the casualty is unconscious and breathing normally place them in the recovery position and complete the primary and secondary surveys ([see page 21](#))
- If the casualty is conscious, identify and treat any life-threatening breathing problems (such as asthma or croup)

C CIRCULATION

- Identify and treat any life-threatening circulation problems (such as severe bleeding)
- If your assessment has identified the need to start CPR at **B** you are unlikely to reach this stage of the survey

Resuscitation

THE RESUSCITATION GUIDELINES

Anyone faced with an extremely unwell child will find this an incredibly stressful experience. In the heat of the moment, complicated sequences and facts may be forgotten. Sadly, recent studies have shown that many children do not receive appropriate resuscitation before medical professionals arrive. This is due to rescuers fearing they may harm the child or being unable to remember the correct sequence of actions.

The latest resuscitation guidelines therefore focus on minimising the number of steps that need to be remembered. The **Adult Sequence** of steps **may** be used on children if the rescuer is unfamiliar with the **Child Sequence** – as this is much better than doing nothing.

The adult sequence is shown from [page 13](#)

The sequences for babies and children are shown from [page 15](#)



THE PRINCIPLES OF RESUSCITATION

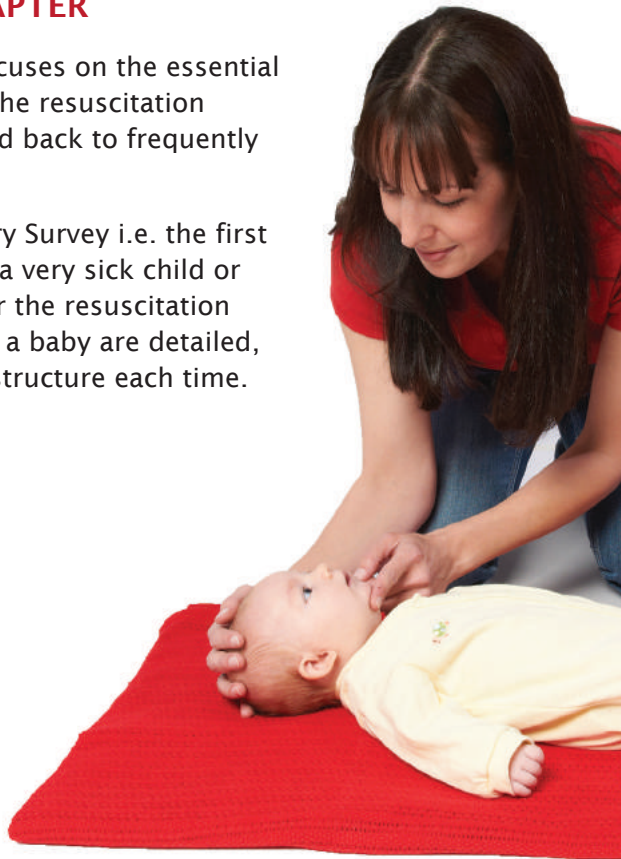
Oxygen is essential for life. Without it, brain cells start to die within 3-4 minutes. Oxygen is taken in when we breathe in. The circulation then carries the oxygen round the body with the heart acting as the circulation pump.

The priorities of treatment are therefore to ensure that oxygen gets into the blood and that the oxygenated blood is then carried round the body in the circulation.

THIS RESUSCITATION CHAPTER

The remainder of this chapter focuses on the essential techniques required to perform the resuscitation sequences and should be referred back to frequently when reading other sections.

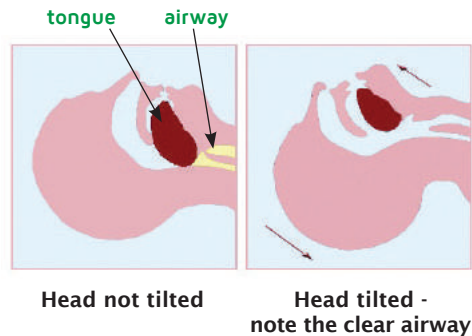
Emphasis is placed on the Primary Survey i.e. the first actions taken when dealing with a very sick child or adult. The sequences of steps for the resuscitation of an adult then a child and then a baby are detailed, using the Primary Survey as the structure each time.



Resuscitation: Essential Techniques

AIRWAY OPENING

When a casualty is unconscious from any cause, muscular control is lost and the tongue falls back, blocking the airway. With babies and young children, often the simple act of opening the airway can result in normal breathing returning. In any case, rescue breaths will not be effective if the airway is not open.



For Adults and Children:
Head Tilt - Chin Lift

Tilt the head back and lift the chin by placing one hand on the forehead and the fingertips of the other hand under the point (bony part) of the chin (see picture).



TIP

Ensure that the soft structures of the neck are not squashed by your fingers as this will compress or close the airway.



**For Babies:****Head Tilt - Chin Lift to NEUTRAL Position**

Place your hand on the forehead and fingertips of the other hand under the point of chin, gently tilt the head and lift the chin until the head is in the **neutral** position. It is vital in babies that you **DO NOT** over-extend the neck.



OPENING THE AIRWAY IN SUSPECTED SPINAL INJURIES

Opening an airway in an unconscious casualty who may have injured their spine (for example after a fall or blow to the neck) causes great concern because of the risk of causing spinal cord damage. Opening the airway is still vital for these patients, as they will not survive otherwise. It is now recommended that first aiders who are not medically trained should gently perform the **Head Tilt-Chin Lift** manoeuvre.

ASSESSING BREATHING

After opening the airway in an unresponsive adult, baby or child, the next step is to see if the casualty is breathing effectively.

**Look, Listen and Feel**

Keeping the airway open, bend down so that your ear and cheek are close to the casualty's mouth and nose.

Look can you see the chest rising and falling?

Listen can you hear regular breathing sounds?

Feel can you feel breath on your cheek?

The Look, Listen and Feel technique, should take no more than **10 seconds** to perform.

If the casualty is not breathing or taking only occasional gasps, **start CPR** (as detailed on the following pages).



WARNING

AGONAL GASPS - these are irregular, noisy gasps that can occur in the first few minutes after a cardiac arrest. They are not effective breaths and the rescuer should proceed with CPR as though breathing is absent.

**PERFORMING RESCUE BREATHS**

In an unresponsive baby or child, after opening the airway and finding they are not breathing, **Rescue Breaths** should be given.

Ensuring the airway is open, use your finger and thumb to nip the casualty's nose closed. For a small baby you may not need to nip the nose closed as you may be able to seal your mouth over both the baby's nose and mouth. Take a normal breath and seal your lips around the casualty's mouth. Blow steadily into the casualty's mouth for about 1 second and **watch the chest rise**. Less air will need to be blown to make a baby's chest visibly rise compared to a child's. Blow just enough to make it rise and do not over inflate the lungs.

Maintaining the open airway, take your mouth off the casualty's lips. Take a normal breath and watch for the casualty's chest to fall as air comes out.

Re-seal your mouth over the casualty's and repeat the above until a total of **5 initial rescue breaths** are given to the child or baby.

CPR is continued with **30** chest compressions and then **2** rescue breaths. This cycle of 30 compressions to 2 rescue breaths continues.

If Rescue Breaths Do Not Make the Chest Rise:

- Check inside the mouth and remove any obstruction that is easily seen (DO NOT blindly poke fingers into the throat)
- Recheck the airway position, ensuring adequate **Head Tilt - Chin Lift** in a child or adult. Ensure the neck is not over-extended in a baby





CHEST COMPRESSIONS

In an unresponsive baby or child, after opening the airway, finding they're not breathing and performing 5 rescue breaths, the next technique you'll need to perform is **Chest Compressions**.

Kneel at the side of the casualty and for **older children and adults** place the heel of one hand in the centre of the casualty's chest. Then place the other hand over the top of the first and interlock the fingers. With your arms straight and elbows locked press down on the chest, allowing it to rise again by releasing pressure but maintaining hand position. Avoid pressing over the ribs, abdomen or the tip of the breast bone.



For **smaller children**, perform chest compressions as above but with one hand.





Chest Compressions - Babies

For **babies**, perform chest compressions with your first 2 fingers, keeping them straight and your arm straight, elbow locked.

How fast should I perform compressions?

Do 30 chest compressions at a rate of 100-120 per minute.

How hard should I press?

Use enough pressure to depress the chest by at least a third of its depth.

How do I decide to use one or two hands?

For babies use 2 fingers as above. For children use one or two hands - whichever enables you to comfortably depress the chest by at least one third of the depth without you tiring early or using undue force. This will depend on the size of the child and your own size.



TIP

To perform CPR, the casualty should ideally be on a firm, flat surface i.e. the floor. If you are unable to move them onto the floor safely, attempting CPR on the bed is better than not doing CPR at all.



Combining Rescue Breaths and Chest Compressions

Give 30 chest compressions at a rate of 100-120 per minute (2 per second) followed by 2 rescue breaths. Continue to **repeat cycles of 30 compressions to 2 rescue breaths**.

Only stop to re-check the casualty if they start to regain consciousness AND start to breathe normally; otherwise **do not interrupt resuscitation**.

Two Person Technique

If there is more than one rescuer available, another should take over CPR about every 2 minutes to prevent fatigue but compressions should not be interrupted and there should be no delays in the sequence.

Vomiting During Resuscitation



It is common for an unconscious casualty to vomit. You may not hear and see it happen in the same way as in a conscious person. If the casualty is not breathing, you may only find out when you give rescue breaths. If they have vomited you may hear gurgling noises as the air comes back out of the casualty when the chest falls after giving a rescue breath.



What to do:

- Turn the casualty onto their side tipping their head back to allow the vomit to run out
- Roll them onto their back again and wipe casualty's face
- Continue CPR using a protective face barrier if possible



HYGIENE CONCERNS IN RESUSCITATION

Sometimes the fear of infection stops people performing first aid, particularly where giving rescue breaths is concerned.

With resuscitation there have been no proven cases of hepatitis or HIV being transmitted during resuscitation but if a pocket mask or face shield is available without delay, it can be used to give rescue breaths.

The most serious concern in children is the transmission of meningitis. Rescuers who are involved in the resuscitation of children suspected to have meningitis should consult their doctor as soon as possible afterwards and take a course of preventative antibiotics.



The Adult CPR Sequence

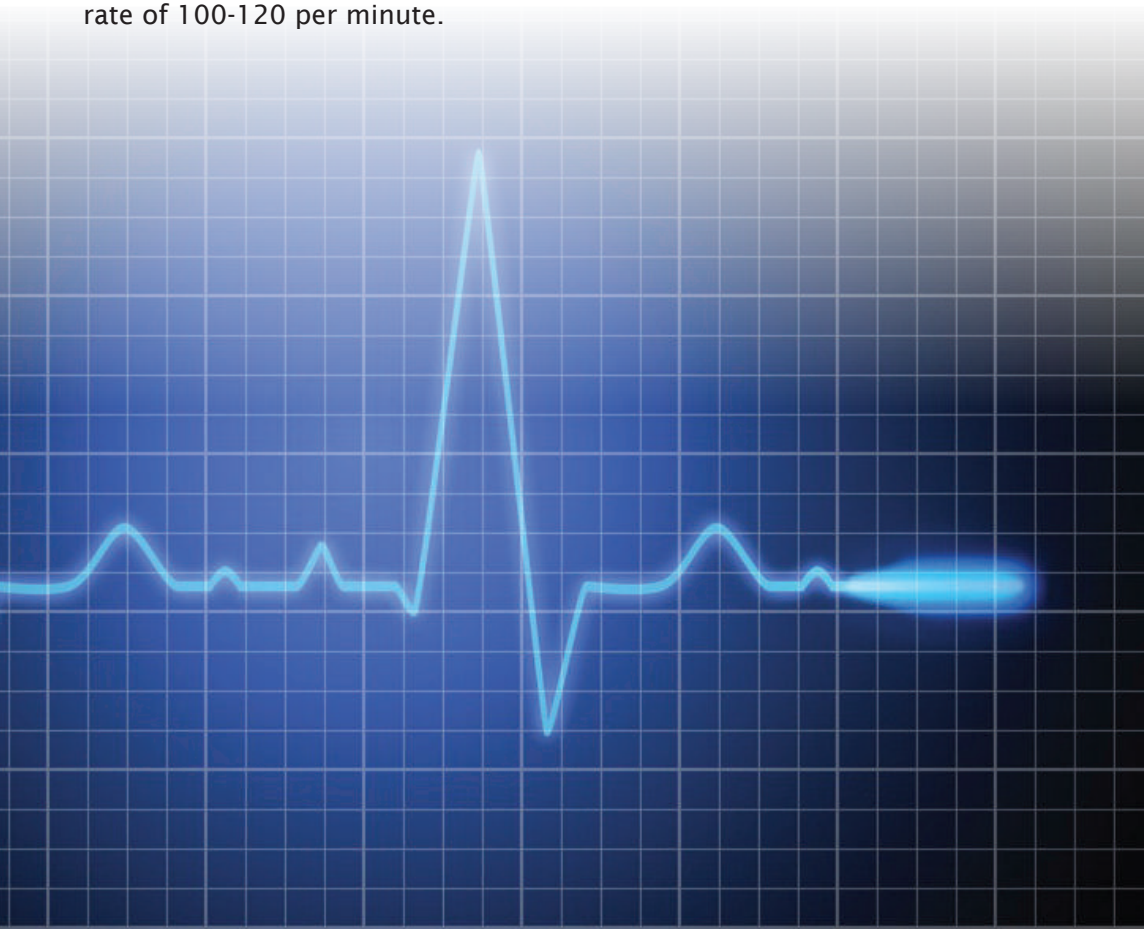
The diagram opposite illustrates the sequence of steps for adult resuscitation. It uses the techniques previously described and is based on the structure of the Primary Survey.



Chest Compression Only Resuscitation

This is for adults suffering a cardiac arrest, where the rescuer is untrained/unwilling to give rescue breaths.

For CHEST COMPRESSION ONLY RESUSCITATION, chest compressions are commenced once D, R, A and B have been performed and the casualty has been found to be unconscious and not breathing. Compressions are commenced using the technique [on page 10](#). These are continuous at a rate of 100-120 per minute.



Eliminate Danger
then move to
RESPONSE



D DANGER

Look for any nearby Danger



Find out what is
wrong, complete
Primary and
Secondary Survey.
Get help if needed



R RESPONSE

Shout, gently shake shoulders
If **NO** response shout for **HELP!**



A AIRWAY

Open Airway, Head Tilt - Chin Lift



Place in
Recovery Position
and complete
Primary and
Secondary Surveys



B BREATHING

Look, Listen & Feel for up to 10 seconds

If **NO** breathing Call 999/112 **NOW**

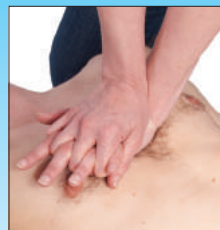


C START CPR

30 Compressions then 2 Rescue Breaths

Cycles of 30 Compressions then 2
Rescue Breaths

Only stop if casualty wakes and
starts breathing



Baby and Child CPR Sequence

MODIFICATIONS OF THE CPR SEQUENCE FOR BABIES AND CHILDREN

Why is the CPR sequence different for children?

Most adults who have a cardiac arrest do so because they have heart disease. Children however, usually have a cardiac arrest because something causes them to stop breathing (respiratory arrest). The heart then stops pumping shortly afterwards due to lack of oxygen if breathing cannot be restored. Most other cardiac arrests in children result from fluid loss, blood loss or fluids being distributed outside of the circulation. Lack of oxygen to the heart and other organs (because the circulation is no longer sufficient to distribute it) causes the cardiac arrest.

These differences are the reasons for the Baby and Child CPR Sequence being modified from the Adult Sequence. But REMEMBER – if you are unsure, it is better to perform the adult sequence on a child than do nothing at all.



The modifications are as follows:

When you have identified that the baby or child is **unresponsive** and **not breathing**:

- Give 5 initial rescue breaths (see page 9) before starting chest compressions. Then continue CPR with the ratio of 30 compressions to 2 breaths
- If you are alone, perform CPR for 1 minute before stopping to telephone 999/112 seeking help
- During chest compressions (see page 10), the chest should be depressed by at least one third of its depth
- For a baby (under 12 months), use **two fingers**
- For a child (over 12 months) use **one or two hands** as required to achieve the depression of at least a third of the depth of the chest



The diagram opposite shows the sequence of steps for baby and child resuscitation. It uses the techniques previously described and is based on the structure of the Primary Survey.

Eliminate Danger
then move to
RESPONSE



D DANGER

Look for any nearby Danger



Find out what is
wrong, complete
Primary and
Secondary Survey.
Get help if needed



R RESPONSE

Shout, gently tap shoulders/foot. If **NO** response shout for **HELP!** Do not leave child/baby yet



A AIRWAY

Open Airway, *Head Tilt - Chin Lift*

Remember **neutral** position for baby, **DO NOT** over-extend neck



Place in
Recovery Position
and complete
Primary and
Secondary Surveys



B BREATHING

Look, Listen & Feel for up to 10 seconds

If **NO** breathing ask someone to Call 999/112 **NOW**

If alone and have to stop/leave to get help, perform 1 minute of CPR first



C START CPR

5 **initial rescue breaths** then 30 Compressions (2 fingers for a baby, 1 or 2 hands for a child) then 2 Rescue Breaths.

Cycles of 30 Compressions then 2 Rescue Breaths.

Only stop if child/baby wakes and starts breathing normally.



TIP

Remember, if Rescue Breaths don't make the chest rise effectively check there is adequate head tilt but that the neck is not over-extended, especially in babies.



Defibrillation (AED)

If an AED arrives ask the helper to take over CPR whilst you attach the AED. Switch on the AED and follow voice prompts.

CHEST PREPARATION

- Cut or remove clothing, towel dry sweat and shave chest hair
- Peel pads from plastic liner and attach to the patient's bare chest, ideally working around the person doing CPR.
- Place one pad under the right collar bone
- Place the other pad around the casualties left side, over the lower ribs
- The AED will analysis the hearts rhythm – stop CPR and ensure no one is touching the casualty.

If a shock is advised:

- Ensure no one is touching the casualty
- Push the shock button when directed
- Re-start CPR at ratio of 30:2

If no shock is advised:

- Restart CPR at ration of 30:2

AED ON CHILDREN AND BABIES

There have been continuing reports of safe and successful used of AEDs in children less than 8 years. Majority of AEDs will connect paediatric pads or have a setting to reduce the size of the shock. If this is not available then adult pads should be used.

There are rare case reports of successful use of AEDs in Infants. Focus should be around high quality CPR.

Levels of Response (AVPU)

Unconsciousness ↓



Alert

The child is fully alert and able to talk



Verbal

The child is not fully alert, but does respond to a verbal stimuli



Pain

The child does not respond to your voice but does respond to a tap of the shoulders



Unresponsive

The child does not respond to a verbal or painful stimulus

Recovery Position

When a casualty is unconscious and lying on their back, the lack of muscle tone can cause the tongue to flop over the back of the throat and block the airway. It is also common for a very unwell or unconscious casualty to be sick. Whilst lying on their back, the vomit can block the airway and/or enter the lungs.

The recovery position is a safe and stable position in which to place an unconscious casualty after assessing they are breathing (not just agonal gasps). A casualty in the recovery position should not be left and should be continuously re-assessed. If it is suspected that they have stopped breathing, they should be rolled onto their back and the Primary Survey repeated (DRABC) with CPR commencing if necessary.



Recovery Position - Children and Adults

1

- Remove glasses and straighten legs
- Move the arm nearest you until the elbow is bent with the palm upwards



2

- Bring the other arm across the chest
- Hold the back of that hand against the cheek



3

- Use your other hand to hold the far leg above the knee and pull it up with the foot touching the ground
- Pull that leg to roll the casualty towards you onto their side



4

- Adjust the top leg so that the hip and knee are bent at right angles
- Tilt the head back to maintain an open airway
- Call 999/112
- Continually monitor breathing





Recovery Position - Babies

The safest way to maintain a recovery position in a baby is to hold them in your arms against your body with the head supported and tilted downwards. Take care that your fingers are placed so as not to squash any soft structures in the neck that may obstruct the airway. Breathing should be continuously assessed.



The Secondary Survey

If The Primary Survey (DRABC) has been completed and any life threatening problems have been dealt with, it is safe to perform a secondary survey.

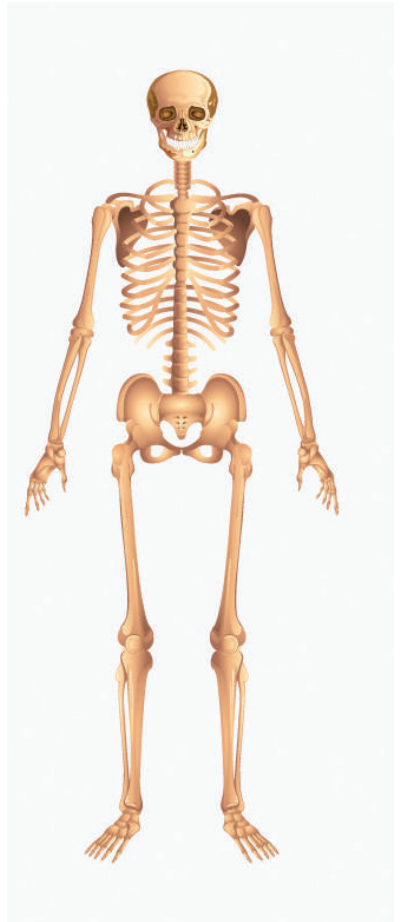
Essentially, a Secondary Survey is a **head to toes** examination of the casualty to try and identify what is wrong.

If the child is unconscious (and breathing), the Secondary Survey should be carried out with the child in the recovery position.

If the child is conscious and able to talk ask them what has happened, how they feel, if anything hurts.

You will need to look for bleeding, swelling, deformity, pale skin, rashes, bruising and any other clues. Wear disposable gloves if possible.

Remember the child's dignity and do not allow them to get cold. You will need to uncover and then re-cover each area, one at a time.



Head and Neck

- Can you see any bruising or swelling over the head and neck? Could they have injured their neck (e.g. in a fall)?
- Are their lips or tongue swollen (e.g. in anaphylaxis)?
- Is there any blood or clear fluid coming from the ears or nose (as this may indicate a skull fracture in a head injury)
- Are they breathing normally?

Shoulders and Chest

- When examining any area of the body where there are two sides, look at both sides at the same time for comparison
- Are there signs of a fracture (see page 63)?
- Look at the ribs and chest. Is their breathing normal or are they working hard to breathe, indicated by rapid breathing or sucking in between or under the ribs?
- If the child is conscious ask them to take a deep breath. Does the chest move equally on both sides? Does it hurt them to take a deep breath?
- Look for wounds, swelling or bruising (bruising could indicate internal bleeding from trauma like a fall or impact)

Abdomen and Pelvis

- Look for wounds or bruising (bruising could indicate internal bleeding)
- Look for signs of bleeding and/or incontinence on the casualty's clothing
- **DO NOT** rock or squeeze the pelvis. If there has been internal bleeding this may worsen as a result

Legs and Arms

- Check each arm and leg comparing both sides. Look for wounds, rashes, signs of a fracture
- If the child is conscious ask them if they can move all their joints

Pockets and Clues

- Look for medicines or a Medic Alert bracelet that may alert you to a hidden medical condition such as epilepsy or diabetes



WARNING

Be very careful putting your hand into a pocket as it may contain sharp objects or used needles.



Choking

CHILD AND ADULT



Coughing: If the casualty is coughing, calmly encourage them to continue coughing.

If the casualty stops coughing OR is unable to speak, cry, take a breath between coughs OR is unable to breath, **perform the following:**

1 5 Back Blows

Shout for help and ask the helper to call 999/112, but do not leave the child/adult yet.

For a small child, lean them over your knee.

In a larger child or adult, bend them forwards so the head is lower than the chest.

Give 5 firm back blows between the shoulder blades with the flat palm of your hand.

Between blows, check to see if you have cleared the obstruction and stop if you have.



IF THE OBSTRUCTION IS STILL NOT CLEARED, PROCEED AS FOLLOWS:

2 5 Abdominal Thrusts

Kneel or stand behind the child/adult. Place both arms around their waist.

Their back should be in contact with your body.

Make a fist with one hand and place it above the level of their belly button, below the ribs.

Grasp this fist firmly with your other hand.

Thrust sharply inwards and upwards.

Do this up to 5 times.

Check between thrusts and stop if the obstruction is cleared.



IF THE OBSTRUCTION IS STILL NOT CLEARED:

3 Repeat Steps 1 and 2

Keep alternating between back blows and abdominal thrusts. Shout for help early and ask the helper to **Call 999/112** but do not stop the treatment whilst the casualty is still conscious.

IF THE CHOKING CHILD OR ADULT BECOMES UNCONSCIOUS, START CPR AND FOLLOW THE SEQUENCE ON PAGES 14 & 16



CHOKING BABY (Under 12 Months)

WARNING

The important difference between treating a choking adult or child and a baby, is that abdominal thrusts should **NOT** be performed on babies. Abdominal thrusts could damage a baby's internal organs causing severe internal bleeding.



If the baby stops coughing OR is unable to cry OR take a breath between coughs OR turns blue OR stops breathing, **perform the following:**

1 5 Back Blows

Shout for help and ask the helper to call 999/112, but do not leave the baby yet.

Sit down or kneel down.

Lay the baby over your arm, with your arm resting on your lap and support the baby safely.

The baby should be face down with head lower than chest.

Use the fingers of your supporting arm to support the baby's jaw taking care not to compress the soft tissues under the chin.

Give 5 firm back blows between the shoulder blades with the flat palm of your hand.

Between blows, check to see if you have cleared the obstruction. Stop if you have.



IF THE OBSTRUCTION IS STILL NOT CLEARED, PROCEED AS FOLLOWS:

2 5 Chest Thrusts

(NEVER perform abdominal thrusts on babies)

Remain seated or kneeling.

Turn the baby over so they are face up and lying along your arm which is across your lap.

Keeping the baby's head well supported but lower than their chest, use 2 fingers on the chest and give up to 5 firm chest thrusts.

Chest thrusts are similar to chest compressions in CPR but sharper and slower.

Check between thrusts and stop if the obstruction is cleared.

IF THE OBSTRUCTION IS STILL NOT CLEARED:

3 Repeat Steps 1 and 2

Keep alternating between back blows and chest thrusts. Shout for help early and ask them to call 999/112 but do not stop the treatment whilst the baby is still conscious.

IF THE CHOKING BABY BECOMES UNCONSCIOUS, START CPR AND FOLLOW THE SEQUENCE ON PAGE 16

AFTER CHOKING TREATMENT

Any child or adult who has required abdominal thrusts and any baby who has required chest thrusts must still have immediate medical attention even if they seem fine.

Any casualty who has a persistent cough, difficulty swallowing, any breathing difficulty or feeling of an object still in their throat should seek urgent medical attention after receiving treatment for choking.

If there is any doubt, medical assistance should be sought.



Anaphylaxis

Anaphylaxis is a severe life-threatening allergic reaction. The body's immune system reacts to something that is harmless for most people. The substance that causes the allergic reaction is called the allergen. Symptoms affect several parts of the body, often within minutes of exposure to the allergen but sometimes after several hours.

Some children and adults can have anaphylaxis if they touch or inhale certain substances, others have anaphylaxis if they eat or drink certain substances.

Common allergens include peanuts, tree nuts, milk, egg, sesame, shellfish, insect stings, latex and penicillin. Allergen avoidance is a crucial part of anaphylaxis management.

TIP

Skin changes are common in anaphylaxis but 20% have no rash.





SIGNS AND SYMPTOMS OF ANAPHYLAXIS

- Swelling of the face, tongue, lips, neck and eyes
- Itchy rash that may have large blotchy pink patches or smaller, speckly, pink, itchy spots
- Difficulty breathing and swallowing
- A hoarse voice
- Stridor (a high-pitched noise when breathing in through a narrowed airway)
- Shortness of breath, wheeze, cyanosis (blueness round lips and face)
- Anxiety, confusion
- Signs of shock, they can look pale and clammy and may feel faint
- A fast pulse
- Collapse, loss of consciousness
- Abdominal pain, sometimes diarrhoea
- Nausea and vomiting





FIRST AID TREATMENT OF ANAPHYLAXIS

1 Call 999/112

2 Position

Sitting if they are having breathing difficulty.

If the main symptoms are of shock and feeling faint, lay them down immediately and raise their legs as shown in the image. **DO NOT sit them up again or stand them up.**



3 Adrenaline Auto-Injector (if the child has one)

Administer the Auto-Injector OR help the child to administer it. This will depend on the child's age and how unwell they are.

Using the Auto-Injector promptly can save a life.



4 Second Dose

If a second dose of adrenaline is available in the child's treatment kit, this can be given after 5 minutes if no improvement in symptoms is seen or if symptoms return.

5 Further Treatment

If the child becomes unconscious, perform The Primary Survey (DRABC) and Start CPR if necessary.

TIP

Childcarers should ideally attend a specific anaphylaxis training course.



Asthma

Asthma is a condition that affects the airways that carry air into the lungs. Certain substances can irritate the airways of someone with asthma. These substances are called **triggers**. Common triggers include animals, dust, cigarette smoke, allergies and cold viruses.

The muscles around the walls of the airways constrict. There is swelling and mucus is produced, narrowing the airways and restricting airflow.



SIGNS AND SYMPTOMS OF ASTHMA

- Difficulty breathing with cough and wheeze
- Difficulty speaking, unable to complete a sentence without taking a breath
- Pale, clammy skin
- Increased effort of breathing, using muscles in the chest and neck to help breathing
- Grey or blue lips (if very severe)
- Exhaustion (severe)
- Loss of consciousness or respiratory arrest in a severe/prolonged attack



FIRST AID TREATMENT OF ASTHMA

Inhalers are the main treatment for asthma. All young children vulnerable to Asthma should have a spacer device for their inhaler so that the medicine is breathed in and delivered to the airways.

- Be very calm and try to distract the child from their symptoms
- If the attack is severe/worsening/the child is blue/unable to talk or exhausted **call 999/112** immediately



- Help the child to sit upright, they may need to lean on a table or chair
- Help the child to use their reliever inhaler with spacer
- Give 2 puffs every two minutes. You can give up to 10 puffs if needed
- If the child is no better after this or you are still worried **call 999/112**
- If the child has had an asthma attack or having worsening asthma symptoms but you have not needed to call an ambulance, they should still see a doctor or asthma nurse within 24 hours



TIP

It is essential that you know which inhaler is the *reliever* as most *preventer* inhalers will not help relieve symptoms during an asthma attack and symptoms may worsen.



WARNING

DO NOT take the child outside for some fresh air as cold air can make an attack worse.

DO NOT lie the child down. Only lie a child with breathing difficulty down if they become deeply unconscious (and then perform the Primary Survey and commence CPR if necessary).

DO NOT delay calling an ambulance if you are worried, even if it is the middle of the night. Asthma can be dangerous if left until the morning.



Croup

Croup is a common childhood illness that causes swelling of the airway close to the voicebox.

Usually it is an alarming but mild illness but sometimes the airway narrowing can be severe and urgent hospital treatment can be needed. It is an airway problem so it is vital that childcarers and parents know when to seek medical attention.



SIGNS AND SYMPTOMS OF CROUP

The main symptoms of croup usually first appear at night and last 1-3 days.

- Noisy and distressed breathing. There is sometimes a high pitched noise when the child breathes in (known as Stridor) and the child may breath rapidly
- The child may be using the muscles in his/her neck and chest to help them breath
- A short harsh cough that sounds like a seal barking
- The child may be pale and clammy and possibly have blue tinged lips
- A high temperature (but usually less than 38.5 degrees C)



FIRST AID TREATMENT OF CROUP

- Be **calm** and try and keep the child calm. This is essential as distress can further narrow the airway
- Sit the child up as this will help their breathing
- Seek medical advice
- Lower the fever. A high temperature can make a child feel more distressed and make their breathing faster
- Cool air. It sometimes helps to have a walk outside, carrying the child upright. The change in humidity can help reduce the airway swelling

NOTE children having an asthma attack should **NOT** be taken outside for fresh air as cold air can make breathing more difficult in an asthma attack.

- **Call 999/112** if the child is blue/drowsy/worsening/unable to swallow



WARNING

NEVER put your fingers down a child's throat. This can cause further swelling and cause them to stop breathing.

NEVER give cough medicine to a child with croup. It will not help and can make them drowsy which can be extremely dangerous in any child with breathing difficulties.



Drowning

In the UK, drowning is the third most common cause of accidental death in children.

Up to 80% of drowning cases are thought to be **PREVENTABLE**.



FIRST AID TREATMENT OF DROWNING

- Shout for help and ask the helper to call an ambulance
- If possible, try to avoid entering the water **REACH OR THROW, DON'T GO**
- Try and keep the child horizontal or head slightly lower than the body during the rescue to reduce the risk of the victim inhaling water. Remember there may be neck and spinal injuries
- Perform The Primary Survey (DRABC) and start CPR if necessary. Vomiting is common ([see page 12](#))
- Treat for hypothermia ([see page 49](#))
- Always take the casualty to hospital, even if they appear to be fully recovered. This is because even small amounts of water in the lungs can cause the lungs themselves to produce large quantities of fluid hours later, causing sudden and severe breathing difficulties



Meningitis

Meningitis is inflammation of the covering layers over the brain and spinal cord, usually caused by bacterial or viral infection.

Meningitis is a serious illness but if detected quickly and treated promptly, many children make a good recovery. Delayed detection and treatment can lead to severe disability or death. In some cases meningitis can kill in as little as 4 hours. Early recognition and seeking prompt medical attention is therefore crucial.

Meningitis affects all ages. Children and babies under 5 years old are most at risk as their immune system is not well developed. The second most at risk group are 14-24 year olds, especially students as they are studying and living in close proximity.



SIGNS AND SYMPTOMS OF MENINGITIS

The early symptoms of meningitis and septicaemia (the blood poisoning form of the disease) can look like any other childhood illness.

Septicaemia can be present without meningitis and in some cases of meningitis a rash may not appear.

WARNING

If there is no rash or if a different rash is present DO NOT be falsely reassured. Seek urgent medical attention if you are worried that other signs and symptoms are present.



The signs and symptoms of meningitis may not all be present and may appear in any order.

Classical symptoms:

The casualty may complain of a headache, stiff neck or dislike of bright light.

Other symptoms:

They may also have difficulty supporting their own weight, a fever, vomiting and diarrhoea and confusion and drowsiness.



Meningococcal Septicaemia Symptoms:

The casualty may complain of aching limbs (particularly leg pain), cold hands and feet and/or a rash which starts like pin prick spots and develops rapidly into purple or black bruising.

WARNING

In babies and very young children, the classical neck stiffness and dislike of bright lights are much less common making detection even more difficult.



MENINGITIS IN BABIES AND YOUNG CHILDREN

Babies with meningitis may also have:

- Blotchy skin, pale or bluish
- A high temperature **OR** the baby may feel cold
- A tense or bulging soft spot on their head (fontanelle)
- A baby may refuse to feed, be irritable and have a high pitched cry, especially when held
- A baby may have seizures
- They may be floppy rather than stiff and difficult to wake up

The Rash and **THE TUMBLER TEST**

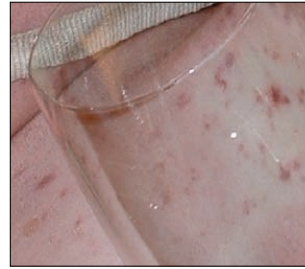
If any baby, child or adult is unwell and develops a rash, do the **tumbler test**.

The rash can be more difficult to see in pigmented skins, so check paler areas such as the soles of the feet, palms of the hands, roof of the mouth and inside the eyelids.

If a glass tumbler is pressed firmly against the rash typical of meningitis septicaemia, the marks will **NOT** fade. You can look through the glass to see the rash as you apply pressure.

GET MEDICAL HELP IMMEDIATELY.

Pictures used with kind permission of the Meningitis Research Foundation www.meningitis.org



WARNING

If the rash fades with pressure but you remain concerned, STILL SEEK URGENT MEDICAL ATTENTION as they could still have meningitis.



FIRST AID TREATMENT OF MENINGITIS

- If the rash is present or the baby/child is getting worse quickly **call 999/112** for emergency help and call the parents
- If you suspect meningitis but the rash is not present and the child is not worsening rapidly and they are alert, call the child's GP
- If the child's GP is not available, go immediately to nearest emergency department
- The early signs of meningitis can be like any other childhood illness but then the baby or child can worsen very quickly. **You may need to be insistent**



Seizures

A seizure is the correct term for a fit or convulsion. A seizure is caused by a sudden burst of excess electrical activity in the brain. There are many different types and appearances of a seizure.



CAUSES OF SEIZURES

There are many, including:

High temperatures in young children (see febrile convulsions, [page 44](#)), epilepsy, meningitis, head injuries, poisoning, lack of oxygen, low blood sugar, brain tumours, stroke (children as well as adults).

WHAT IS EPILEPSY?

Not everyone who has a seizure has epilepsy. Epilepsy is the tendency to have recurrent seizures. It is usually treated with medicines to try and prevent or control the seizures.

TYPES OF SEIZURES

There are many different patterns of seizures. Two common childhood patterns are Absence Seizures (i.e. the child suddenly switches off, stares into space and does not respond for a few seconds) and Tonic - Clonic Seizures (such as febrile convulsions) which have three phases as follows:

Tonic Phase: Loss of consciousness, stiffness throughout body and if standing will fall to the floor. The child is unaware but may involuntarily cry out.

Clonic Phase: Jerking of the limbs, the eyes may roll back and there may be loss of bladder or bowel control. They may bite their tongue and breathing may be very loud, like snoring.

Post-Ictal State: After a seizure, children are often very sleepy, confused or agitated. This phase can last several minutes, hours or occasionally several days.



FIRST AID TREATMENT OF SEIZURES

- Protect the child from injury, cushion their head with folded clothing or your hands



- Make a note of the time and loosen any tight clothes
- Call 999/112 if this is the child's first seizure **OR** it lasts more than 3 minutes **OR** the child has another seizure before they have fully recovered from the first **OR** the child has sustained an injury during the seizure **OR** if you feel the seizure has lasted longer than the child's usual seizures **OR** is a different pattern to their usual seizure
- Once the seizure has stopped, check Airway and Breathing and place in the recovery position ([see page 19](#))
- Stay with the child until emergency services arrive or they fully wake up. Constantly monitor Airway and Breathing. Speak calmly in a reassuring manner as they wake

WARNING

DO NOT restrain the child's movements - this can cause injury

DO NOT put anything in their mouth

DO NOT give them anything to eat or drink until fully recovered

DO NOT attempt to bring them round



Diabetes

Insulin is a chemical produced by the pancreas that helps to burn off the sugars that are eaten. Normally the right amount of insulin is produced according to how much sugar has been eaten. If someone has diabetes, their body does not produce enough insulin (sometimes none) or their body does not respond to insulin appropriately.

People with Type 1 diabetes (the commonest childhood form) usually need to inject insulin several times a day to regulate their blood sugar level. Children have to regulate the amount of sugar they eat to balance with the insulin injected. Exercise also burns off sugar so this also has to be considered.

If not enough sugar is eaten, blood sugar levels may drop dangerously low. This is called hypoglycaemia.

Hypoglycaemia can commonly occur when a child is unwell with a cold or other viral illness and doesn't want to eat or starts vomiting but normal insulin doses have been taken. It also occurs if a child has had a lot of exercise and not eaten enough. Occasionally an accidental insulin overdose can be the cause.

WARNING

Hypoglycemia is extremely dangerous. It is vital that a first aider can recognise the symptoms and take swift action.



MORE INFORMATION ON DIABETES IS PROVIDED ON THE FOLLOWING PAGES



SIGNS AND SYMPTOMS OF HYPOGLYCAEMIA (LOW BLOOD SUGAR)

- Usually rapid onset and rapid deterioration
- Unusual or strange behaviour. The child may appear drunk, they can be aggressive or even violent
- Confusion, memory loss
- Pale, clammy, cold skin
- Difficulty walking and unsteady
- Drowsiness which without prompt treatment will deteriorate into loss of consciousness or seizures
- Shallow rapid breathing and a fast pulse

TIP

A Medic Alert bracelet/necklace or warning card may alert you to the condition.



WARNING

Hypoglycaemia is especially dangerous at night as the evening insulin will still be working, the child will sleep and not eat.





FIRST AID TREATMENT OF HYPOGLYCAEMIA (LOW BLOOD SUGAR)

- Immediately give a sugary drink (an isotonic sports drink is best if available), sugar, sweets, jam, glucose tablets, orange juice, or other sweet foods. Follow the sugary drink/food with a carbohydrate such as biscuits or toast which will help keep the sugar level up longer
- Even if the child appears recovered, seek urgent medical advice as the insulin will still be in the blood stream and sugar levels will drop again. **ESPECIALLY AT NIGHT**
- If the child has lowered levels of consciousness/if you cannot get them to eat or drink/if they vomit what you have given them **call 999/112**. Some children have been prescribed a glucagon injection that parents and carers are trained to use. This requires specific training
- If the child becomes unconscious perform The Primary Survey (DRABC). If they are unconscious or drowsy and breathing, place in the recovery position



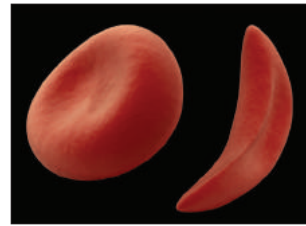
WARNING

Never try to give an unconscious child anything to eat or drink.



Sickle Cell Anaemia

Sickle cell anaemia is an inherited blood disorder most common among people of African and Caribbean origin but also found among people from the Middle East, India and Pakistan.



Normal Red Blood Cell (left)
Sickle Cell (right)

Sickle Cell can now be screened for in babies as part of the **heel prick** test at around 5 days old.

Red blood cells are the blood cells that carry oxygen around the body. In Sickle Cell Disease the red blood cells have a tendency to be distorted into a sickle shape. They are then less good at carrying oxygen and also much less flexible which can cause blockages in small blood vessels. This can lead to damage to internal organs. When the red blood cells start to do this it is called a **sickle cell crisis**.

The sickle cells do not live as long as normal shaped red blood cells resulting in severe anaemia which can cause tiredness and breathlessness.

Children with Sickle Cell Anaemia are also more at risk of some serious infections.

All carers of children with Sickle Cell should receive detailed information from the parents on how to manage a sickle cell crisis for that individual child.

Common triggers include:

- Sudden temperature changes (especially getting cold)
- Over-exertion
- Infections
- Stress or emotional upset
- Dehydration
- Poor nutrition
- Low oxygen (e.g when flying or at altitude)





SIGNS AND SYMPTOMS OF A SICKLE CELL CRISIS

- Severe pain - this is often in bones, joints, back, hips, arms, legs, chest, fingers
- Stiffness and swelling of joints, especially fingers, hands, feet
- Drowsiness
- Jaundice (the whites of the eyes may go yellow)
- Infection, may be sudden and severe
- Shortness of breath
- Signs of a stroke i.e. face drooping, one sided weakness, speech difficulties or loss of consciousness



FIRST AID TREATMENT OF A SICKLE CELL CRISIS

If the child has an individual treatment plan, it should be followed. If no treatment plan is in place, follow these basic guidelines:

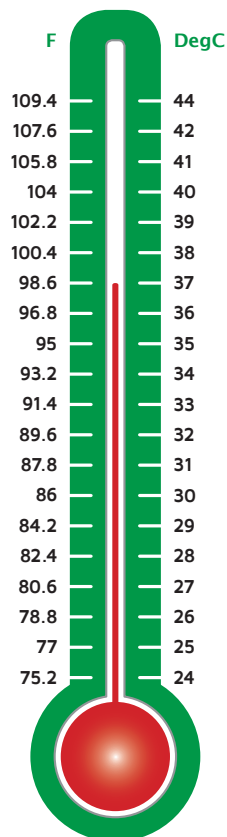
- Call parents without delay
- Administer pain killers as agreed in advance with parents (advanced signed consent) as sickle cell crises can be incredibly painful. Document all medication given
- Seek urgent medical advice
- **Call 999/112** for an ambulance if the child is in unmanageable pain, is short of breath, confused or showing signs of a stroke

Body Temperature

Normal body temperature is between 36.5 degC and 37.5 DegC.

It is a good idea to have a thermometer in the home or childcare setting and to keep an eye on the temperature if you feel the child in your care is unwell. However, do ensure that the thermometer is the correct type for the age of the child and that you follow the instructions carefully to read it accurately. Do not be falsely reassured by a normal temperature reading. If you are concerned about the child **seek medical attention**.

Paracetamol and Ibuprofen are often used to bring a high temperature down. **Always** seek medical advice for any young baby with a high temperature even if they appear well.



Febrile Convulsions

Febrile Convulsions are common. This is when a child has a seizure when they have a high temperature (over 38 degC), usually as a result of an infection. Most febrile seizures occur between the ages of 6 months and 3 years.

Although terrifying for parents and carers, most febrile seizures are harmless and stop by themselves. Occasionally the child requires medicines to stop the seizure and sometimes the source of infection will need to be investigated and treated.



The child will usually have been unwell before the seizure and will feel hot.



FIRST AID TREATMENT OF FEBRILE CONVULSIONS

- A calm, confident approach is essential and take note of the time
- Protect the child from injury, cushion their head with folded clothing or your hands
- Remove warm clothing and bed covers. Ensure the room temperature is cool but do not over-cool the child. **DO NOT** use a fan or wet sponge to cool the child
- Call 999/112 for emergency help
- Once the seizure has stopped check the Airway and Breathing. If breathing, place the child in the recovery position
- Stay with the child until emergency services arrive and constantly monitor Airway and Breathing

Heat Exhaustion

This condition is caused from the loss of salt and water through excessive sweating. Typically, this will be after a day exercising or playing actively in hot weather. The symptoms come on gradually, usually in the late afternoon or evening.



SIGNS AND SYMPTOMS OF HEAT EXHAUSTION

- Headache
- Dizziness
- Confusion
- Loss of appetite
- Nausea and stomach cramps
- Cramps in legs and/or arms
- Sweating
- Pale, clammy skin
- Hot to touch



FIRST AID TREATMENT OF HEAT EXHAUSTION

- Move the child to a cool place and lay them down with their legs raised
- Remove outer layers of clothes
- Give the child plenty of cool drinks
If possible give an oral rehydration solution
- If the child deteriorates and becomes drowsy, place in recovery position and **call 999/112** for emergency help
- Monitor Airway and Breathing
- Ensure that the child sees a doctor promptly even if he/she recovers quickly



Heat Stroke

This is a very serious condition where the brain is no longer able to control the body's temperature. The body becomes dangerously overheated. The body is no longer able to sweat to help cool down.



SIGNS AND SYMPTOMS OF HEAT STROKE

- Headache
- Dizziness
- Hot, dry skin (no sweating)
- Nausea and vomiting
- Severe confusion
- Agitation and restlessness
- Deteriorating level of consciousness, possibility of seizures
- Body temperature usually over 40 degC



FIRST AID TREATMENT OF HEAT STROKE

- Quickly move the child to a cool, shaded place
- Call 999/112 for emergency help
- Remove as much outer clothing as possible
- Wrap the child in a cold wet sheet
- Keep the sheet wet and cold, until the temperature is less than 38 deg C then replace with a dry sheet
- If the child has a seizure, treatment is as for Febrile Convulsions (see page 46)

Hypothermia

Hypothermia occurs when the body temperature falls below 35 degC. Children under 4 are especially at risk.

Hypothermia can be caused by immersion in cold water. Children who have been rescued from **near drowning** are especially at risk.



SIGNS AND SYMPTOMS OF HYPOTHERMIA

- Cold, pale, dry skin
- Shivering but as the body gets colder shivering may stop
- Slow speech and slow movements, lethargy
- Agitation, confusion, drowsiness
- Slow, shallow breathing
- Eventually, the child may lose consciousness



TREATMENT OF HYPOTHERMIA

- Move to a warm dry place
- Quickly replace any wet garments with warm, dry clothing, wrap the child in blankets and cover their head
- Give the child warm drinks
- If unable to move the child indoors use a survival bag and shelter if possible
- Always seek medical advice for hypothermia. If the symptoms are severe or if there is no improvement after a few minutes **call 999/112** for emergency help
- Stay with the child. If they become unconscious, maintain Airway and Breathing. If they are breathing, place in the recovery position, ensuring that the child is insulated from the cold ground by blankets/insulating materials



WARNING

DO NOT Give alcohol to any casualty with hypothermia.

DO NOT Place direct heat sources such as hot water bottles or fires on or near the child as this may warm them too quickly or cause burns.



Bleeding and Blood Volume

The amount of blood travelling around the body is known as the *Circulating Volume*. Adults have a circulating volume of about 6 litres of blood but **children and babies have significantly less**. The amount of blood in the circulation varies enormously depending on the size of the child e.g. a 9 year old may have around 2 litres of blood (one third of an adult's) and a 3 year old as little as 1 litre. We can routinely give 600mls of blood when we give blood and feel little or no effect. This would be more than the entire blood volume of a young baby. **It is essential to understand that relatively small volumes of blood loss in a child or baby can be very serious.**

CRITICAL BLOOD LOSS

After about one third of the circulation volume has been lost the body can no longer compensate, blood pressure falls quickly, the casualty will lose consciousness and the heart will finally stop.

WARNING

The critical blood loss volume for a small baby can be as little as a yoghurt pot's worth.





FIRST AID TREATMENT OF BLEEDING



SIT OR LAY

the child down.

EXAMINE

Put on disposable gloves if available. Look at the wound and check for foreign objects.

PRESSURE

Apply direct pressure over the wound, ideally using a sterile non-fluffy dressing from a first aid kit. If this is not an option, use your hand or a clean tea towel or anything that can be pressed over the wound to slow the blood loss.

DRESS

Apply direct pressure over the wound, ideally using a sterile non-fluffy dressing from a first aid kit. If this is not an option, use your hand or a clean tea towel or anything that can be pressed over the wound to slow the blood loss.

Shock

Shock is the term used when the circulation fails and is unable to provide the organs in the body with oxygen.

Shock requires immediate emergency treatment to prevent organ damage and cardiac arrest.

Shock is caused by a fall in blood circulation volume or in blood pressure and can be caused by severe bleeding. This bleeding may be internal bleeding ([see page 54](#)).

Loss of other body fluids can also cause shock e.g. severe diarrhoea, vomiting or serious burns. Other causes include severe infection (such as meningitis) and anaphylaxis.



SIGNS AND SYMPTOMS OF SHOCK

- Pale, clammy skin, blue/grey around the lips if severe
- Weakness and dizziness or losing consciousness (especially if they try to sit or stand up)
- A fast, weak pulse
- Nausea, possibly vomiting
- Confusion, restlessness, behavioural change (the circulation is unable to deliver oxygen to the brain)



FIRST AID TREATMENT OF SHOCK

- Lay the child down raising their legs higher than the heart (this improves the blood flow to vital organs)



- Call for help if alone and **call 999/112**. Loosen any tight clothing at the neck or waist
- Try and identify and treat any obvious cause (treat external bleeding as described on [page 52](#))
- Keep the child warm by covering body and legs with blankets or coats but be careful not to overheat
- Do not let the child eat or drink
- Constantly monitor. If the child loses consciousness perform The Primary Survey (DRABC) and give rescue breaths and start CPR if necessary

Internal Bleeding

Internal bleeding may not be obvious. Large quantities of blood can be lost into the body cavities like the chest, abdomen and pelvis or from large bone fractures such as the thigh bone.

Internal bleeding can occur after an impact such as a road traffic accident or a fall. It can also be caused by a penetrating puncture wound where the wound on the surface is small but a large internal blood vessel has been damaged. Internal bleeding can cause shock.

The main signs of internal bleeding are those of shock ([see page 53](#)). You may also see bruising over the area and the child or adult may complain of severe pain.

TIP

Suspect internal bleeding after an accident if signs of shock are present but you cannot see much (or any) blood.



Haemostatic Dressings

These contain an agent that works through rapid absorption of the water content of blood concentrating the cellular and protein components of the blood encouraging clotting. Training is required to make sure application is safe and effective.

Haemostatic dressings are used for life-threatening bleeding that cannot be controlled by direct pressure to the neck, abdomen or groin.

- Identify the exact point of severe bleeding and apply pressure. This may be inside the wound to mop out any excess blood with an ordinary dressing
- Tightly pack the entire wound with a haemostatic dressing and pack the whole dressing into the wound if possible
- Compress the packed dressing for 5 minutes. If bleeding continues then repeat
- Once bleeding is under control, leave the haemostatic dressing in the wound and cover with an ordinary dressing
- The packet of the haemostatic dressing needs to go hospital with the casualty.

Tourniquets

Only used for life threatening bleeding, which cannot be controlled by direct pressure. Tourniquets are a device that is tied round a limb to temporarily reduce blood flow to an arm or leg. A tourniquet needs to be:

- Applied around the thigh or the upper arm at least 5cm above the wound, unless the injury is below the knee or elbow then the tourniquet should be applied just above the knee or elbow
- Tighten the tourniquet until the bleeding is no longer life threatening. This will be very painful to the child so reassure them as best you can
- If the bleeding is still not under control then consider direct pressure or a haemostatic dressing or a second tourniquet as a last resort
- Ensure **999/112** has been called
- Note the time the tourniquet was applied preferably on the tourniquet itself

Nosebleeds

Childhood nosebleeds are usually from the tiny blood vessels at the front of the nose, just inside the nostrils. A bang to the nose, blowing the nose and sneezing can cause nosebleeds but frequently they are from nose picking! More rare causes are high blood pressure and bleeding disorders. Children who have very frequent nosebleeds should see a doctor.

Blood from the nose after a head injury, especially if it appears to be mixed with clear fluid is very concerning as it may indicate a skull fracture.

Nosebleeds can very occasionally lead to severe blood loss and be dangerous.



FIRST AID TREATMENT OF NOSEBLEEDS

- Sit the child down with their head tipped forwards, reassure them
- Pinch the soft part of the nose, maintaining pressure for 10 minutes
- Tell the child to breathe through the mouth and spit out any blood they feel trickle into their mouth
- Advise the child not to sniff, speak or swallow until it has stopped (they can dribble though)
- If it hasn't stopped after 10 minutes, repeat this 1-2 more times. If bleeding persists take the child to hospital in an upright position. If there are signs of shock, **call 999/112** and treat for shock ([page 53](#))
- Tell the child to avoid picking or blowing the nose, exercise and hot drinks for a few hours



TIP

DO NOT let the head tip back as the blood could get into the airway or run into the stomach and cause vomiting.



Embedded Objects

DO NOT remove the object from the wound. The embedded object could be **holding** the bleeding of a vein or artery that may bleed much more if you remove it.

Treatment is the same as described on [page 52](#) BUT to apply pressure, build up the sterile dressings around the object to apply pressure either side (not over it).



Amputation

A limb or digit (finger or toe) that has been severed can often be re-attached in hospital.

The priority is to treat the bleeding and shock. The treatment should follow the same sequence ([see page 52](#)), treating for shock if needed and **call 999/112**.

Then:

- Wearing disposable gloves if available, place the amputated part in a plastic bag
- **DO NOT** wash the severed part
- Place the package on a bag of ice
- **DO NOT** allow the severed part to touch the ice directly as this and washing can damage the tissues and reduce the chances of re-attachment

Bites and Stings

ANIMAL BITES

Animal bites leave jagged wounds that have a high risk of infection and scarring.

Even if the wound is superficial, antibiotic treatment is likely to be needed and urgent medical attention should be sought.

Meanwhile the first aider should:

- Reassure the child
- Clean the wound with warm water, using sterile gauze if its available but NOT cotton wool
- Treat for bleeding if necessary (see page 52)
- Pat the wound dry and cover with a sterile, non-sticky dressing
- Take to hospital and seek urgent medical attention

If bitten overseas, there is a risk of rabies and the casualty may need anti-rabies injections - another reason to seek urgent medical attention



INSECT STINGS

Insect stings may cause:

- Pain
- Redness
- Swelling
- Look for signs of anaphylaxis



CONTINUED OVERLEAF

Usually, wasp, bee and hornet stings are painful but not dangerous. Multiple stings however, can cause a serious reaction and they sometimes get infected. A sting in the mouth or throat can cause dangerous swelling that may obstruct the airway. With any bite or sting it is important to look out for signs of anaphylaxis and treat accordingly (see page 27).

- Reassure the child
- If the sting is visible scrape it off with a credit card or finger nail (do not use tweezers as this may inject more poison into the wound)
- Elevate the injury if possible (if on a limb) and apply an ice pack for 10 minutes
- If the sting is in the mouth, ask the casualty to suck an ice cube
- **Dial 999/112** if signs of swelling within the mouth or signs of anaphylaxis (and treat as per page 27)

TICK BITES

Ticks are tiny creatures found in woodlands and grass. Ticks can carry Lyme Disease and also cause infection, so need removal.

Incorrect removal can lead the tick to bury its mouth parts more securely into the wound where they can be left behind as the body is broken off. These can then lead to infection.



- Ideally use a proper tick removal tool (available from the Lyme Disease Association www.lymediseaseaction.org.uk, or vets and pet shops)
- Alternatively use clean, pointed tweezers to grasp the tick as close to the skin as possible without squeezing the tick's body, then gently pull the tick without twisting
- Save the tick in a container
- Seek medical advice

DO NOT try to burn the tick off or use any chemical on the tick.

Minor Injuries

SPLINTERS

Seek medical advice for very deep/large splinters.

For small, superficial splinters, clean the area with warm soapy water. Then use tweezers to grip the splinter and slowly pull it out at the same angle it would have entered the skin. Gently squeeze the wound to encourage a little bleeding, wash again, dry and cover with a sterile dressing.

Ensure the child has been immunised against tetanus (especially important in dirty wounds).

BRUISES

Bruising is caused by bleeding under the skin. This can be caused by a blow to the skin or can indicate underlying damage such as a broken bone.



Treatment of Bruises

An ice pack may help reduce swelling and pain for injuries like bruises and sprains. An ice pack can be made from filling a plastic bag with small ice cubes or frozen peas. Wrap the bag in a dry cloth.

WARNING

To prevent skin damage, always wrap ice in a cloth and do not apply for more than 10 minutes before letting the skin regain normal colour and temperature before re-applying.



GRAZES

Grazes are wounds where the top layers of skin have been scraped off. Usually this is caused by friction or from a sliding fall.



Treatment of Grazes

Grazes usually heal very quickly but they can contain particles of dirt that can become infected.

Wash the wound using clean water, wiping from the centre of the wound outwards.

TIP

DO NOT use cotton wool to clean wounds as fibres can be left behind in the wound.



If the graze is large or needs to be protected from further damage (e.g. the child picking at it), apply a sterile, non-stick dressing.

FOREIGN OBJECT IN EAR OR NOSE

Young children commonly push objects into their ears and noses.

A foreign body in the ear can cause discomfort and temporary deafness. It can occasionally damage the eardrum. A foreign body in the nose can block the nose and if not removed can cause infection.

DO NOT try and remove the foreign object. This can cause serious injury and may push it further inside the body. Take the child to hospital (or arrange for their parents to take them) and reassure the child.

Insects can fly into the ear which is scary and unpleasant for a child. Sit the child down with their head on one side and the affected ear facing upwards. Pour slightly warm water into the affected ear to float the insect out. If this is unsuccessful the child will need to go to hospital to have it removed.

Eye Injuries

FOREIGN OBJECTS IN THE EYE

Dust and small particles can be washed off the surface of the eye by pouring over clean water from a cup with the eyelids gently held apart. Ensure that the good eye is the higher one so that the particles are not simply washed into the other eye.

If this is unsuccessful, seek medical help. Tell the child not to rub their eye.

WARNING

DO NOT touch anything that is sticking to or embedded in the eyeball or over the coloured part of the eye.



CHEMICALS IN THE EYE

The eye can absorb chemicals rapidly and the eye can be damaged within minutes of being in contact with a chemical. It can be extremely painful. The priority is therefore to try and wash out the chemical with copious amounts of clean water and **call 999/112**.

Ensure that you wear gloves and that the affected eye is the lower eye so that the chemical is not washed into the unaffected eye. You may need to gently open the child's eyelid to irrigate the eye as fully as possible.

SERIOUS EYE INJURIES

The priority is to prevent further damage and to get urgent medical help.

Try and get the child to sit as still as possible and hold a sterile dressing over the injured eye. If possible, ask the child to also close their good eye, as movement of the good eye will cause the injured eye to also move. **Call 999/112**.



Fractures

A fracture is a break or a crack in the bone. Considerable force is required to break a healthy child's bone.



SIGNS AND SYMPTOMS OF A FRACTURE



- Pain, tenderness, swelling and bruising
- Inability to move or use the fractured limb/area
- A fracture can cause abnormal movement at the injured area
- The area may be an abnormal shape
- There may be coarse grating of the bone ends as they move against each other. This may be felt or heard if the casualty moves but should not be tested for
- There may also be signs of shock ([see page 53](#)) especially if the fracture is to the thigh bone or pelvis
- There may also be a wound with bone exposed or protruding



FIRST AID TREATMENT OF A FRACTURE



- Keep the injury still, reassure the child and keep them warm
- Support the injured limb or area with your hands and immobilise if possible. Placing a pillow or cushion on the child's lap will help support an arm injury. A sling may be used for an arm fracture ([see page 67](#))
- **Call 999/112** if the suspected fracture involves the head/neck/spine/pelvis/thigh bone, if there is any breathing difficulty, signs of shock, there is a large wound or bone visible or if you are unable to manage the child's pain or keep the injury still
- If it is an open fracture with a wound, loosely cover with a sterile non-fluffy pad or dressing. If there is bleeding apply pressure either side of the bone (as you would for an embedded object, [see page 57](#))
- Arrange for the child to be taken to hospital (if you haven't called 999/112)
- Do not allow the child to eat and drink in case they need a general anaesthetic. However, pain killing medicines are acceptable if given appropriately. Record the time and dose
- Meanwhile check for signs of shock and treat accordingly ([see page 53](#))

Dislocation

This is an injury where the bones are pulled out of their normal position and usually associated with torn ligaments. Occasionally, joint dislocation can damage surrounding tissues such as nerves which can have serious consequences.



SIGNS AND SYMPTOMS OF A DISLOCATION

- Severe pain
- Difficulty moving that area or asymmetrical movement between limbs
- Swelling and bruising around the joint
- Deformity, shortening, bending or twisting of the area

TIP

It is often difficult to tell the difference between a fracture and a dislocation. If in doubt treat as for a fracture.



TREATMENT OF A DISLOCATION

Treat in the same way as fractures (see page 63) **DO NOT** try and reposition a dislocated bone back into position as you may cause further damage and pain and swelling.

Sprains and Strains

Fractures can often be very difficult to distinguish from a sprain. An X-ray is sometimes needed to be sure. So, if you are in doubt at all do treat as though the injury is a fracture and take the child to see a doctor promptly.

Sprains occur when the ligaments, muscles or tendons are overstretched and partially or completely torn. They are a common sports injury.



SIGNS AND SYMPTOMS OF A SPRAIN

- Pain and tenderness
- Pain and difficulty in moving the joint
- Swelling and/or bruising



FIRST AID TREATMENT OF SPRAINS

This is commonly remembered using **R.I.C.E.**



REST

Rest the injury.



ICE

Apply an ice pack (wrapped in a towel) for 10 minutes at a time ([see page 60](#)).



COMPRESSION

Apply a firm but not constrictive bandage over a layer of soft padding such as a dressing or cotton wool. Check the circulation of the area beyond the bandage every 10 minutes. It is important that this bandage is checked by medical staff as soon as possible.



ELEVATION

Elevate the injury to reduce the blood flow to the area. This will help minimise the bruising and swelling.



Support Slings

A support sling can be used for supporting the lower arm for injuries such as a sprained wrist or closed fracture. The following pictures show the sequence of how to apply a sling. If it is for a small child you may need to fold the triangular bandage in half so you start with a smaller triangle.



Head injuries

Head Injuries are potentially very serious. They may result in lowered levels of consciousness which may impair the child's airway and even cause respiratory arrest. They may lead to permanent brain damage or death.

Concussion and compression are conditions that may arise from a head injury.



CONCUSSION

The brain is cushioned within the skull by a layer of fluid. If there is a blow to the head, the brain can move from side to side in the skull causing temporary but widespread disturbance of brain function. It is not usually associated with long term damage to the brain.

There may be:

- Loss of consciousness - this is usually brief and concussion can occur without loss of consciousness
- Dizziness
- Nausea and possibly vomiting
- Loss of short term memory (especially of the accident)
- Mild headache

COMPRESSION

This is potentially fatal and almost always requires surgery. Compression occurs where bleeding or swelling within the skull results in a build up of pressure on the brain. Compression may develop immediately after a head injury but may also appear hours or even days later. This is one reason why communication between parents and childcarers about any bang to the head is vital.

WARNING

The signs and symptoms of compression may be identical to concussion until a few moments before the casualty suffers respiratory arrest. No head injury symptoms should be ignored and all should be taken seriously. Do not be falsely reassured if only concussion symptoms are present.



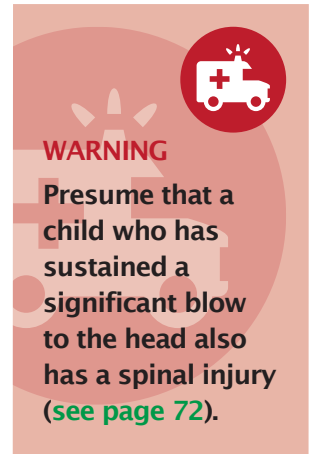
There may be:

- A history of a recent head injury (but symptoms may appear hours or even days afterwards. There may have been an apparent full recovery)
- An intense or worsening headache
- Nausea and vomiting
- Drowsiness and there may be loss of consciousness (late)
- Breathing may be noisy and slow (late sign)
- Confusion
- Change in behaviour e.g. a baby may just not feed as usual or a toddler may seem irritable. The child may just not be their usual self
- There may be weakness on one side of the face or body
- Difficulty with speech
- Pupils may be unequal (late sign)
- Seizures

FIRST AID TREATMENT OF A SERIOUS HEAD INJURY

Call 999/112 IMMEDIATELY if any of the following have occurred:

- There has been a loss of consciousness, even if the casualty appears to have fully recovered
- Vomiting
- Severe headache
- Irritable or unusual behaviour
- Any signs of a skull fracture
- Memory loss
- You notice any signs of concussion
- The casualty doesn't seem right to you



First Aid Treatment

- Lie the child down, reassure them, encourage them to keep still
- Keep the head, neck and body in line in case there is a spinal injury
- Perform The Primary Survey (DRABC), giving rescue breaths and CPR if required. If the child is unconscious and breathing, carefully place in the recovery position
- If there is bleeding apply gentle pressure around the wound, preferably with a sterile, absorbent non-fluffy dressing
- If there is bleeding or discharge from an ear, do not try to plug the ear or try to stop the flow
- Perform The Secondary Survey and treat other injuries as required
- Stay with the casualty constantly monitoring breathing and levels of consciousness
- Do not allow the child to eat or drink until they have seen a doctor



TREATMENT OF A MILD HEAD INJURY

After a head injury, if there has been no loss of consciousness and the child appears completely well:

- Do not allow the child to play on in sports until they have seen a doctor
- Make sure the child is not alone for the next 24 hours
- Inform the child's parents or childcarers who may be taking over from you
- Children who have had a head injury but appear recovered and well should be allowed to have a sleep if they want to. However, they should be checked regularly to see if they can be woken as normal

SKULL FRACTURES

A serious head injury can be present without a skull fracture. However, the presence of a skull fracture will increase the likelihood of a brain injury. **Call 999/112** if you suspect a skull fracture.

Suspect a skull fracture with any child who has had a head injury, especially if there has been impaired consciousness. Look for:

- A bruise or wound on the head
- Bruising or swelling behind one ear or around one or both eyes (panda eyes)
- Clear fluid or what looks like watery blood coming from the nose or ear

Spinal Injuries

A child may suffer spinal injuries following a significant blow to the head, neck or back. These injuries most commonly result from falling from a height, being hit by a car, diving into shallow water or any incident causing multiple injuries.



FIRST AID TREATMENT OF SPINAL INJURIES

- Reassure the child, keep them warm and encourage them to keep still
- Do not move the child from where you found them unless they are in severe danger and there is no alternative
- Hold the child's head keeping the head, neck and body in line. However, if this distresses the child and makes them move more, it is better to let go and reassure them
- Call 999/112



If the child is unconscious:

- Perform The Primary Survey (DRABC). If the child is not breathing you will have to gently perform **Head Tilt - Chin Lift** as opening the airway takes priority
- If the child is unconscious and breathing but vomits or you have to leave them to **call 999/112** or if their breathing becomes noisy or laboured, you will need to carefully place them in the recovery position. Keep the head, neck and body in line as you turn them (preferably with help)
- Do not leave the child and constantly monitor their breathing until help arrives

Electric Shocks

An electric shock is caused when electrical current passes through the body to travel to earth.

Electrical injuries most commonly occur in the home from domestic low voltage current. Children are at risk as they are naturally inquisitive. Playing with electrical items, especially if they are faulty is extremely dangerous.

High voltage electrical shocks from power lines and lightning are usually fatal. High voltage current may arc (jump) up to 18 metres from the power source. It is therefore not safe to approach a casualty you see near a damaged power line. Insulating material such as wood or plastic will not protect you. The appropriate course of action is to **call 999/112** for help and they will contact the power company. Meanwhile, clear the area and prevent others from approaching. Remember, do not allow children to fly kites near power lines.



CONSEQUENCES OF AN ELECTRIC SHOCK

An electric shock may cause the heart to go into an abnormal rhythm or may cause a respiratory or cardiac arrest.

As electricity passes through the body it may cause burns. There may be a small burn visible at the point the electricity entered the body but internal, invisible burns may be extensive.

Other injuries such as fractures and head injuries may occur if the child is thrown or falls with the electric shock.



FIRST AID TREATMENT OF ELECTRIC SHOCKS

- Ensure that it is safe to approach. Check whether the floor or casualty is wet
- Is the casualty still in contact with the electrical supply? If they are the supply must be switched off at the mains or at the meter point before you touch them or you could sustain a severe electric shock. If this is not easily accessible, unplug the appliance or wrench the cable free
- **DO NOT** touch anything metal or anything wet
- Complete The Primary Survey (DRABC)
- If airway and breathing are fine, treat any burns or injuries
- Even if the child has apparently recovered and there are no obvious associated injuries it is important that you take them to hospital for a check up
- **Call 999/112** if the child has been unconscious at all, or if they have sustained electrical burns

Poisoning

A poison is a substance (solid, liquid, gas) which if taken into the body in sufficient quantity may cause temporary or permanent damage.

Some poisons cause symptoms very quickly, others hours later but they can still be very serious.

A poison can be corrosive (e.g acids, bleach, dishwasher tablets, ammonia or petrol) or non-corrosive (e.g tablets, drugs, alcohol, plants, perfume).

Poisons can enter the body by being swallowed, absorbed through the skin, inhaled, splashed into the eyes or injected.



SIGNS AND SYMPTOMS OF POISONING

- The child may have burning around the lips and mouth, nausea and vomiting, abdominal cramps, irregular or fast or slow heart beat, drowsiness or even unconsciousness
- If the poison is absorbed through the skin there may be pain, burning, redness, blistering, itching or a rash at the site
- If the poison is inhaled, there may be difficulty in breathing, confusion, cyanosis (bluey grey skin discolouration especially round lips and face)
- Some poisons can also cause blurred vision, seizures and anaphylaxis



FIRST AID TREATMENT OF POISONING

- Make sure it's safe to help and that you are not going to be exposed to the chemicals
- Reassure the child and **DO NOT** shout at them. They may not tell you vital information about what they have taken if they are scared or distressed and the symptoms may worsen. Try and find out how much has been taken

- **Call 999/112** and provide the ambulance crew with as much information as possible about the poison
- Look for clues such as empty packaging and take it with you to hospital if this can be done safely
- Dilute the substance to try and wash it away if possible. If splashed onto the skin or eyes, irrigate with copious amounts of clean water. If a corrosive substance has been swallowed, ask the child to rinse out their mouth with water and to sip water or milk
- If the casualty loses consciousness, perform The Primary Survey (DRABC) and start CPR if necessary. If there are any chemicals on the casualty's mouth use a pocket mask or face shield for rescue breaths. If they are breathing, place in the recovery position



WARNING

Never attempt to make the child vomit, this can be extremely dangerous.



TIP

If you know a child has swallowed something that they shouldn't have and they seem well, do still call your local Emergency (A and E) Department for advice. Staff there can access a National Poisons Database for specific information.





FIRST AID TREATMENT OF INHALED POISONS SUCH AS SMOKE OR FUMES

- Move the child into fresh air as soon as possible
- Check DRABC and resuscitate if necessary
- If the child is breathing but unconscious, place them in the recovery position
- **Call 999/112** for emergency help
- If the child is conscious but has breathing difficulties, sitting upright may help
- Check and treat for any burns
- Do not leave the child and constantly re-check Airway and Breathing



WARNING

Children who have been rescued from a fire may seem completely fine and then suddenly develop serious breathing difficulties. You must therefore still seek urgent medical attention.



Burns and Scalds

There are many different causes of burns. They include flames, hot objects, scalds from steam or hot liquids, chemicals such as bleach and caustic soda, electric shocks, cold (e.g. frostbite) and radiation (e.g. sunburn).



FIRST AID TREATMENT OF BURNS

All children (and babies) require urgent medical attention for any burn and should be taken to hospital. If the burn is severe or if you're in any doubt, **call 999/112 for an ambulance**.

1 Cool

Cool the burn immediately with cold running water, preferably under a cold running tap. Do this for at least 10 minutes.

If water is not available, any cool, harmless, clean liquid (e.g. milk or canned drinks) is better than no cooling at all but switch to water as soon as possible.

Be careful not to cause hypothermia in small children. Only cool the area of the burn.



2 Remove

Wear disposable gloves if possible. If the burn is a chemical burn take care that it does not go on your own skin.

Remove any watch or jewellery before the tissues swell. Remove loose clothing. **DO NOT** remove clothing that is sticking to the burn.



3 Dress

Dress the burn with a sterile dressing that will not stick. Cling-film is a good temporary dressing. Discard the first couple of turns from the roll and apply it loosely and lengthways so that it will not cause constriction if there is swelling.

Alternatively a sterile, non adherent dressing can be used if available.

Seek urgent medical attention



WARNING

DO NOT Burst blisters

DO NOT Touch the burn

DO NOT Apply creams, lotions or fats

DO NOT Apply sticky dressings or tapes

DO NOT Remove clothing that has stuck to the wound



Giving Medications

Before you agree to give a medicine on behalf of a parent or legal guardian you should ensure the following:

- The child's parent or legal guardian has provided written and signed consent that includes clear instructions, dosages and timings
- The instructions from the parent regarding dosages and timings should match that of the pharmacy label or packaging
- You should record in writing the time and dosage each time you give a medication. It is advisable that the parent reads and signs this when they collect the child
- The medicine should be stored in a safe place out of sight and reach of children
- You should keep all medicine records safely in case they are required at a later date
- Some medications, (for example injections), require specific training from a qualified medical professional and this will need to be arranged before the child is left in your care



Accident Reporting and Record Keeping

If you are looking after someone else's child it is important that all details of an illness or injury are reported to the parents as soon as possible. In a nursery, child-minding, pre-school or school environment, an accurate written log of the incident needs to be made. It is also advisable to make a written record if you are a nanny or au-pair. For accuracy, this should be done as soon as possible after the incident. This may be needed for an insurance claim, if a minor injury becomes more serious or if there are a series of incidents that require further investigation.



AN ACCIDENT REPORT SHOULD INCLUDE:

- Full name and date of birth of the casualty
- Name and contact details of the person who dealt with the accident
- Names of any witnesses
- Date and time of the accident
- An accurate description of what happened and the injury sustained
- The treatment given in chronological order and who gave it
- What (if any) medical help was sought
- Layout of the incident area including the positioning of equipment, position of the child and position of the adults - a sketch is ideal
- Further action required (to prevent re-occurrence)
- Parents signature to confirm they have received this information

**An accident record book is available from the
National Childminding Association www.ncma.org.uk**

First Aid Kits

It is essential that you have a Paediatric First Aid Kit in your home or childcare setting and that you know where it is. It is also important to know the contents of the kit and what each item is for. We also recommend keeping one in your car.

WARNING

No medicines, tablets, creams, lotions or antiseptic wipes should be put in a first aid kit intended for the use on children. Cotton wool should not be used to clean wounds as it can leave fibres behind in the wound. Sterile gauze swabs should be used to clean wounds.



THE FOLLOWING IS A LIST OF SUITABLE CONTENTS FOR A PAEDIATRIC FIRST AID KIT:

- Box to contain kit should have white cross on a green background
- First Aid Guidance Leaflet
- 20 individually wrapped plasters
- 2 sterile eye pads
- 4 triangular bandages
- 6 safety pins
- 2 large, individually wrapped, sterile dressings (unmedicated)
- 6 medium, individually wrapped, sterile dressings (unmedicated)
- 2 pairs of disposable gloves
- Moist wipes that do not contain antiseptic or alcohol
- 1 pair of blunt round-ended scissors
- 1 resuscitation faceshield
- 1 finger bandage and applicator
- 5 non-adherent dressings
- 1 roll of tape such as *Micro-pore*
- 5 packs sterile gauze swabs



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