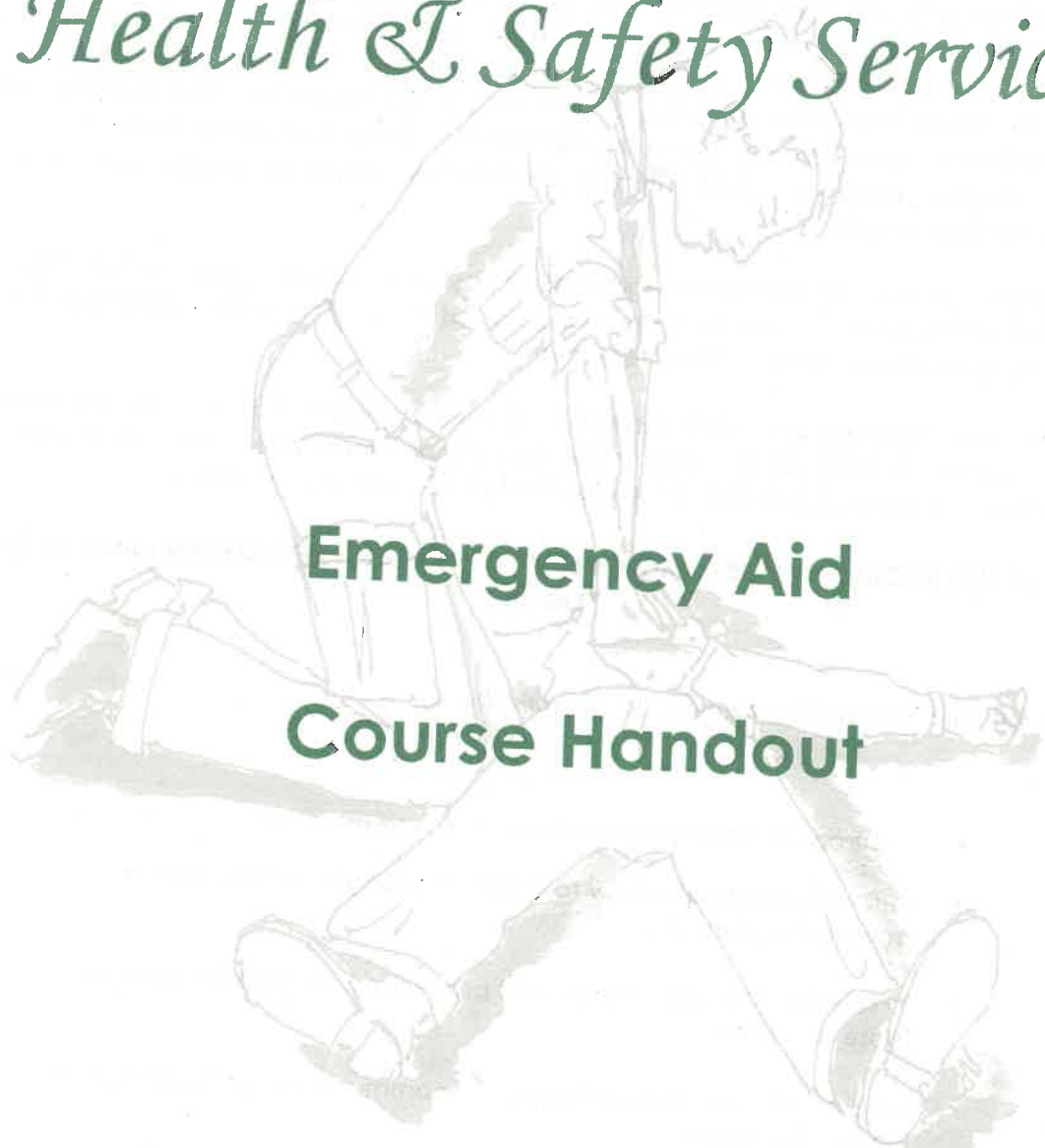


M.R.P.
Health & Safety Services



Emergency Aid
Course Handout

Emergency Aid

The Emergency Aid course is a 3 hour course that introduces participants to Emergency medical situations and teaches them the skills to deal with them. The course is ideal for those organizations requiring Emergency Aiders to supplement First Aiders, Sports coaches to fulfill their Governing Body criteria or anyone wanting to learn get a foot on the First Aid ladder. The requirements regarding First Aiders and First Aid facilities are defined by the Health and Safety (First Aid) Regulations 1981. Failure to comply with these regulations and a failure to comply with any of the general requirements contained in the Health and Safety at Work Etc. Act 1974 can lead to prosecution of an organisation. To comply with the regulations employers must undertake assessments of all their First Aid requirements, and put in place sufficient numbers of First Aiders and first aid equipment as is deemed necessary by the assessments.

Health and Safety has seen an increase in legal actions, the courts however look on First Aider's as Samaritans and wish to preserve good will, and therefore, as long as First Aider's adhere to the training they have received, the law will protect them.

This booklet has been created to endorse the M.R.P. H&S Training First Aid at Work, and First Aid at Work refresher courses. The first aid procedures are those recommended by the Resuscitation Council (UK) Resuscitation Guidelines (Updated 2010), and the First Aid Manual 8th Edition.

NO PART OF THIS BOOKLET CAN BE REPRODUCED WITHOUT THE EXPRESSED PERMISSION OF MRP H&S TRAINING

Aim of the M.R.P. H&S Training Emergency Aid at Work course:

- To introduce Emergency Aid practice and principles
- To teach candidates how to assess and diagnose casualties in Emergency situations
- To teach candidates the correct procedures for the treatment of Those situations
- Give candidates the confidence to communicate and delegate as Emergency Aider's

Contents

Emergency Aid.....	2
Contents	3
Principles and Practice of First Aid.....	4
Assessing and Dealing with Situations:.....	4
Primary Survey.....	6
Making A Diagnosis.....	7
Recovery Position	8
Resuscitation	9
Choking.....	12
Asthma.....	13
Heart conditions	14
Head Injuries.....	15
Spinal Injury.....	17
Making A Report.....	18
First Aid Kits	19

Principles and Practice of First Aid

FIRST AID

This is the first assistance given to someone with an injury or sudden illness, continuing until medical help arrives (ambulance; doctor; etc.), or the casualty is removed to hospital.

We must remember the aims of First Aid. (PLP):

To **PRESERVE LIFE**

- a) Strict attention to safety, yours, bystanders then the casualty's
- b) ABA of resuscitation
- c) Obvious injuries such as major blood loss

To **LIMIT THE EFFECTS OF THE CONDITION**

- a) Diagnosis of illness or injury, use examination and history
- b) Priority, treat multiple injuries in order (quietest casualty first)
- c) Remember those hidden injuries or illnesses

To **PROMOTE CASUALTY'S RECOVERY**

- a) Relieve pain, reassure and make comfortable
- b) Arrange correct medical attention
- c) Assume neck or back injuries at car accidents

Assessing and Dealing with Situations

When arriving at an incident state that you have first aid knowledge and ask if you can help. If no one more experienced is present, then take charge of the situation.

Use bystanders to control traffic, and create physical barriers around casualty. Send for the most appropriate help, ask for a reply from any volunteers who go.

Assess the whole situation

Decide what it is you are dealing with, for example the number of casualty's, dangers and potential assistance available.

Make Safe

If possible, remove the danger from the casualty; switch off electrical equipment, ignitions, gas etc. Be aware of your limitations - never put yourself at risk! Only if circumstances prove otherwise should you remove the casualty from the danger.

Take precautions to protect yourself from body fluids by using disposable gloves, glasses and resuscitation aids.

Assess the casualty

Once safe then you can assess all the casualty's conditions to decide on the most appropriate action.

Life threatening condition

Treat all life threatening conditions first, giving them priority over other potential injuries.

Remember – Breathing is essential for life

- Bleeding can lead to loss of life

Get Help

Send or go for help, and ensure those passing on information remain calm to prevent confusion.

Using the telephone - give your number, location, and casualty's location, number of casualty's involved. Also include specific information such as Chemicals involved; fire etc.

Emergency Action Plan (EAP)

Do you have an **Emergency Action Plan** at your organization?

Does anybody in your organisation have an existing medical condition?

As well as Emergency First Aid, what else needs to be done in an Emergency?

What plans can you put in place to make the response to this emergency effective?

Do you know the address where you are?

Who calls the Emergency Services? **999/112**

Can the Emergency Services get to you quickly once they arrive (can someone wait at the entrance or on the car-park).

Where is the nearest hospital, how far is it and how do you get there?

Is there an AED (De-fibrillator) on your premises or is there one close by?

Do other participants/workers need to be evacuated and if so, where to (do they need supervising)?

Primary Survey

The primary survey should always be followed on discovery of a casualty.

Assess

DANGER: are you safe, are all bystanders safe and is the casualty safe? *If not make the situation safe before progressing.*

RESPONSE: is the casualty conscious or unconscious? – gently shake casualties Shoulder's and shout 'can you open your eyes' (Note AVPU, Page 08).

If Conscious; Treat illness/injury accordingly and place in a comfortable and safe position.

If Unconscious;

- Shout for help
- **AIRWAY:** ensure casualty has a clear airway, then ensure it is open (Page 09)
- **BREATHING:** check casualty is breathing normally take up to 10 seconds

If breathing; then place in recovery position, if spinal injury suspected only place in the recovery position if the airway is in danger or you need to leave the casualty.

If Not breathing normally; Follow resuscitation guidelines (see Page 10)

Note: If you suspect a spinal injury, always check for breathing before moving the casualty.

Medications

As First Aiders, it is important to remember that we are not trained to administer any form of medication, including casualty's own prescribed medication.

Confidence

It is important to remain calm at all times to instill into the casualty confidence in our abilities as First Aiders. Always be honest with the casualty, and remember that they are often scared and may require constant reassurance.

Safety

The use of protective equipment is essential to protect First Aiders from potential infection. Protective equipment, whilst not sterile, can also increase the protection offered to a casualty from possible infection carried by the First Aider. Therefore always explain to the casualty and or relatives, that the equipment used is important for the casualty's safety.

First Aiders may wish to seek advice from their medical advisors regarding the provision of immunisation from hepatitis, the task undertaken will dictate the level of risk which will in turn dictate any need for immunisation.

M.R.P. H&S Training – Emergency Aid
Making a Diagnosis

If the casualty responds to you then you may need to commence First Aid, **DIAGNOSE**, to decide what first aid is required for the illness or injury as soon as possible.

In order to achieve this, precise details relating to the **HISTORY** of the problem or casualty's past medical history are noted, and then visible **SIGNS** looked for and any **SYMPTOMS** taken into account.

- There are two considerations:
- 1) is the casualty conscious?
 - 2) is the casualty unconscious?

History:

- > What the casualty can tell you, (how, when) the incident occurred.
- > What others present can tell you, bystanders may have seen the accident or the onset of the illness.
- > What you see, or have seen, for instance medications; injuries also everything about the environment etc.

All the information you gather must be collected and recorded for the emergency services. Other clues may be a past medical problem e.g. history of diabetes; epilepsy; head injury. Casualty's age is also important; a fracture will be far more serious for an elderly person in comparison to a younger person.

If the casualty was involved in an accident try to discover how the injury came about, some injuries are associated with certain types of incident, e.g. 'whiplash' car crash or broken collar bone from falling on out stretched hand. These are called the 'Mechanics of injury'.

Signs:

Use your own senses with regards to the casualty or scene of the accident:

- SIGHT - respiration; bleeding; wounds; foreign bodies; skin colour; swelling; Deformity; puncture marks; facial expressions and anxiety
- TOUCH - dampness; abnormal temperature; pulse; deformity; tenderness
- SMELL - alcohol; burning; gas; solvents and glue, breath
- HEARING - crepitus; sucking sounds (chest); breathing patterns noisy, rasping, fast or slow.

You may also find other clues such as medications or medic alert or SOS medallions

Symptoms:

Any illness or injury will show itself by feelings the conscious casualty will experience such as: Pain, nausea, loss of sensation, weakness, faint, cold, hot, loss of movement, amnesia, dizziness.

Examining a Casualty

Observe for Any Clues Main points to look for whilst examining the casualty:

- | | | |
|---|---|----------|
| A – Alert- a normal response level | V – Voice – Responds to your voice | A |
| P – Responds to pain/mild stimuli | U – Unresponsive | V |
| | | P |
| | | U |

Always treat the casualty where they are found unless in danger.

M.R.P. H&LS Training – Emergency Aid
Recovery Position

A casualty who is breathing but remains unconscious needs to be placed in the recovery position to **maintain a Clear Open Airway**; this is achieved by stopping the tongue blocking the throat. Should you suspect a spinal injury immobilise the casualty

Before placing the casualty in the recovery position follow the Primary Survey and ensure you:

- a) Check and open the airway
- b) Check breathing is normal - if not breathing normally get help and resuscitate
- c) If breathing normally deal with any serious bleeding or injury then
- d) Place in the recovery position

One approved method is:

Step One - Kneeling beside casualty:

1. Ensure you open the airway
2. Loosen tight clothing and remove glasses
3. Bring the casualty's feet together



Step Two - With palm upwards:

1. Place the arm closest to you palm upwards in the surrender position
2. Place the back of the far hand against nearside cheek
3. Raise far leg so the foot is flat on the floor turning it slightly under the nearest knee



Step Three - Protect the head:

1. Protect and support casualty's head with your hand nearest the head
2. Grasp thigh above knee and using your body weight rock back-wards pulling the casualty towards you



Final position:

1. Bend leg at right angle and tilt the head back
2. Do not leave the casualty alone unless help has not yet been called for
3. Check the Radial (wrist) pulse in the hand originally placed in the surrender position to ensure the blood supply is not cut off
4. Monitor and record vital signs



If the casualty remains in the recovery position for 30 minutes consider turning them on to their other side, injuries permitting.

M.R.P. H&S Training – Emergency Aid Resuscitation

Resuscitation uses three natural elements in order to supply oxygen to the Brain and Heart.

1. An open clear airway.
2. Breathing via respiratory system.
3. Circulation.

To Open an Airway:

Place one hand on the casualty's Forehead, with two fingers of your Other hand under the angle of his Chin.

Then gently tilt their head backwards.



Check for Normal Breathing:

Listen for normal breathing - place your face over the casualty's mouth and look down the chest - feel for breathing on your face - listen for breathing - look for breathing on the chest and feel for movement on the abdomen. Do this for up to 10 seconds.

Circulation:

Where a casualty is not breathing correctly their circulation is dangerously compromised, we therefore do not waste time looking for signs of circulation.

Survival Chain:

Casualty's chances of survival are increased by:



Cardio-pulmonary resuscitation (CPR) rarely starts the heart on its own, but it does increase the casualty's chance of survival. If the heart's muscle is starved of oxygen for more than 3 minutes, 'it will die', and once 'dead' it cannot be re-started.

M.R.P. H&S Training – Emergency Aid
Resuscitation methods

A casualty who is unresponsive and not breathing normally is treated as having suffered a cardiac arrest. Therefore it is vital that Cardiopulmonary Resuscitation is commenced as soon as possible having ensured that help has been summoned

Once we have decided that normal breathing is absent we must immediately give the casualty 30 Chest Compression.

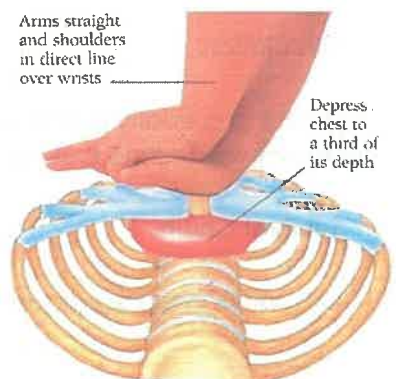
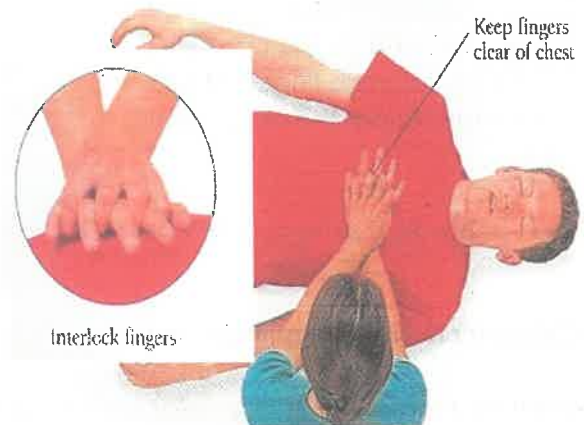
Chest Compressions

Chest compressions must be given by pressing on the centre of the casualty's chest over the breast bone (*sternum*).

Place the heel of one hand on the breastbone, only the heel of the hand should be in contact with the chest during compressions.

Place your other hand on top of the hand on the chest and interlock the fingers of both hands

Using your upper body weight press down vertically 5 to 6 cm (2 inches), at a rate of 100-120 compressions per minute.



Rescue Breaths

Once we have given the casualty 30 chest compressions we must then administer 2 rescue breaths.

Where damage to, or contamination of the casualty's face is a factor that will prevent the first aider giving rescue breaths then the resuscitation should continue by giving chest compressions alone. Your first aid kit should contain items that may reduce contamination in these circumstances. (Face Shield)

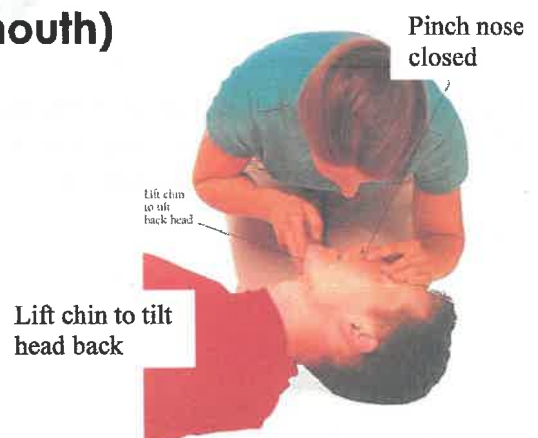
The casualty does however stand a better chance of recovery where compressions are associated with rescue breaths.

Giving rescue breaths (Mouth to mouth)

Place the casualty on their back if you are unable to do mouth to mouth in their current position

Ensure the airway is clear, look in mouth if empty tilt head backwards and lift chin with two fingers

If available and if you have been trained use resuscitation face shield.



M.R.P. H&S Training – Emergency Aid

Pinch and seal the casualty's nose. Take a normal breath.

Seal your mouth completely around the casualty's mouth

Breathe out gently into the casualty for 1 second, keeping the head tilted backwards; look at the casualty's chest to see it fall as the air escapes via their mouth.

Repeat once more giving the casualty 2 effective rescue breaths in total.

If there is difficulty inflating the casualty's chest, re-check the head position, that the mouth is clear, the nose is closed and that you have a perfect seal around the mouth. Only attempt a maximum of 2 rescue breaths to every 30 compressions.

Stop only - When help arrives

if you cannot continue or

if casualty's condition seems to improve, stop to check, but continue without delay if normal breathing has not resumed.

Where two first aider's are present it is advisable that each takes a turn at providing resuscitation at a rate of 30 compressions to 2 rescue breaths, changing places every two minutes.

Quick resuscitation guide

Assess the Situation

For Danger (If Present, Make Safe)

Assess the Casualty

For Response - Shake and Shout (No Response) Check the Mouth Is Clear Then Open the Airway Check Breathing - Up To 10 Seconds

Not Breathing Normally

Go For, or Send for Help, Ask for a defibrillator!

Give 30 Chest Compressions

Give 2 Rescue Breaths

Continue 30 Compressions to 2 Rescue Breaths (30:2)

Continue Until

Help Arrives or You Cannot Go on or Casualty Begins to breathe normally.

Choking

Any large object stuck in the throat or passed down the windpipe (*trachea*) may stop air passage or even induce swelling of the area. This requires prompt action by the first aider.

Partial blockage allows limited breathing, it is often accompanied by whistle or wheezing sounds. Where a casualty is able to speak then encourage them to cough until the blockage is freed.

Signs and Symptoms:

1. Casualty unable to speak properly may cling to throat showing distress
2. Obvious breathing problems
3. Casualty may show signs of cyanosis - grey/blue skin colour
4. May have been eating at time of emergency

Treatment:

Encourage casualty to cough

1. Bend the casualty forwards and give five back slaps using open hand palm to casualty's back between the shoulders
2. If blockage remains, **only then** perform abdominal thrusts
 - a) stand behind casualty
 - b) link your hands across their abdomen
 - c) force one fist inwards and upward
 - d) repeat this maneuver five times
3. If blockage remains; alternate back slaps and thrusts repeating steps 1 and 2 three times, if blockage remains dial 999/112 for help



If Abdominal Thrusts Are Used and the Obstruction Becomes Dislodged, It Is Advisable For the Casualty to Seek Medical Advice

Casualty becomes unconscious:

1. Ensure mouth clear and airway open
2. Check for signs of normal breathing for up to ten seconds - look, listen, feel
3. If normal breathing is absent begin chest compressions. Giving 30 compressions to 2 rescue breaths.
4. If the casualty is breathing normally place them in the Recovery Position

This is a condition due to air passages that carry oxygen deep into the lungs going become inflamed, congested or narrowed making breathing difficult. In an extreme attack can stop the casualty breathing altogether.

Causes:

- Nervous tension: stress, fright etc.
- Allergy: dust, animals etc.
- Colds and flu
- Areas with poor air quality
- Smoke
- cold/dry air

A casualty will often suffer a sudden attack, often without any warning.

Signs and Symptoms:

1. Anxiety, particularly if the attack is prolonged
2. Difficulty in breathing, with long breathing out periods
3. Difficulty in speaking, with gasping in between words
4. Cyanosis in prolonged attacks
5. Distressed
6. Coughing

Treatment:

There is a need to improve breathing.

1. Reassure the casualty, give them confidence
2. Sit them down and lean them forwards with support if possible
3. Ensure a good air supply, open windows etc (be aware of cold/dry air)
4. Allow the casualty to administer their own medication which should work within 5 minutes.
5. If the medication isn't working, for prolonged or severe attacks that are not responding to treatment, or the casualty's own medication - seek medical help. 999/112

While waiting for medical help allow the casualty to take their normal dose of medication every two minutes to see if it improves their condition

Asthma sufferers may use different types of medication:

- Aerosol inhalers
- Nebulisers
- Spin hailer
- Turbo inhalers
- Tablets

Brown Inhaler – Preventer

Blue Inhaler - Reliever



M.R.P. H&S Training – Emergency Aid
Heart Conditions

Angina Pectoris:

(Heart cramp) caused by a narrowing of the blood vessels that supply the heart.

Signs and Symptoms:

1. Pain in the chest (possibly arms) during exertion, may be felt in neck and jaw
2. Pain easing during rest
3. Shortage of breath and feeling weak
4. Looks ashen and possibly may have blue lips, ears etc.
5. Possible irregular pulse rate

Treatment:

1. Rest the casualty in a sitting position to remove heart strain
2. Reassure them
3. Loosen clothing around neck and waist
4. Allow them to take their own medication, if available
5. If pain continues or worsens or returns, call an ambulance

NOTE: with rest and treatment, the attack should pass quite quickly

Heart Attack:

A sudden interruption in the normal working of the heart. Causes may be coronary thrombosis; blockage in a coronary artery or heart disease.

Signs and Symptoms:

1. Sudden crushing vice like pain in the chest, which will become persistent and does not improve with rest
2. Pain in the arms, the neck, jaw, back and abdomen (a general pain)
3. Ashen colour with blueness around lips and extremities
4. Breathing problems, and air hunger or gasping
5. A **WEAK RAPID PULSE**
6. Sweating, cold, clammy (signs and symptoms of shock)
7. A feeling of doom

Treatment:

1. Rest in most comfortable position, 'W' position often helps
2. Go or send for urgent help, 999/112
3. Allow the casualty to take their own medication, if available
4. Keep checking breathing rate, pulse, AVPU
5. Reassure the casualty
6. keep them warm



Head Injuries

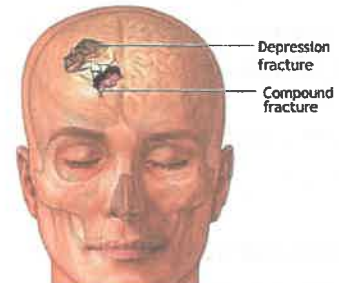
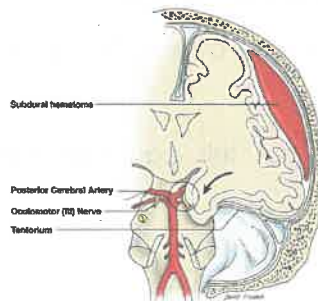
Any break or crack in the domed vault, caused by a direct blow to the head, or an indirect injury usually from a drop onto the feet sending 'shock waves' through the body.

Suspect a fracture after any head injury; a doctor can only give correct diagnosis.

Types:

Concussion , Cerebral Compression & Fractured Skull

A concussion is a violent jarring or shaking that results in a disturbance of brain function



Fractured Skull - Signs and Symptoms:

1. History of an injury
2. Bruising to the face, possibly around the ears
3. Soft 'boggy' patch felt on skull
4. Level of response begins to drop
5. Clear fluid mixed with blood from ears/nose
6. Blood in eye whites
7. Distortion to head

Treatment:

Treat as for head injuries below and ensure casualty goes to hospital

A fracture will often probably have **a concussion** or **compression injury** present.

Concussion or Compression:

Resulting from damage to or disturbance of the brain with effects on levels of consciousness that may follow.

Concussion

Widespread, temporary disturbance to the brain - 'brain shaking' Caused by a blow to the head; fall from a height; or blow to the jaw

Signs and Symptoms:

Possible unconsciousness briefly, with:

- Shallow breathing
- A pale face
- Skin cold and clammy
- Pulse rapid and weak
- Nausea or vomiting
- Loss of memory

Ask the casualty questions such as date; time; location to ensure a good recovery

Treatment:

1. If casualty loses consciousness, treat as such then if the casualty deteriorates after seeming to recover or you suspect a more serious injury Dial 999/112
2. On recovery, watch the casualty closely
3. Advise them to see their doctor

Remember compression can follow

Compression

A build up of blood within the skull or a fracture, or a swelling of the brain due to pressure enforced on the brain within the skull.

Compression can often be associated with a head injury, or can be due to other illnesses such as a stroke or tumor.

Compression can follow concussion, but this can take hours or days to develop.

Signs and Symptoms:

1. Drop in response levels
2. Noisy breathing
3. Pulse full strong and slow
4. Pupils unequal
5. Flushed dry face with a high temperature
6. Weakness on one side
7. Irritable and or disorientation

Treatment:

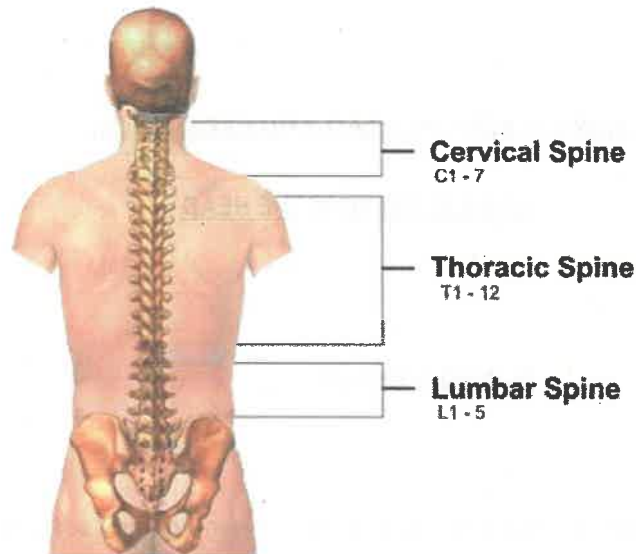
1. **Dial 999/112** - oxygen needed to the brain to slow down damage
2. Sit them down on the floor
3. Lean them to the affected side
4. Head and shoulders slightly raised
5. Observe response levels at set intervals, along with breathing and pulse rates
6. If casualty loses consciousness, treat as such, lay casualty on affected side if one is obvious

Be Aware Of Possible Spinal Injuries With All Head Injuries

M.R.P. H&LS Training – Emergency Aid
Spinal Injury

Function of the Spine:

It gives a means of attachment for the muscles and ligaments to the spine thereby supporting the head and trunk. It also protects the spinal cord.



Any injury to the spinal column can be potentially fatal or debilitating. The most vulnerable areas are the neck/cervical area, lower back/lumbar region.

Suspect an injury to the spine where the casualty is involved in a road traffic accident, fall, twisting of the spine, or a hit to the head.

Signs and Symptoms:

1. Pain or loss of sensation, general across the body or localised to a limb or other area
2. Limbs feel weak, tingling or burning
3. Casualty may state they feel stiff, heavy or clumsy
4. Loss of bodily functions
5. Possible breathing problems
6. Step or other deviation to the spine
7. Tenderness around injury site

Treatment: *Conscious casualty

1. Dial 999/112
2. Do not move, unless in danger
3. Reassure them
4. Support the head with hands
5. Use blankets, boxes to stabilise the casualty
6. Treat as urgent



Support the head



Stabilise the casualty

NEVER ATTEMPT TOO MUCH!!

Treatment: *unconscious casualty

1. Remember priorities use the primary survey
2. Kneel behind the casualty and support the head
3. Gently lift the jaw using your fingers but do not raise tilt the head
4. If medical help is delayed or the casualty has problems breathing, place in the recovery position

ALWAYS KEEP THE HEAD AND BACK IN LINE

ALWAYS SUPPORT THE HEAD

Making a Report

Keeping Records:

It is vital that any information we gather is passed on to the emergency services. List all treatment we have given.

Written information is better than verbal if possible.

You Should Pass On:

- . Levels of response, report (A VPU)
- . Pulse
- . Respiration
- . Color
- . Blood loss
- . Treatment administered
- . Chemical data sheets if relevant

These are better recorded at ten-minute intervals from arrival to hand over.

Standard Forms and Legal Requirements:

After any First Aid incident details of that incident and any First Aid administered must be recorded and the relevant paperwork for your work area and completed as soon as is practical and stored securely.

Books or Forms we use for this purpose need to be kept along side our First Aid Equipment. It is important that all accidents are recorded in the Accident Book; this is a legal requirement under HSE legislation. Accident information is vital this allows employers to target accident black spots; also certain accidents have to be reported to the Health and Safety Executive.

First Aid Containers

The Health and Safety Commission have created guidance notes on first aid containers and their contents, as per the revised Approved Code of Practice.

First Aid Kits must be suitable for the area they are situation eg, a First Aid Kit for a sporting environment may include ice-packs, compression bandages etc

Containers can be purchased complete or empty from many chemists or first aid equipment suppliers, as can extra materials i.e. dressings; adhesive dressings etc.

AN AVERAGE CONTAINER MAY CONTAIN:

- X Guidance leaflet (x1)
- X Resuscitation Mask (x1)
- X Adhesive dressings (blue for catering) Note some people may be allergic to such Dressings (x20)
- X Triangular bandages (sterile preferably) (x4)
- X Safety pins (x6)
- X Medium 12cm x 12cm individually wrapped dressing (x6)
- X Large 18cm x 18cm individually wrapped dressing (x2)
- X Eye pad (sterile) (x2)
- X Disposable gloves (x1 pair) non powdered and be aware of allergies

You may also assess the need for items such as: - sterile wipes; scissors; adhesive tape etc. Containers must have a white cross on a green background.

Always Discard Any Out Of Date or Damaged Packages

