



# ABC First Aid Guide

BEST  
SELLER

Clear & Simple First Aid Advice



**International  
Emergency Numbers**  
2010 Guidelines



Dr Audrey Sisman

# ABC FIRST AID GUIDE

3rd Edition 2011

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PO Box 106, Mapleton, Qld 4560

Author: Dr Audrey Sisman, MBChB

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This book has been written based on current guidelines and requirements as defined by:

- Australian Resuscitation Council
- New Zealand Resuscitation Council
- European Resuscitation Council
- Epilepsy Association of Tasmania
- Roads and Traffic Authority
- National Heart Foundation of Australia
- Australasian Society of Clinical Immunology & Allergy (ASCIA)
- Asthma Foundation of Queensland
- WorkCover QLD

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The information in this book contains, at the time of printing, the most current resuscitation guidelines. This book is designed to be an information resource and is not a substitute for attending a first aid course conducted by an approved provider. The author of this book accepts no responsibility for any injury or damage that may occur as a result of using this book in first aid management.

## Introduction

Congratulations on taking positive steps towards learning first aid which is an essential life skill we should all learn in order to help others and possibly save a life.

The **ABC First Aid Guide** is written by a medical practitioner with experience in emergency medicine, hospital medicine, general practice and natural therapies.

The book contains clear, simple first aid advice which will assist you in handling most emergency situations.

Keep this book with your first aid kit at home, in your car or when travelling overseas.

## How to use this book:


The **ABC First Aid Guide** is divided into four main colour coded sections:

- **Essential First Aid** • **Trauma**
- **Medical Emergencies** • **General First Aid**

Each subsection shows you step-by-step how to recognise and deal with an emergency situation.

Emergencies are recognised by **SIGNS & SYMPTOMS** which are contained in a **red box**.

Displayed in a **green box** is the **FIRST AID** management of an emergency situation.

 means dial your country's emergency number.

A fold out **World Map** of international emergency numbers at the back of the book identifies emergency numbers across the world.

Also at the back, there is a **First Aid Report Form** which can be torn out and used in a first aid incident, and an **Emergency Numbers** page for writing local, national and international emergency numbers.

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### First Aid Report Form

**World Map** 

**Emergency Numbers** 

**Unconsciousness** is a state of unresponsiveness, where the casualty is unaware of their surroundings and no purposeful response can be obtained.

**NO RESPONSE** → **NO Breathing or Abnormal Breathing** → Follow **Basic Life Support Chart** →

→ **Breathing Normally** → Recovery Position, Call ☎, monitor

Causes of an **unresponsive (unconscious), breathing state:**

- A - Alcohol
- E - Epilepsy (Pg 25 )
- I - Insulin (Diabetes Pg 26 )
- O - Overdose (Poisons Pg 32)
- U - Uraemia (renal failure)
- T - Trauma (head/ spinal (Pg 20, 21)
- I - Infections (meningitis)
- P - Pretending
- S - Stroke (Pg 27 )

Combinations of different causes may be present in an unconscious casualty eg head injury and diabetes.

NB. The sense of **hearing** is usually the last sense to go, so be careful what you say near an unconscious casualty. All unconscious casualties must be handled gently and every effort made to avoid any twisting or forward movement of the head and spine.

(An unconscious, breathing woman in advanced pregnancy should be placed on her left side).

The recovery position:

- Maintains a clear airway - allows the tongue to fall forward.
- Facilitates drainage and lessens the risk of inhaling foreign material.
- Permits good observation and access to the airway.
- Avoids pressure on the chest which facilitates breathing.
- Provides a stable position and minimises injury to casualty.



**Step 1**

- Raise the casualty's furthest arm above the head.
- Place the casualty's nearest arm across the body.
- Bend-up the casualty's nearest leg.
- With one hand on the shoulder and the other on the knee, roll casualty away from you.



**Step 2**

- Stabilise the casualty by flexing the bent knee to 90° when resting on the ground.
- Tuck the casualty's hand under their armpit.
- Ensure the casualty's head is resting on their outstretched arm.

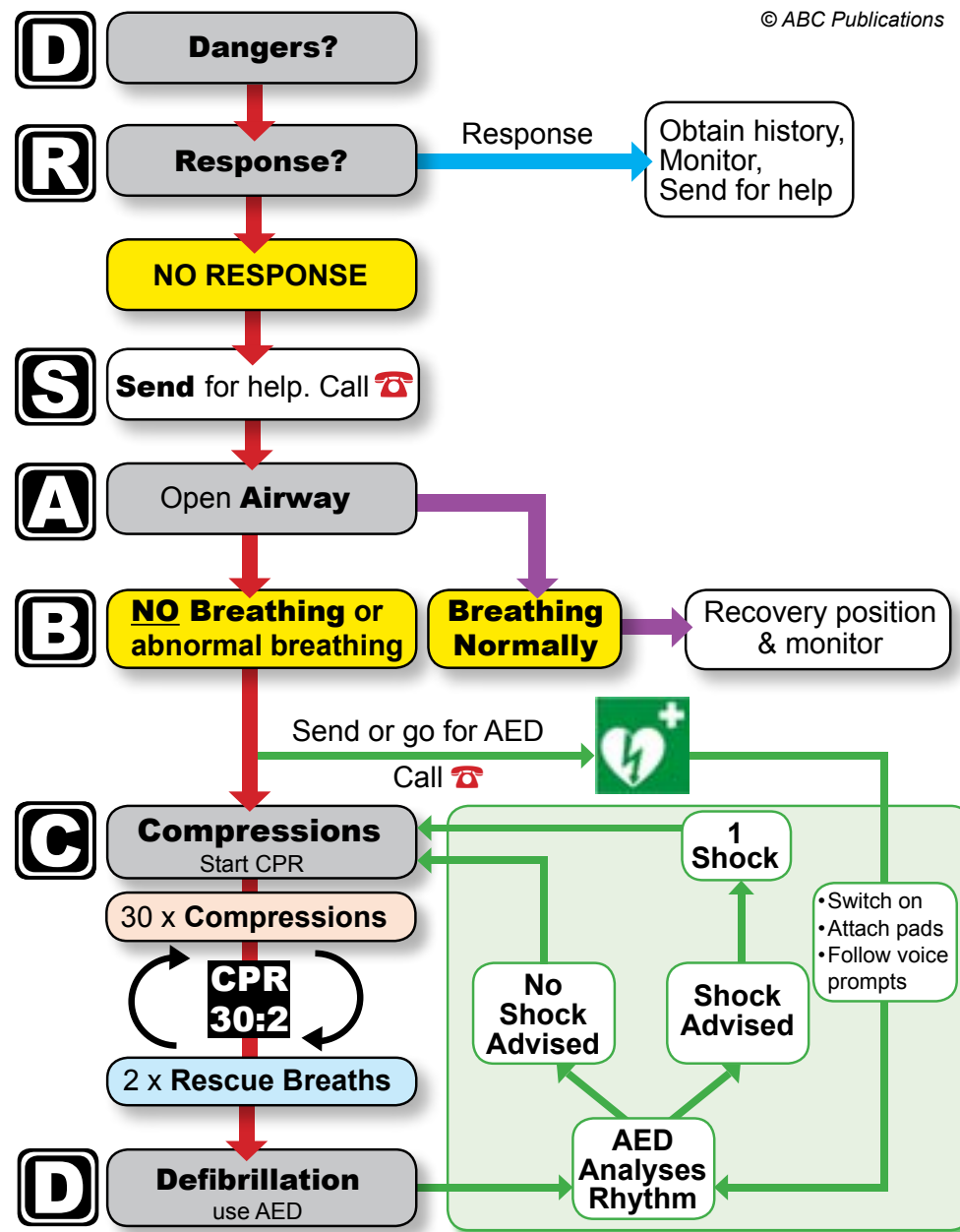


**Step 3**

- Carefully tilt the head slightly backwards and downwards. This facilitates drainage of saliva and/or stomach contents and reduces the risk of inhalation which may cause pneumonia.

# Basic Life Support & AED

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In an EMERGENCY CALL ☎ or



# CPR

**Dangers**

- Survey Scene
- Remove or Minimise Hazards



Protect yourself - use antiseptics and barrier protection: gloves, mask, goggles.

## HAZARDS!

- **Biohazards** – blood, bodily fluids
- **Chemicals** – spills, fumes, fuel
- **Electricity** – power-lines
- **On coming traffic**
- **Fire, explosion**
- **Unstable structures**
- **Slippery surfaces**
- **Broken glass**
- **Sharp metal edges**
- **Needle stick**
- **Aggressive behaviour**

**Response** • Talk and touch



**SPEAK LOUDLY – Don't shout**  
 "Hello, can you hear me"? Are you all right?  
 "Open your eyes"  
 "Squeeze my hands"

**SQUEEZE SHOULDERS firmly – Don't shake**  
**NB.** When approaching a collapsed casualty with caution, ascertain a response from a standing position by tapping casualty's foot with your foot before kneeling down.

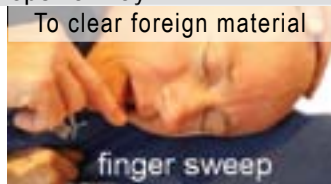
**Send for help. Call** ☎

**Airway**

- Check - for foreign material which could be obstructing the airway.
- Open - use chin lift and backward head tilt to open airway.



• Use **pistol grip** to achieve chin lift. Watch that your knuckle doesn't compress neck and obstruct airway and breathing.  
 • If foreign material is present, roll casualty into recovery position and clear using postural drainage and finger sweep method.



**Spinal injury and infants (<1yr):** Keep head in a neutral position (i.e. minimise backward head tilt)

- The airway takes precedence over any other injury including a possible spinal injury.
- Check airway and breathing in recovery position if incident involves drowning (Pg 7) or vomiting.

**Breathing**

- Look - for rise and fall of lower chest/ upper abdomen
- Listen - for breath sounds
- Feel - for movement of chest and escape of air from mouth



**Abnormal or NO Breathing?**

- If casualty is unresponsive and not breathing normally after the airway has been cleared and opened, the rescuer must immediately commence chest compressions then rescue breathing (CPR).
- If unwilling or unable to perform rescue breathing, continue with compression only CPR.

**NB.** In the first few minutes of a casualty's cardiac arrest, sounds of gurgling, sighing or coughing may be present, but this is ineffective breathing and CPR should be commenced.

# CPR

**Compressions** 30 Chest Compressions : 2 Rescue Breaths = CPR

**30 Compressions**

- Depth = 1/3 of chest wall (~ 5 cms)
- Rate = 100 per min (almost 2 compressions per sec)



- Place heel of one hand in centre of casualty's chest (which is the lower half of the sternum)
- Place other hand on top, arms straight and press down on sternum at least 5 cm in adults
- Allow complete recoil of chest after each compression
- Keep compressions rhythmical at a rate of 100 per min
- Use 1 or 2 hands in children (Infants 2 fingers)



**2 Rescue Breaths** • 2 breaths over 2 secs



- **Take a breath.**
- **Close casualty's nostrils** (pinch with fingers).
- **Mouth to mouth** (good seal).
- **Blow** to inflate lungs.
- Turn head after each RB.
- **Listen** and **feel** for air exhaled from mouth.
- Avoid inhaling re-expired air.

- Inflate until chest starts to rise.
- Over-inflation forces air into the stomach causing regurgitation.
- **Infants** – perform mouth to mouth/nose RB and inflate with puff of air from cheeks.
- Use resuscitation mask or barrier protection if possible
- If unwilling or unable to give RB, do chest compressions only.

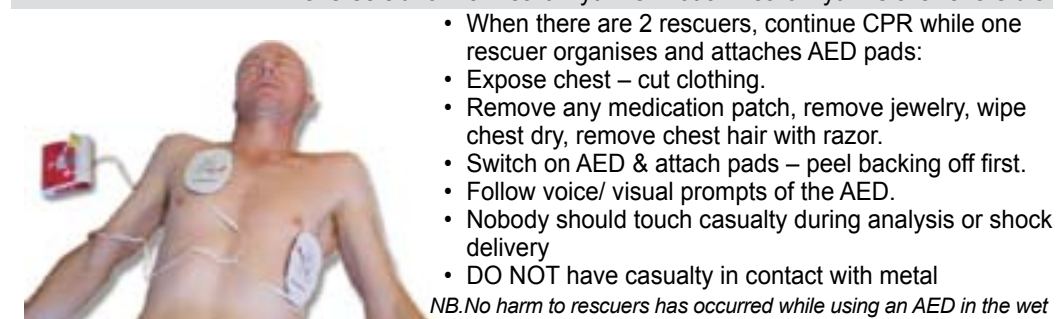
**CPR 30:2**

- Cardio Pulmonary Resuscitation
- Rate = 5 cycles every 2 mins
- Combines 30 Compressions with 2 Rescue Breaths (30:2) = 1 cycle

**Same ratio for infant, child, adult**

- Change rescuers every 2 mins to reduce fatigue.
- Do compression only CPR, if unwilling or unable to give rescue breaths (RB).
- Continue CPR until responsiveness or normal breathing returns.
- **Stop CPR when:**
  - Casualty responds or begins breathing normally
  - Exhaustion – can't continue.
  - Health professional arrives and takes over.
  - Health professional directs that CPR be ceased

**Defibrillation** An AED (Automated External Defibrillator) delivers electric shock to reverse abnormal heart rhythms. Not all heart rhythms are reversible



*NB. No harm to rescuers has occurred while using an AED in the wet*

**Chain of survival:** is the key to improving the survival rate from cardiac arrest. Time is the essence. The **4 steps** required are: **1) Call** ☎ Early **2) Begin** CPR immediately **3) Early Defibrillation** **4) Advanced** cardiac life support by paramedics

**Choking** Inhalation of a foreign body can cause partial or complete airway obstruction.

### Partial Airway Obstruction (Effective cough):

#### SIGNS & SYMPTOMS

- Coughing
- Wheezing
- Difficulty breathing
- Noisy breathing
- Cyanosis (blue skin colour)



#### FIRST AID

- Encourage casualty to keep coughing
- Reassurance
- DO NOT deliver back-blows if cough is effective
- Call ☎ If blockage doesn't clear

### Complete Airway Obstruction (Ineffective cough):



#### SIGNS & SYMPTOMS

- Unable to breathe, speak or cough
- Agitated/distressed
- Grips the throat
- Cyanosis (blue)
- Rapid loss of consciousness

#### FIRST AID

- Deliver 5 back-blows.
- Check and clear mouth after each blow.
- Deliver 5 chest thrusts.
- Check and clear mouth after each blow.
- Repeat back blows and chest thrusts if obstruction not relieved.
- Call ☎.
- If unconscious, commence CPR (Pg 4,5). DO NOT apply abdominal pressure – may cause internal injury.

**Back blows** are delivered standing or lying using the heel of the hand between the shoulder blades.

If after 5 back blows the airway is still obstructed, use chest thrusts.



**Chest thrusts** are delivered standing or lying using one or two hands- a wall or firm surface is required. The elbow(s) are slightly bent and chest thrusts are sharper and slower than chest compressions (CPR). Check airway after each chest thrust.



#### Back Blows

Back blows are delivered with the **infant** lying face down across the lap. Check airway after each back blow.



#### Chest Thrusts



When giving Rescue Breaths in an attempt to blow past the obstruction, there will be resistance. If the obstruction is blown further down the airways, the obstruction can be removed later by bronchoscope.

## Drowning

Drowning or near drowning is the process of experiencing respiratory impairment from immersion in liquid. Interruption of the oxygen supply to the brain is the most important consequence of drowning so early rescue and resuscitation are the major factors in survival.

#### SIGNS & SYMPTOMS

- Coughing •Chest pain •Frothy sputum
- Clenched teeth •Shortness of breath
- Blue lips and tongue •Unconscious
- Irregular or no breathing

### A Drowning Victim



The risk of regurgitation and inhalation is high following immersion. This is due to distension of the stomach from swallowing large volumes of water. The airway and breathing is assessed in the recovery position to minimise risk of inhalation.



### Rescuing a Drowning Victim



- **If conscious:** throw a **buoyant** aid (life jacket, surf board) or drag from water using an umbrella, rope, towel, stick.
- **If unconscious:** Turn casualty **face up** and remove from water.
- Consider possibility of **spinal injury** – remove from water gently, maintaining spinal alignment as much as possible.

- **DO NOT attempt to save a drowning casualty beyond your swimming ability.**
- **Remove** casualty from water as soon as possible.
- Only begin **Rescue Breathing in water** if trained to do so (requires a floatation aid) and immediate exit is impossible.
- **Cardiac compressions in water** are both difficult and hazardous and should not be attempted.

#### FIRST AID

##### On land or boat:

- Call ☎
- Roll casualty into **recovery position** for assessment of airway and breathing.
- Commence **CPR** if required (Pg 4,5)
- Roll into recovery position if **vomiting** or **regurgitation** occurs.
- DO NOT attempt to empty **distended stomach** by external compression.
- Treat for **Hypothermia** (Pg 29) - often associated with immersion.
- Give **oxygen** if available.
- All immersion casualties must be assessed in hospital as complications often follow.

# Soft Tissue Injury & Fracture

- Sprain:** Over-extension of a joint with stretching and tearing of ligaments.
- Strain:** Over-stretching of muscles and tendons with tearing of muscle tissue or tendon fibres.
- Dislocation:** Displacement of bone ends in a joint.
- Fracture(#):** Broken bone, classified as:
  - Closed:** Fractured bone doesn't penetrate skin.
  - Open:** Fracture is exposed through open wound or penetrates skin.
  - Complicated:** Vital organ, major nerve or blood vessel is damaged by a broken bone.

} Soft Tissue Injury

The **Signs & Symptoms** and **First Aid** for a fracture and soft tissue injury are very similar.

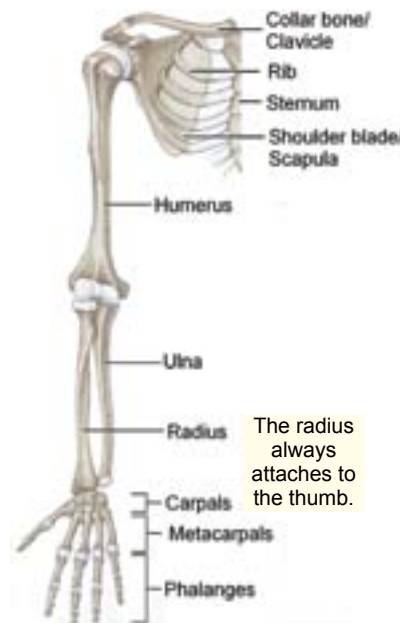
- SIGNS & SYMPTOMS**
- Pain
  - Tenderness
  - Snap or pop at time of injury
  - Restricted movement
  - Discolouration
  - Swelling
  - Deformity\*
- \* Indicative of fracture or dislocation

- FIRST AID**
- Control external bleeding or cover wound (Pg 12)
  - Remove rings from fingers – swelling likely
  - Support or Immobilise +/- **R.I.C.E**
  - Medical Assistance: X-rays are the only sure way of diagnosing the type of injury.
  - Call ☎ if: **Deformity** as blood vessels and nerves can be damaged.
  - **Open Fracture:** Risk of blood loss and infection.
  - **Breathing difficulty**
  - Monitor Vital Signs (Pg 37,40)

- Fracture Management:**  
The main aim of fracture treatment is to *support* or *immobilise* an injured part which:
- minimises pain
  - prevents further damage
  - minimises bleeding and
  - prevents a closed fracture becoming an open fracture.
- Support:** • Leave injured part as found and pack around to give support.
- Immobilise:**
- Use **Splint, Sling** or **bandage** to prevent movement.
  - Stabilise joint above and below fracture site.
  - Apply triangular or broad bandages above and below fracture site.
  - Check circulation every 15mins (Pg 11).
  - **DO NOT** elevate a suspected fracture until it has been immobilised.

- Soft Tissue Management:**
- R.I.C.E:** Method used to treat soft tissue injuries (sprains/ strains) and fractures.
- Rest:** Rest casualty and injured part; this prevents further damage and reduces bleeding.
- Ice:** Reduces pain, fluid and swelling by constricting blood vessels. Apply wrapped ice pack for 10 - 20mins – do not place ice directly on skin. Ice pack or frozen peas can be placed over a bandage. Continue to cool injury three times/day for 2-3 days after the injury.
- Compression:** Apply a firm supporting bandage to injured part. This restricts movement of injured part and reduces bleeding and swelling.
- Elevation:** Raise injured area above the level of the heart if possible. This slows the flow of blood and reduces swelling.

- Degree of pain is not a good indicator of injury type since pain tolerance varies in individuals.
- Never manipulate a dislocation - there may be an associated fracture.
- When in doubt, always treat an injury as a fracture.
- Check circulation (Pg11) after immobilisation ie after bandaging, splinting, sling.
- May need to slowly adjust position of limb if no circulation is present.



**Finger Splints:** Immobilisation reduces pain. After splinting, apply an elevation sling to minimise swelling.



**Arm Sling:** Use a triangular bandage or improvise.



Elevation Sling



Arm Sling



Collar & Cuff Sling

# Upper Limb Injury

**Improvise:**  
By using a belt or buttons on shirt



**Rigid Splint:** Rolled up newspaper, tied either end with triangular bandages.

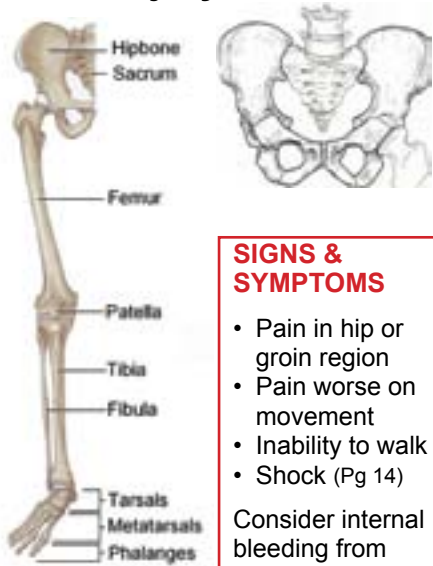
Fractured humerus: Notice deformity



Pain in:	Could be:	Management:
Shoulder	•Fractured clavicle •Dislocated shoulder •Fractured upper humerus •Sprain/ strain	<ul style="list-style-type: none"> <li>•Allow casualty to adopt position of comfort.</li> <li>•Apply sling which best suits casualty.</li> <li>•Keep hand higher than elbow to reduce swelling</li> <li>•If unsure whether injury is a fracture or soft tissue injury, treat as for fracture (Pg 8)</li> </ul>
Upper Arm	•Fractured mid-humerus •Sprain/ strain	
Fore Arm/ Wrist	•Fractured radius/ ulna •Sprain/ strain •Fractured carpal bone	
Hand	•Fractured/ dislocated metacarpal •Fractured/ dislocated phalange •Sprain/ strain	

# Lower Limb Injury

## Pelvic Injury:



### SIGNS & SYMPTOMS

- Pain in hip or groin region
- Pain worse on movement
- Inability to walk
- Shock (Pg 14)

Consider internal bleeding from bladder, uterus, bowel damage.

### FIRST AID

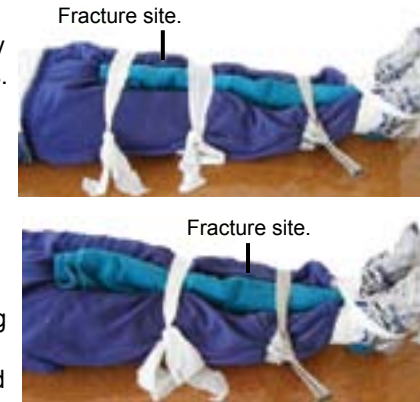
- Call ☎
- Reassure casualty
- Control any external bleeding.
- Lie casualty flat with knees slightly bent and supported.
- Place padding between legs and on either side of hips (eg blanket, towel, pillow).
- 'Figure-of-eight' bandage around ankles and feet.
- Apply broad bandage above knees.
- Don't attempt to move casualty.
- Discourage attempts to urinate.
- Maintain body temperature.
- Monitor vital signs (Pg 37,40)



# Lower Limb Injury

## Immobilising Lower limb:

- A **body splint** is an effective way to immobilise lower limb fractures.
- The key to immobilising leg fractures is a figure of 8 bandage around the feet.
- Place padding in natural hollows between legs.
- Stabilise joints above and below fracture site.
- Position all bandages before tying off.
- Apply broad bandages above and below injured area.
- Tie bandages off on uninjured side of body.
- If using a **rigid splint** (eg stick) ensure splint doesn't extend further than length of legs.
- Ensure splint stabilises joints above and below injury.
- Pad over splint to make more comfortable.
- **Check circulation**



Use triangular bandages, broad bandages, belts, clothing or sheets to tie legs together. Tie-off on uninjured leg, above and below fracture site.

### Splints can be classified as:

- **Body Splint:** Uses uninjured, adjoining body part to immobilise an injury. Lower limbs, fingers and toes are commonly strapped together as body splints.
- **Soft Splint:** Folded blankets, towels, pillows
- **Rigid Splint:** Boards, sticks, metal strips, folded magazines and newspapers

### Checking Circulation:

- Check skin colour below injury - if pale or discoloured, there may be impaired circulation.
- Assess skin temperature by gently placing hand below level of injury. Compare to other side. If colder, there may be impaired circulation.
- Squeeze fingernail until nail turns white. Colour should return within a few seconds.
- Compare pulse below injury with other side - If weaker or absent, circulation may be impaired.

### SIGNS AND SYMPTOMS that a bandage is too tight:

- Pain • Numbness • Cold to touch • Tingling • Pale or discoloured • Pulse weak/absent below injury



Left leg appears shorter and is rotated outwards. Notice swelling over hip due to internal bleeding. This is the typical position of the leg with a fractured hip (fractured neck of femur) and is common in the elderly after a minor fall.

Hip Injury



Thigh Injury

A 1.5 litre blood loss can result from a closed fracture of the femur. In this case a 3 litre blood loss could result in shock (Pg 14) and death.

This type of injury is common in road traffic accidents.



Ankle Injury

### R.I.C.E for a sprained ankle:

- Rest:** Casualty doesn't move ankle
- Ice:** Cool injured area
- Compression:** Use a crepe bandage
- Elevation:** Place foot higher than hip



Knee Injury

### R.I.C.E

- Support knee in position of comfort. Do not try to straighten knee if painful.

Pain in:	Could be:	Management:
Hip/groin	•Fractured Pelvis •Fractured neck of femur •Dislocated head of femur •Sprain/strain	<ul style="list-style-type: none"> <li>• Allow casualty to adopt position of comfort.</li> <li>• If unsure whether injury is a fracture or soft tissue injury, treat as for fracture (Pg 8).</li> <li>• Elevate a suspected fracture after it has been immobilised.</li> <li>• Minimise movement to avoid further injury.</li> <li>• Check circulation after immobilisation (above).</li> </ul>
Thigh	•Fractured femur •Strain: front of thigh (quadriceps) •Strain: back (hamstrings)	
Knee	•Fractured patella •Dislocated patella •Cartilage tear •Sprain	
Lower Leg/ Ankle	•Fractured tibia •Fractured fibula •Dislocation •Sprain/ strain	
Foot	•Fractured tarsal/metatarsal/phalange •Dislocation •Sprain/ strain	

## Bleeding

**Bleeding** (haemorrhage) can be external and obvious or internal (within the body) and often not seen.

Bleeding is classified according to the type of blood vessel damaged:

**Artery** - bright red, spurting; **Vein** - dark red, flowing; **Capillary** - bright red, oozing

**Types of wounds** associated with bleeding are: Abrasions, incisions, laceration, puncture, embedded object, tear, amputation.

### Major External Bleeding:

The aim is to reduce blood loss from the casualty.



#### Direct Pressure and Elevation

#### FIRST AID

- Check for Dangers to self, casualty & bystanders.
- Use disposable gloves if available.

#### • Direct Pressure Method:

- Quickly check for embedded objects (Pg13)
- Apply firm direct pressure until bleeding stops.
- Maintain pressure over the wound using hands or pad (sterile dressing, tea towel or handkerchief).
- Bandage firmly to hold pressure pad in place.
- **If bleeding continues** - apply another pad and a tighter bandage.

- Elevate, immobilise and rest injury.
- Call ☎
- Reassure casualty.
- Assist casualty into comfortable position.
- Monitor vital signs (Pg 37, 40)
- Give oxygen if available.
- DO NOT give casualty food, alcohol, medication.
- **If major bleeding continues** - remove all pads to locate a bleeding point, then apply a more direct pressure over bleeding point.
- **If above methods fail** - use a **tourniquet**.
- Treat for shock (pg 14) if required.

Direct, sustained pressure is the fastest, easiest, most effective way to stop bleeding.

#### TOURNIQUET: Used to control life-threatening bleeding.

- Use as a **LAST RESORT**.
- Use a wide bandage (>5cm wide).
- Apply **high** above wound.
- Ensure tourniquet is clearly visible.
- Tighten until bleeding stops.
- Note the time of application; write time of application on casualty.
- Continue to maintain direct pressure over wound.
- DO NOT apply tourniquet over a joint or wound.
- DO NOT remove tourniquet until casualty receives specialist care.



Tourniquet with time of application noted

## Bleeding

**Embedded Object:** eg knife, glass, stick or metal.

#### FIRST AID

- DO NOT remove the object - it could be plugging the wound.
- Build up padding around the object.
- Apply sustained pressure over the pad (indirect pressure).
- Bandage firmly over the pad.
- DO NOT apply pressure over the object.
- DO NOT shorten object unless its size is unmanageable.
- Elevate, immobilise, restrict movement of the limb.
- Advise casualty to remain at rest.
- Call ☎



**Internal Bleeding:** Signs, symptoms and management as for Shock (Pg 14)

- Suspect internal bleeding if a **large blunt force** is involved - road traffic accident, fall from a height; or a history of **stomach ulcers**, early pregnancy (**ectopic pregnancy**) or **penetrating injury**.
- Internal bleeding may be concealed or revealed.
- If a casualty is coughing up frothy blood, allow casualty to adopt position of comfort – normally half-sitting.
- First aiders can't control internal bleeding but early recognition and calling ☎ can save lives.

#### Concealed:

Spleen, liver, pancreas, brain (no bleeding visible).

#### Revealed:

Lungs – Cough up frothy pink sputum.  
Stomach – Vomit brown coffee grounds or red blood.  
Kidneys/ Bladder – Blood stained urine.  
Bowels – Rectal bleeding: bright red or black and "tarry".  
Uterus - Vaginal bleeding.

## Nose bleed

#### FIRST AID

- Pinch soft part of nose just below the bone.
- Have casualty seated and leaning forward.
- Ask casualty to breathe through their mouth.
- Maintain pressure and posture for at least 10mins (longer may be required after exercise, hot weather or if casualty has high blood pressure or takes aspirin or warfarin tablets - maintain pressure for at least 20 minutes).
- If bleeding continues >20mins - seek medical assistance.
- Apply cold compress to forehead and neck.
- Advise casualty not to blow or pick their nose for a few hours.



**Amputation** Manage amputated limb as for major external bleeding (Pg 12). Amputation of a limb often requires a **tourniquet** (Pg12) to control life-threatening bleeding.

- DO NOT wash or soak amputated part in water or any other liquid.
- Wrap the part in gauze or a clean handkerchief and place in watertight plastic bag.
- Place sealed bag or container in cold water which has ice added to it (The part should not be in direct contact with ice).
- Send to hospital with the casualty.

**Shock** Shock is a term used to describe an ineffective blood circulation.

#### CAUSES

**Loss of blood volume:** Bleeding or fluid loss

**Loss of blood pressure:** Heart/ pump failure or abnormal blood vessel dilatation.

- Internal or external bleeding
  - Major or multiple fractures
  - Severe burns or scalds
  - Severe diarrhea and vomiting
  - Heat stroke
  - Heart attack
  - Severe infection
  - Allergic reactions
  - Brain/ spinal cord injury
- } bleeding
- } fluid loss
- pump failure
- } abnormal dilatation of blood vessels



The total blood volume in the body is about **6 litres**. Blood loss of **>1 litre** (20%) may result in shock. Rapid blood loss leads to more severe shock.

#### SIGNS & SYMPTOMS

- Pale, cool, clammy skin
  - Thirst
  - Feeling cold
  - Rapid, shallow breathing.
  - Nausea/ vomiting
  - Confusion
  - Reduced level of consciousness.
  - Rapid, weak pulse
  - Ridged, painful abdomen (from internal abdominal bleeding).
- NOTE: In early stages of blood loss, children may have a normal pulse rate, but pallor is the warning sign.

#### FIRST AID

- DRSABCD - Ensure your own safety
- Call ☎
- If conscious – lie casualty flat with legs elevated.
- Control external bleeding (Pg12); stabilise fractures; treat injuries (use disposable gloves if available).
- Reassure
- Give nothing by mouth (may cause vomiting and delay surgery).
- Keep casualty warm but don't overheat.
- Monitor vital signs (Pg 37, 40).
- If casualty becomes **unconscious**, vomits or has breathing difficulty, place in recovery position, legs elevated if possible.

**Crush Injury** A heavy, crushing force to part of the body usually causing extensive tissue damage from internal bleeding, fractures, ruptured organs, or an impaired blood supply.

#### FIRST AID

- DRSABCD - ensure your own safety.
  - Call ☎
  - If safe - remove crushing force as soon as possible.
  - Control external bleeding (Pg12).
  - DO NOT use a tourniquet (Pg12) to manage a crush injury.
  - Manage other injuries.
  - Comfort and reassure.
  - Monitor vital signs (Pg 37, 40)
- NB - the casualty's condition may deteriorate quickly due to extensive damage.

#### Crush Injury Syndrome:

- Is a complication of crush injury usually involving a thigh or pelvis (ie not a hand or foot).
- Toxins released from damaged tissue may cause complications but the risk of sudden death following removal of a crushing force is extremely small.

**Burns** Burns may result from: **heat** (flame, scald, direct contact), **cold, friction, chemical** (acid, alkali), **electrical** or **radiation** (sunburn, welders arc).

#### FIRST AID

- DRABCD
- Cool affected area with water for as long as necessary - usually 20mins.
- Remove rings, watches, jewelry from affected area.
- Cut off contaminated clothing – do not remove clothing contaminated with chemicals over the head or face.
- Elevate burnt limb if possible.
- Cover burnt area with a loose, non-stick dressing (sterile non-adherent dressing, plastic cling wrap, wet handkerchief, sheet, pillow case).
- DO NOT allow shivering to occur.
- Hydrogel products are an alternative if water is not available.

- DO NOT apply ice directly to burns.
- DO NOT break blisters.
- DO NOT apply lotions, ointments, creams or powders (except hydrogel).
- DO NOT peel off adherent clothing or other substances.
- DO NOT use “fluffy” dressings to cover burn (towels, tissues, cotton wool).

#### Seek medical help for:

- Chemical burns
- Electrical burns
- Inhalation burns
- Full thickness burn
- Infant, child or elderly.
- Burns to hands, face, feet, major joints, or genital area.
- Burn size > casualty's palm.
- Burns encircling limbs or chest.
- Burns associated with trauma.

**Extensive burns may result in shock from fluid loss (Pg14).**



**Superficial Burn**

(1st degree)  
Reddening (like sunburn)  
Painful



**Partial Thickness Burn**

(2nd degree)  
Red and Blistering  
Very Painful



**Full Thickness Burn**

(3rd degree)  
White or blackened  
Not painful

**Flame:** • STOP, DROP, COVER, ROLL the casualty to put out flames • Smother flames with a blanket, coat or rug and force casualty to lie on the ground • Move to safety • Call ☎

**Inhalation:** (See also Pg 32, Poisons) • Inhalation of flames or heated air can cause severe damage to the airways resulting in swelling and possible airway obstruction • DO NOT enter a burning or toxic atmosphere without appropriate protection • Remove to a safe, ventilated area ASAP • Look for evidence of inhalation injury around nose or face • Coughing or hoarseness may indicate exposure • Give oxygen if available • Call ☎

**Chemical:** • Acids and alkalis cause chemical burns • Brush powered chemicals from the skin before cooling with water • Do not neutralise either acid or alkali burns because this will increase heat generation and cause more tissue damage • Call ☎

**Bitumen:** • Bitumen holds heat therefore cool with water for 30mins • DO NOT remove from skin unless it's obstructing the airway • If the limb is completely encircled, split the bitumen lengthwise as it cools • Call ☎

**Electrical:** • Burns are usually more severe than they appear and often associated with other injuries (Pg 16) • Call ☎

# Electric Shock

Electric shock may cause: • **Respiratory Arrest** • **Cardiac Arrest** • **Burns**

### FIRST AID

- ENSURE SAFETY OF YOURSELF AND BYSTANDERS.
- Call ☎
- Disconnect Electricity supply where possible (switch off at fuse box or main circuit breaker and/ or unplug appliance).
- If not possible, use non-conducting material (wooden stick, dry clothing) to move casualty from electrical supply.
- Commence CPR if required (Pg 4,5).
- Apply first aid to burns (Pg 15).



**DO NOT** touch casualty's skin before electrical source is disconnected.  
**BEWARE: Water** on floor and **metal** materials can conduct electricity from casualty to you.



- When **POWERLINES** are in contact with a vehicle or a person, there should be no attempt at removal or resuscitation of the casualty until the situation is declared safe by electrical authorities.
- Remain at least **6m** from energized material (car body, pool of water, cable).
- You can do nothing for a casualty within the danger zone! Protect yourself and others.

**Multiple Casualties/ Prioritizing** You may be faced with the dilemma of two or more casualties needing your care. In making a decision who to treat first, remember the goal is for the **greatest good for the greatest number of people**. In all cases remember the principles of safety to yourself, bystanders and casualty.

**PRIORITIES:** 1= top priority, 5 = lowest priority

**1** ALWAYS manage an UNCONSCIOUS casualty first. Opening the airway and rolling the casualty into the recovery position may be all that's required initially.

- 2**
- Severe bleeding (> 1 litre)
  - Crush injury
  - Shock
  - Open chest wound
  - Open abdominal wound
  - Open fractures
  - Burns to 30% of body
  - Head injury, showing deterioration

- 3**
- Moderate bleeding (< 1 litre)
  - Spinal injury
  - Multiple fractures
  - Burns (10-30% of body)

**4** • "Walking Wounded"

- 5**
- Obvious death – decapitation, massive head or torso injuries

**Remember:** A casualty is always in a changing, non static condition. This is especially important in head and abdominal injuries in which deterioration can occur.

**Chest** Major chest injuries include **fractured rib, flail chest** (multiple rib fractures, producing a floating segment of ribs), and **sucking chest wound**. A fractured rib or penetrating injury may puncture the lung.

## Fractured Rib/ Flail Chest:

### FIRST AID

- Position casualty in position of comfort; half-sitting, leaning toward injured side, if other injuries permit.
- Encourage casualty to breathe with short breaths.
- Place padding over injured area.
- Bandage the upper arm on injured side to the body.
- If bandages increase discomfort, loosen or remove them.
- Apply a 'Collar & Cuff' sling to arm on injured side.
- Call ☎ for an ambulance
- Monitor for internal bleeding/ shock (Pg 13, 14)
- **If Unconscious:** Recovery position, injured side down.

### SIGNS & SYMPTOMS

- Holding chest
- Pain at site
- Pain when breathing
- Rapid, shallow breathing
- Bruising
- Tenderness
- Blue lips (flail chest or punctured lung)
- Flail Chest –section of chest wall moves in opposite direction during breathing.
- Onset of shock (Pg 14)



## Sucking Chest Wound:

### SIGNS & SYMPTOMS

- Pain
- Breathing difficulty
- Sucking sound over wound when casualty breathes.
- Bloodstained bubbles around wound when casualty breathes.
- Coughing up bloodstained frothy sputum.
- Onset of shock (Pg 14).

### FIRST AID

- Position casualty in position of comfort; half-sitting, leaning toward injured side.
- If the object is still in place, stabilise with padding around the wound.
- If the wound is open, cover with plastic or non-stick pad taped on 3 sides: This allows air to escape from pleural cavity and prevents lung collapse (pneumothorax).
- Call ☎ for an ambulance .
- Monitor for internal bleeding/ shock (Pg 13, 14).

Dressing taped on 3 sides



Collapsed lung due to sucking chest wound



## Abdomen

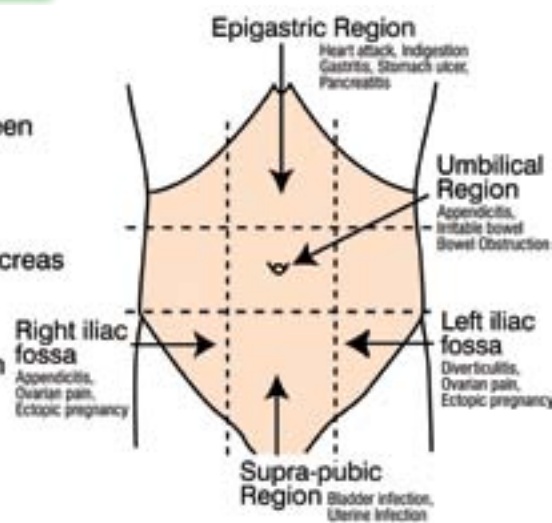
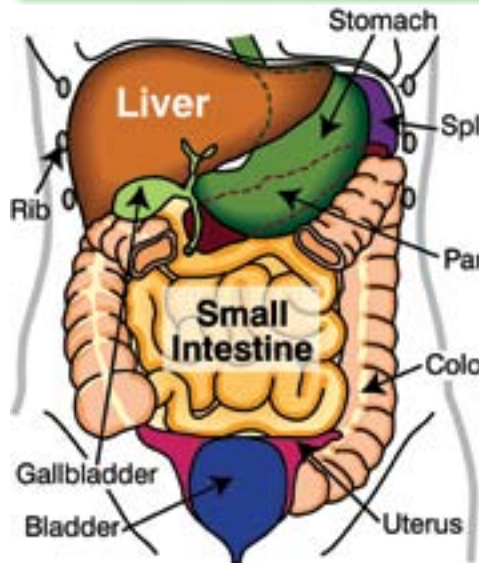
An injury to the abdomen can be an open or closed wound. Even with a closed wound the rupture of an organ can cause serious **internal bleeding** (Pg 13, 14), which results in **shock** (Pg 14). With an open injury, abdominal organs sometimes protrude through the wound.

### FIRST AID

- Call ☎
- Place casualty on their back with pillow **under head and shoulders** and support under **bent knees**.
- **If unconscious**, place in recovery position, legs elevated if possible.
- Cover exposed bowel with moist non-stick dressing, plastic cling wrap or aluminium foil.
- Secure with surgical tape or bandage (not tightly).
- Rest and reassure.
- Monitor vital signs (Pg 37, 40).
- Elevate legs if shock develops (Pg 14).
- DO NOT push bowel back into abdominal cavity.
- DO NOT apply direct pressure to the wound.
- DO NOT touch bowel with your fingers (may cause spasm).
- DO NOT give food or drink (this may delay surgery for wound repair).



Plastic cling wrap has been placed over an open abdominal wound and secured with surgical tape.



Causes of Non-Traumatic Abdominal Pain

**Eye** Types of eye injuries: • Burns • Foreign bodies • Penetrating injury • Direct blow

### Burns:

**Chemical** - acids, caustic soda, lime

**UV** - Welder's flash, snow blindness (the eyes are red and feel gritty hours later)

**Heat** - flames or radiant heat

**Contact Lenses:** • **DO NOT** remove if the surface of eye is badly damaged • Casualty should remove own lenses • Lenses may initially protect the eye but if a chemical or foreign body tracks under the lens, severe injury may occur.

### FIRST AID

- IRRIGATE with cool running water or sterile eye (saline) solution for 20 -30mins.
- Flush from the inside to the outside of eye.
- Irrigate under the eyelids.
- Lightly pad affected eye(s).
- Seek urgent medical assistance.
- **If chemical burn**, DO NOT waste time looking for neutralizing agent. (alkaline burn is worse than acid burn).

**Foreign body:** Grit, dust, metal particles, insects, eyelashes



### FIRST AID

- Gently irrigate eye to wash out object – use sterile eye (saline) solution or gentle water pressure from hose/ tap.
- If this fails, and the particle is on white of eye or eyelid, gently lift particle off using a moistened cotton bud or the corner of a clean handkerchief. (DO NOT attempt this if particle is on coloured part of eye – irrigate only)
- If still unsuccessful, cover the eye with a clean pad ensuring no pressure is placed over injured eye.
- Seek medical aid.
- DO NOT allow casualty to rub eye.

**Penetrating Injury:**



### FIRST AID

- Lay the casualty flat
- Reassure
- Call ☎
- Place padding around the object.
- Place a paper cup over the object to stabilize it.
- Tape or bandage to hold in place.
- Advise casualty to avoid moving unaffected eye, because this will cause movement of injured eye.
- Cover the unaffected eye, but remove if casualty becomes anxious.
- DO NOT remove embedded object.
- DO NOT apply pressure over the object.

**Direct Blow:** Any direct blow to the eye such as a fist or squash ball can cause fracture of the eye socket or retinal detachment.

### FIRST AID

- Rest and Reassure
- Place padding over eye
- Secure with tape or bandage
- Ask casualty to limit eye movement
- Seek urgent medical aid

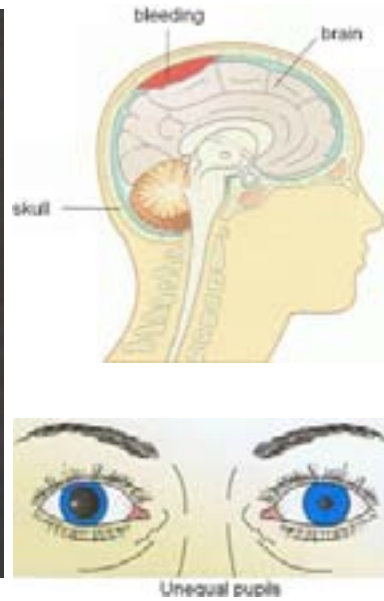
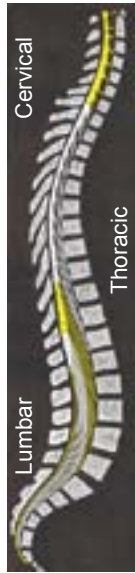
## Head Injury

Blood or fluid from the **ear** may indicate a ruptured eardrum or skull fracture:

- Position casualty injured side down to allow free drainage of fluid from the ear.
- DO NOT plug or bandage ear.

- AIRWAY management takes priority over any other injuries.
- ALL cases of unconsciousness, even if casualty was unconscious only briefly, must be assessed by a doctor.
- If casualty didn't lose consciousness, but later develops any of the following signs and symptoms (below), urgent medical advice must be sought.
- Monitor all casualties closely for the first 8 hrs after a head injury.
- All head injuries should be suspected as a spinal injury until proven otherwise.

Spinal Column



### SIGNS & SYMPTOMS

- Headache or giddiness
- Nausea or vomiting
- Drowsy or irritable
- Slurred speech
- Blurred vision
- Confused or disorientated.
- Loss of memory
- Swelling and bruising around eyes.
- Bleeding into corner of eyes.
- Bruising behind ears.
- Straw coloured fluid or bleeding from nose or ear.
- Loss of power in limbs.
- Loss of co-ordination.
- Seizure
- Unequal pupils
- Loses consciousness, even briefly.

**Concussion:** "Brain Shake" is a temporary loss or altered state of consciousness followed by complete recovery. Subsequent decline (see signs and symptoms above) suggests a more serious brain injury.

### FIRST AID

Check **DRSABCD** (Pg 3)

#### Conscious:

- Support casualty's head as best as possible.
- Reassurance, especially if confused.
- If blood or fluid coming from ear or nostril, loosely cover with a dressing (do not plug).
- Control bleeding and cover wounds (Pg 12).
- DO NOT give anything to eat or drink.
- DO NOT give aspirin for headache (may cause bleeding within skull).
- Prepare for possible vomit – locate bowl, towel.
- Seek urgent medical aid.

#### Unconscious:

- Recovery position with head & neck support.
- Call ☎
- Monitor Vital Signs every 5-10mins (Pg 37, 40).
- Control bleeding and cover wounds.
- Support/stabilize head and neck.
- Keep warm with a blanket.
- Prepare for possible vomit.

**Cerebral Compression:** Brain swelling or bleeding within the skull shows deteriorating signs and symptoms (above). This is a serious brain injury and could be life threatening.

## Spinal Injury

The key to managing a spinal cord injury: **Protect airway & Minimise spinal movement**

### Conscious:

#### SIGNS & SYMPTOMS

- Pain in neck or back.
- Pins and needles in any part of body.
- Numbness or weakness.
- Unable to move legs or arms.
- Uncontrolled penile erection.
- Onset of shock (Pg 14).

#### FIRST AID

- Prevent further injury by AVOIDING movement of patient - leave this to the experts.
- Advise casualty to remain still.
- Call ☎
- Support the head and neck.
- Reassure casualty.
- Maintain body temperature with a blanket.

### QUICK CHECK

- Can you wriggle your fingers and toes for me?
- Can you make a fist?
- Can you shrug your shoulders?
- Can you pull your toes up towards you and point them away?
- Do you have pins and needles anywhere?
- Can you feel me touch your hands/ feet?

*NB. If the casualty has neck or back pain - treat as a spinal injury. The pain may be due to an unstable vertebral fracture which may result in spinal cord damage if handled incorrectly.*

#### Suspect spinal injury with:

motor vehicle accidents, motor bike and cyclists, diving, falls from a height, minor falls in the elderly and sports injuries such as rugby and horse riding.

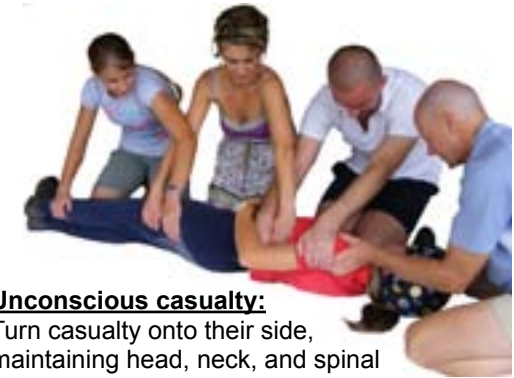
### Unconscious:

Any person found unconscious is potentially spinal injured until proven otherwise - turn casualty onto their side and maintain an open airway. REMEMBER, airway management takes priority over spinal injury.

**Helmet Removal:** Helmets could be preventing further spinal or head injuries. If a full-face (motorcycle) helmet is impeding proper airway management in an unconscious casualty and/ or you need to perform CPR, the helmet needs to be removed carefully. Otherwise leave helmet removal to the experts.

#### Conscious Casualty:

Support the head and neck in a conscious casualty with neck pain. Do not remove helmet and ask casualty to remain still.



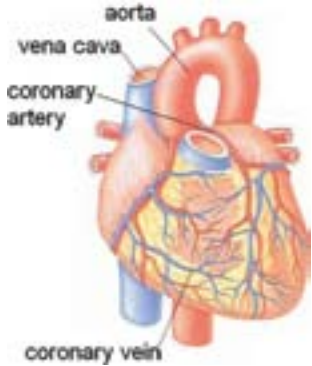
#### Unconscious casualty:

Turn casualty onto their side, maintaining head, neck, and spinal alignment. Maintain an open airway.

#### FIRST AID

- Recovery position with head & neck support
- Call ☎
- Monitor Vital Signs every 5-10mins (Pg 37, 40)
- Control bleeding and cover wounds
- Support/ stabilize head and neck
- Keep warm with a blanket
- Prepare for possible vomit

# Heart Conditions



**Angina** is a “cramping” of the heart muscle; relieved by rest, with no permanent muscle damage.  
**Heart attack** is caused by a blocked coronary artery, resulting in **muscle damage** which may lead to complications such as **cardiac arrest**.  
**Cardiac arrest** is a condition in which the **heart stops** beating and pumping effectively. The damage caused by a heart attack may cause abnormal rhythms (**Ventricular Fibrillation**) which result in cardiac arrest. Some abnormal rhythms can be reversed by an AED. Cardiac arrest is fatal without basic life support (Pg 3).

“Heart attack” and “Angina” are heart conditions which present with similar signs and symptoms.

**SIGNS & SYMPTOMS – vary greatly, and not all symptoms and signs are present!**

- **Central chest pain** – may be described as •Crushing •Tightness •Heaviness
- **Breathlessness** or difficulty “catching the breath”
- **Indigestion type pain** in the upper abdomen (referred pain from the heart)
- **Pain** radiating to the •Jaw •Neck •Shoulder •Left arm
- **Heaviness** or **weakness** in left arm
- **Dizzy**
- **Nauseous**
- **Pale and sweaty**
- **Irregular pulse**

**NB.** Casualties having a heart attack may present with breathlessness alone while others may have heaviness in the arm or believe they have indigestion.

**FIRST AID**

- **STOP** and **REST** – in position of comfort (usually sitting).
- Reassure and talk to casualty – **Are you on prescribed heart medication? Do you have angina? Can you take aspirin?**
- If casualty has no heart medication and has never been diagnosed with heart problems – treat as for **HEART ATTACK** • Call ‘☎’ • Give aspirin • Monitor
- Assist casualty to take **prescribed heart medication** (angine tabs or GTN spray).
- If after 5 mins symptoms are not relieved, **give another dose** of heart medication.

**ANGINA** should be relieved by rest and medication (tablets or spray).

- If after **3 doses of medication over 10mins**, the pain has not diminished, then the condition should be considered a **HEART ATTACK**

**Warning signs:**  
 Pain lasts > 10 mins  
 Pain gets suddenly worse

DON'T WAIT  
 ACT NOW

Call ☎

Give Aspirin 300mg (one chewable tablet)

Monitor vital signs  
 Give Oxygen if trained

Vital Signs (Pg 37, 40)

Prepare for CPR

**Aspirin should be given if directed.**

- DO NOT** give aspirin if:
- Casualty takes **Warfarin** (blood thinning medication)
  - **Allergic** to aspirin
  - History of **Asthma** or **Stomach ulcers**

**Asthma** Asthma is spasm and narrowing of the airways with inflammation and increased mucus production which causes breathing difficulties. Asthma attacks are triggered in sensitive airways by changes in the weather, exercise, emotional stress, pollen, dust-mite, food preservatives, smoke, fumes or cold and flu infection.

**SIGNS & SYMPTOMS**

**Mild:**

- Dry cough
- Wheeze – during exhalation
- Breathless but speaks in sentences

**Moderate:**

- Wheeze - during exhalation and inhalation
- Rapid breathing
- Breathless - speaks in phrases
- Anxious
- Pale and sweaty
- Rapid pulse

**Severe:**

- Can't speak (too breathless)
- Wheeze inaudible (no air movement)
- Cyanosis (blue lips)
- Exhaustion
- Distressed
- Altered state of consciousness
- Collapse -Respiratory arrest

**FIRST AID**

- Sit casualty comfortably upright.
- Calm and reassure.
- Follow casualty's Asthma Action Plan or give
- **Reliever Medication (4 puffs every 4 mins)**
- If no improvement, repeat
- Call ☎ if no improvement
- Give oxygen if available (8L / min)
- Keep giving **4 puffs every 4 mins** until ambulance arrives or casualty improves significantly.
- **Collapse:**
- Commence **DRSABCD** (Pg 3)

**Rescue breaths** require much greater force due to narrowed airways. Slowly inflate with a steady pressure until chest begins to rise. Allow time for chest to fall during expiration. You may only achieved a rate of 6 breaths/ min.



Give Reliever Medication via spacer. Use puffer on it's own if spacer not available.



**Reliever Medication:**

- **Blue - grey** coloured inhalers (puffers) eg Ventolin, Respolin, Atrovent, Salbutamol.
- Borrow an inhaler if necessary.
- No harm is likely to result from giving a Reliever to someone who does not have asthma.

- Shake **inhaler (Puffer)**.
- Place mouthpiece in casualty's mouth.
- Administer 1 puff as casualty inhales slowly and steadily.
- Casualty holds breath for 4 secs then takes 4 normal breaths.
- Continue until 4 puffs have been given.
- Wait 4mins and repeat.

- Shake inhaler and place mouthpiece into **spacer**.
- Place spacer mouthpiece into casualty's mouth.
- Administer 1 puff and ask casualty to breath in and out for 4 breaths.
- Continue until 4 puffs have been given.
- Wait 4mins and repeat.
- (Spacers can be improvised using a paper or styrofoam cup)

# Croup/ Epiglottitis

Croup and Epiglottitis are infections of the upper airways (larynx, pharynx and trachea) and occurs in young children. Both conditions start with similar signs and symptoms but epiglottitis progresses to a life-threatening state.

## SIGNS & SYMPTOMS

### CROUP:

- Cold-like symptoms
- Barking cough
- Noisy breathing
- Slight temperature
- Worse at night
- **Breathing difficulties**
- **Cyanosis (blue lips)**

Mild

### EPIGLOTTITIS:

- **Drools –can't swallow**
- **Quiet, doesn't cough**
- **Leans forward**
- **Won't talk**
- **High temperature**
- **Skin flushed**

Severe

## FIRST AID

- **DO NOT** examine child's throat – this may cause complete blockage.
- Calm and Reassure.
- Steamy shower room.
- Paracetamol
- Seek medical aid.

## Call ☎

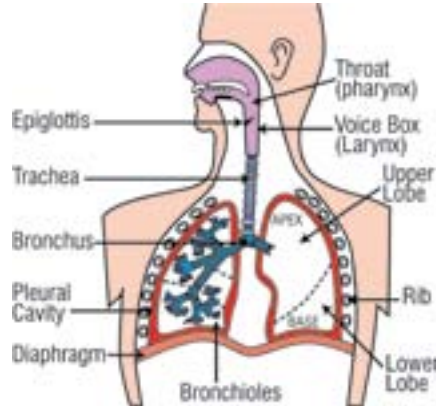
- Comfort, reassure
- Sit upright on your lap.
- Lots of TLC until ambulance arrives.

**Croup:** Viral infection affecting upper airways in infants and children < 4yrs. Slow onset, usually follows a cold or sore throat and lasts 3 – 4 days.

**Epiglottitis:** Bacterial infection of the epiglottis (flap above the vocal cords) causing **upper airway obstruction**. It occurs in the **4 - 7yr** age group and has a rapid onset over 1-2hrs. **This is an emergency and requires urgent ambulance transport to the hospital.**



Steam helps alleviate symptoms of 'Croup' but won't cure the problem. Doctors find it difficult to clinically differentiate between 'Croup' and 'Epiglottitis' - further tests are usually required.



# Faint

**Fainting** is a sudden, brief loss of consciousness caused by lack of blood flow to the brain with full recovery. It often occurs in hot conditions with long periods of standing; sudden postural changes (eg from sitting to standing); pregnancy (lower blood pressure); pain or emotional stress (eg sight of blood).

## SIGNS & SYMPTOMS

- Dizzy or light headed.
- Nausea
- Sweating
- Return of consciousness within a few seconds of lying flat.
- Pale and sweaty
- Mild confusion or embarrassment.

## FIRST AID

- Lie casualty flat
- Raise legs
- Pregnant woman turn onto left side.
- Recovery position if unconscious > few secs.
- **DO NOT** give food or drink.
- Check for other injuries.

# Seizure/ Epilepsy

A seizure is caused by abnormal electrical activity in the brain. Seizures vary from the briefest lapses of attention to prolonged convulsions (tonic-clonic or grand mal seizure). A seizure can occur in a person with • **Epilepsy** • **Head Injury** • **Stroke** • **Meningitis** • **Fever** (febrile convulsion) • **Hypoglycaemia** (diabetics) • **Poisoning** • **Alcohol** and • **Drug Withdrawal**.

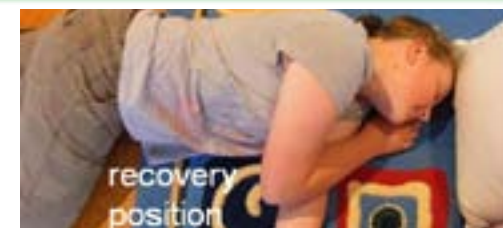
## SIGNS & SYMPTOMS

### Tonic-Clonic Seizure (Grand Mal)

- Aura (warning sign: eg abnormal taste, smell, sound or sight).
- Cry out or make moaning sound.
- Collapse and momentary rigidity (tonic phase – lasts few secs).
- Eyes roll upwards or stare.
- Jerking movements of body (clonic phase – lasts few mins).
- Blue discoloration of face/ lips
- Excessive salivation
- Tongue biting may result in blood stained saliva.
- Loss of bladder or bowel control.
- Breathing ceases – resumes once seizure finishes.
- Drowsiness and lethargy follows.

## FIRST AID

- Protect from harm – remove dangerous objects or protect head with cushion/ pillow.
- Note the time.
- AVOID restraining unless this is essential to avoid injury.
- DO NOT put anything into casualty's mouth.
- Roll into Recovery position as soon as possible.
- Monitor Vital Signs (Pg 37, 40).
- Reassure casualty and allow to sleep under supervision at end of seizure.
- **Call ☎ if:**
- Seizure lasts longer than 5mins.
- Another seizure quickly follows.
- Casualty is pregnant or has diabetes.
- Seizure occurred in water.
- This is casualty's first ever seizure.
- Casualty is injured or you're in doubt.
- **A person known to have epilepsy may not require ambulance care and may get upset when one is called.**



# Febrile Convulsion

(Normal body temperature = 37°C)

Febrile convulsions are associated with a high body temperature (>38°C). It is the rate of rise in temperature, not how high it gets, which causes the convulsion. They occur in 3% of all children **between the age of 6mths and 6yrs**.



## SIGNS & SYMPTOMS

- (Similar to epilepsy + fever)
- Fever
  - Skin hot, flushed
  - Eyes roll up
  - Body stiffens
  - Back and neck arches
  - Jerking of face, limbs
  - Frothing at mouth
  - Blue face and lips
  - Lethargy follows

- Protect from harm
- Place in recovery position after seizure stops
- Remove excess clothing

## FIRST AID

- Manage as for 'Seizure/ Epilepsy'.
- **PLUS:**
- Remove excess clothing
- Apply cold compress to forehead
- DO NOT allow shivering to occur
- DO NOT put in cold bath

## Diabetes

- Diabetes is an imbalance between glucose and insulin levels in the body.
- The imbalance may result in **Hypoglycaemia (Low blood sugar)** or **Hyperglycaemia (High blood sugar)**. Both conditions, if left untreated, result in altered states of consciousness which are medical emergencies.

**SIGNS & SYMPTOMS** - Both conditions share similar signs and symptoms:

- **Appear to be drunk (Dizzy, drowsy, confused, altered level of consciousness)**
- **Rapid breathing** • **Rapid pulse** • **Unconscious**

DIFFERENCES	HYPoglycaemia (LOW)	HYPERglycaemia (HIGH)
	<ul style="list-style-type: none"> <li>• Pale, cold sweaty skin</li> <li>• <b>Fast progression</b></li> <li>• Hunger</li> <li>• Trembling</li> <li>• Weakness</li> <li>• Seizure</li> </ul>	<ul style="list-style-type: none"> <li>• Warm, dry skin</li> <li>• <b>Slow progression</b></li> <li>• Acetone smell on breath (nail polish remover)</li> <li>• Thirst</li> <li>• Passes urine frequently</li> <li>• Nausea and vomiting</li> <li>• Abdominal Pain</li> </ul>

- The most common type of diabetic emergency is Hypoglycaemia.
- Hyperglycaemia is not common, as its slow onset allows diabetics to take corrective measures.

### FIRST AID

Both conditions (**Hypo and Hyperglycaemia**) are managed the same way by first aiders.

#### Conscious:

- Give sweet drink/ food: 5-7 jelly beans, 2-4 teaspoons of sugar or honey, glass of fruit juice (not diet or low sugar type).
- **Repeat** if casualty responds
- On recovery assist with **high carbohydrate** food: sandwich, few biscuits, pasta or rice meal.
- Call ☎ if no improvement within a few minutes of giving sugar (could be hyperglycaemia or another medical condition).

#### Unconscious:

- Place in recovery position
- Call ☎
- **DO NOT** administer insulin – could be fatal
- **GIVE NOTHING** by mouth



**Hypoglycaemia** can occur if a person with diabetes:

- Takes too much insulin
- Fails to eat adequately
- Over-exercises ie burns off sugar faster than normal
- Becomes ill – viral infection eg. diarrhoea and vomiting
- Experiences great emotional stress

The reason sugar is given to diabetics with an altered state of consciousness is that most will be **hypoglycaemic**. The symptoms of hypoglycaemia progress more rapidly and must be addressed quickly.

If the casualty is **hyperglycaemic**, the small amount of sugar given by a first aider will not significantly raise blood sugar levels and will do no harm.

Don't give diet or diabetic food/ drink which contains artificial sweetener – this doesn't correct low blood sugar.

## Stroke

The blood supply to part of the brain is disrupted, resulting in damage to brain tissue. This is caused by either a blood clot blocking an artery (cerebral thrombosis) or a ruptured artery inside the brain (cerebral haemorrhage). The signs and symptoms of a "stroke" vary, depending on which part of the brain is damaged.

### SIGNS & SYMPTOMS

- Confusion or dazed state
- Headache
- Unequal-sized pupils
- Blurred vision
- Drooping of one side of face
- Slurred speech
- Difficulty swallowing - drool
- Weakness or paralysis affecting one side of body.
- Loss of balance
- Incontinence of bladder/ bowel.
- Seizure
- Unconsciousness

**FAST** is a simple way of remembering the signs of a stroke:

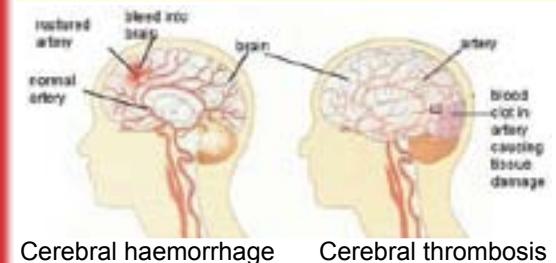
- **F**acial weakness – Can the casualty smile? Has their mouth or eye drooped?
- **A**rm weakness – Can casualty raise both arms?
- **S**peech – Can casualty speak clearly and understand what you say?
- **T**ime to act fast - Call ☎

### FIRST AID

- If casualty fails one of the **FAST** tests, act fast and **Call** ☎
- Adopt position of comfort
- Reassure
- Recovery position if unconscious
- Maintain body temperature
- Give oxygen if available
- Monitor Vital Signs (Pg 37, 40)

New drugs and medical procedures can limit or reduce damage caused by a stroke. Therefore, prompt action is essential for optimum recovery.

**TIA** (Transient Ischaemic Attack) is a mini-stroke with signs and symptoms lasting < 60mins. The risk of a stroke subsequent to a TIA is high, therefore early recognition and treatment is vital.



Cerebral haemorrhage      Cerebral thrombosis

## Hyperventilation

**Hyperventilation** syndrome is the term used to describe the signs and symptoms resulting from stress-related or deliberate **over-breathing**. The increased depth and rate of breathing upsets the balance of oxygen and carbon dioxide which results in diverse symptoms and signs.

### SIGNS & SYMPTOMS

- Rapid breathing
- Light-headedness
- Tingling in fingers and toes.
- Blurred vision
- Spasms in hands and fingers.
- Severe Anxiety
- Chest discomfort
- Rapid pulse

### FIRST AID

- Calm and Reassure.
- Encourage slow regular breathing - count breaths aloud.
- Seek medical aid – exclude other medical condition.
- **DO NOT** use a bag for rebreathing.

### NB. Other conditions

- which may present with rapid breathing:
- Asthma attack
  - Heart failure
  - Heart attack
  - Collapsed lung
  - Embolus (clot) in lung
  - Diabetes
  - Some poisons

# Heat Exposure

Normal body temp = 37°C

**Heat Exhaustion:** occurs when the body cannot lose heat fast enough. Profuse sweating occurs in an effort to lower body temperature but this leads to fluid loss and decreased blood volume (mild shock). If not treated quickly, it can lead to heat-stroke.

**Heat Stroke:** occurs when the body's normal cooling system fails and the body temperature rises to the point where internal organs (eg brain, heart, kidneys) are damaged: Blood vessels near the skin's surface dilate in an attempt to release heat, but the body is so seriously dehydrated that sweating stops (red, hot, dry skin). Consequently, the body temperature rises rapidly because the body can no longer cool itself. This is a life-threatening condition.

## Heat Exhaustion

(Mild – Moderate Hyperthermia)

- Body Temp 37°C – 40°C

Organs cook at 42°C

## Heat Stroke

(Severe hyperthermia)

- Body Temp > 40°C

## SIGNS & SYMPTOMS

- **NO Sweating**
- **Red, hot, dry skin**
- Nausea and vomiting
- Visual disturbances
- Irritability/ confusion
- Staggering/ unsteady
- Seizures
- Unconscious

(Sometimes profuse sweating occurs)

## FIRST AID

- Move casualty to cool, **shaded, ventilated area.**
- **Lie flat with legs elevated.**
- Loosen and remove **excess clothing.**
- **Cool by:** •fanning •spraying with water •applying wrapped ice packs to neck, groin and armpits •draping wet sheet over body and fanning.
- Give **cool water** to drink if fully conscious.
- Seek medical help or
- Call ☎ if in doubt

## SIGNS & SYMPTOMS

- Sweating
  - **Pale, cold, clammy skin**
  - Headache
  - Muscle cramps
  - Thirst
  - Fainting
  - Nausea
  - Rapid pulse
- (Onset of mild shock due to fluid loss, Pg 8)

Progresses to

Heat radiates from the body, especially the head into the surrounding air

During breathing, cold air is inhaled and warm air is exhaled

Heat is lost through evaporation (sweat) on the skin

Heat is lost through convection ie warm air around the body is replaced with cold air - worse on windy days

Heat is conducted from the warm body to a cold object

Body heat can be lost quickly in high, exposed areas



Heat Exhaustion and Heat Stroke are usually caused by over-exertion in hot, humid conditions with poor fluid intake.



Frost bite

# Cold Exposure

Exposure to cold conditions can lead to **hypothermia** (generalised cooling of the body) or **frostbite** (localised cold injury).

**Hypothermia:** is a condition where the body temperature drops **below 35°C**

- Hypothermia can be mistaken for drunkenness, stroke or drug abuse.
- Suspect hypothermia when conditions are **cold, wet and windy**, especially in the young and **elderly** or individuals under the influence of **alcohol** or **drugs**.
- As the core body temperature drops, so does the metabolic rate which means the cells require less oxygen. Hypothermia protects the brain from the effects of hypoxia so resuscitation should be continued until the casualty can be rewarmed in hospital.

## MILD Hypothermia 35° – 34°C

- Maximum shivering
- Pale, cool skin, blue lips
- Poor coordination
- Slurred speech
- Apathy and slow thinking
- Irritable or confused
- Memory loss

## MODERATE Hypothermia 33° – 30°C

- Shivering ceases
- Muscle rigidity increases
- Consciousness clouded
- Slow breathing } hard to detect
- Slow pulse }

## SEVERE Hypothermia <30°C

- Unconscious
- Cardiac arrhythmias
- Pupils fixed and dilated
- Appears dead
- Cardiac arrest

## FIRST AID

- **DO NOT re-warm too quickly-** can cause heart arrhythmias.
- **DO NOT use radiant heat** (eg fire or electric heater) - re-heats too quickly.
- **DO NOT rub or massage** extremities- dilates blood vessels in skin so body heat is lost.
- **DO NOT give alcohol** – dilates blood vessels in skin and impairs shivering.
- **DO NOT put casualty in hot bath** as monitoring and resuscitation if needed may be difficult.

- Call ☎
- Seek **shelter** – protect from wind chill.
- Handle **gently** to avoid heart arrhythmias.
- Keep **horizontal** to avoid changes in blood supply to brain.
- Replace wet clothing with dry.
- Wrap in **blankets/** sleeping bag or space blanket and cover head.
- Give **warm, sweet drinks** if conscious.
- IF NOT SHIVERING:
  - Apply **heat packs** to groins, armpits, trunk and side of neck.
  - **Body-to-body** contact can be used.
- IF UNCONSCIOUS:
  - **DRSABCD** (Pg 3) - Check breathing/ pulse for **30- 45secs** as hypothermia slows down everything.
  - If **no signs of life** – commence CPR while re-warming casualty.

**Frostbite:** is the freezing of body tissues and occurs in parts exposed to the cold.


**SIGNS & SYMPTOMS** • White, waxy skin • Skin feels hard • Pain or numbness

## FIRST AID

- Seek shelter • Treat hypothermia before frostbite • Gently remove clothing from affected area • Rewarm affected area with body heat - place in armpit (**rewarming can be very painful**) • **DO NOT** rub or massage affected area – tiny ice crystals in tissue may cause more damage • **DO NOT** use radiant heat • **DO NOT** break blisters
- **NEVER** thaw a part if there is any chance of it being re-frozen. Thawing and refreezing results in far more tissue damage than leaving tissue frozen for a few hours.

# Bites/ Stings

LAND ANIMALS	TYPE	FIRST AID
<b>FATAL</b>	Snakes	<b>Pressure Immobilisation Technique (PIT)</b>
	Funnel web Spiders	
	Red back spiders/ others	
	Bees	
	Wasps	
	Scorpion	
	Ants	



**Red Back Spider**

SEA CREATURES	TYPE	FIRST AID
<b>FATAL</b>	Sea Snakes	<b>Pressure Immobilisation Technique (PIT)</b>
<b>Tropics</b>	Blue-Ringed Octopus	
	Cone Shell	
	Box Jelly Fish	<b>VINEGAR</b> - Use salt water (not fresh water) if vinegar not available
	Irukandji Jelly Fish	
	Bluebottles	<b>HOT WATER</b> - Use cold compress if no pain relief with hot water
	Fish Stings : Stingray	
: Stonefish		
	: Bullrouts	



**SIGNS & SYMPTOMS:** similar for all 4 species with death from **Respiratory Arrest** within minutes to hours.

- Painless bite •Droopy eyelids •Blurred vision •Difficulty speaking and swallowing
- Breathing difficulties •Abdominal pain •Nausea and vomiting •Headache
- Tingling/numbness around mouth •Profuse sweating •Copious salivation •Collapse

**FIRST AID**

- DRSABCD
- Rest and reassurance.
- Call ☎
- Pressure Immobilisation Technique
- Resuscitation if needed, takes priority over PIT.
- DO NOT wash bite site (land animals).
- DO NOT suck venom from a bite.
- DO NOT kill animal – identification of species is made from venom on skin.



(Found in Tropical waters)

**Box Jellyfish**

**SIGNS & SYMPTOMS**

- Severe **immediate skin pain**
- **Frosted pattern** of skin marks
- Collapse
- **Cardiac Arrest** (Anti-venom available)

**Irukandji Jellyfish**

**SIGNS & SYMPTOMS**

- **Mild sting** followed 5-40mins later by:
- Severe **generalised pain**
- Nausea, vomiting, sweating
- Collapse /**Respiratory arrest** (No anti-venom)

**FIRST AID**

- DRSABCD •Remove casualty from water •Call ☎ •Reassure •AVOID rubbing sting area
- Flood sting with **VINEGAR** for 30 secs •If no vinegar–pick off remnants of tentacles and rinse with seawater (**NOT freshwater**) •If no signs of life, commence CPR

**Fish stings:** •Sharp barb •Painful wound •Bleeding •Place wound in hot water

**Red Back Spider:** •Intense local pain at bite site •Not life-threatening •Apply cold pack

**Bee/Wasp stings:** •Scrape sting off sideways •Apply cold pack •PIT if allergic to sting

**Ant/ Scorpion:** •Painful sting •Not life-threatening •Apply cold pack for pain relief

**Pressure Immobilisation Technique (PIT):** This method is used to treat a variety of bites and stings: •Snake •Funnel web spider •Blue-ringed octopus •Cone shell •Bee, wasp and ant bites in **allergic** individuals.



1. Apply a pressure bandage over the bite area as firmly as a bandage to a sprain.
  - DO NOT wash bite site
  - Mark "X" over bite site (If only one bandage available: start from fingers/ toes and wind as far up limb as possible covering the bite).
2. Apply a **second bandage** from fingers or toes extending upwards covering as much of limb as possible.
  - Bandage over the top of jeans/ shirts as undressing causes unnecessary movement
  - Mark "X" over bite site
3. **Splint** the bandaged limb, including joints either side of bite site.
  - Rest casualty and limb.
  - Check circulation (Pg 11)
  - DO NOT** elevate limb.
  - DO NOT** remove bandage and splint once it has been applied.
  - **DO NOT** suck venom from bite site.

**PIT (Pressure Immobilisation Technique) slows the lymph flow and inactivates certain venoms by trapping them in the tissues.**

## Poisons

A **poison** is any substance which causes harm to body tissues.

A **toxin** is a poison made by a living organism (eg animal, plant, micro-organism).

A **venom** is a toxin which is injected by a fang or sting (eg snake, spider, fish).



### 13 11 26 - Australian Poisons Information Centre

Free Call, Available 24hrs, Australia wide.

Poisons can be **ingested (swallowed)**, **absorbed**, **inhaled** or **injected**. The effect of a poison will vary depending on what the substance actually is and how much has been absorbed.

### Ingested:

Swallowed substances can be broadly categorised into '**corrosive**' or '**non-corrosive**'.

**Corrosive:** Burning substances eg dish washer detergents, caustics, toilet/ bathroom cleaners and petrols.

**Non-Corrosive:** Non-burning substances eg medications (tablets/ liquids) and plants.

#### SIGNS & SYMPTOMS of a corrosive

**substance:** •pain in the mouth/ abdomen •Burns to lips/ mouth •Nausea/ vomiting •Tight chest •Difficulty breathing •Sweating •Unconscious

#### FIRST AID

- Identify type and quantity of poison (from container/ bottle).
- Establish the time of poisoning.
- DO NOT induce vomiting.
- DO NOT give anything by mouth.

- If rescue breathing is required, wipe away any contamination from around the mouth.
- Use a resuscitation mask if available.
- DO NOT use **Syrup of Ipecac** to induce vomiting unless advised by Poisons Information Centre.

#### FOR ALL POISONING:

- DRSABCD
- What? When? How Much?
- Call Poisons Information Centre for advice or Call ☎
- Monitor Vital Signs (Pg 37, 40)
- Send any containers and/ or suicide notes with casualty to hospital.
- Send any vomit with casualty to hospital.

### Absorbed:

Chemical splash from eg pesticide, weed killer.

#### FIRST AID

- DO NOT become contaminated yourself – wear gloves, goggles, protective clothing.
- Ask casualty to remove all contaminated clothing.
- Flood affected area with running water • Seek medical advice if required

### Inhaled:

Toxic fumes from gas, burning solids or liquids. Inhaled poisons include: carbon monoxide (car exhausts); methane (mines, sewers); chlorine (pool chemicals, cleaning products); fumes from paints, glues, and industrial chemicals.

#### FIRST AID

- Move casualty to fresh air
- Loosen tight clothing
- Give oxygen if available
- Call ☎

#### SIGNS & SYMPTOMS

- Breathing problems • Headache
- Nausea • Dizziness • Confusion

### Injected:

As a result of a bite or sting (Pg 30, 31) or may be injected with a needle.

The most common type of drug overdose via injection are narcotics which cause respiratory depression (slow breathing), respiratory arrest (no breathing) or unconsciousness. The most common injection sites are: hands, feet, crease of elbow, between toes and fingers.

NB. Narcotic users may be carriers of Hepatitis B, C, and/ or HIV (AIDS).

**Allergy/ Anaphylaxis** Anaphylaxis is a life-threatening allergic reaction which can be triggered by **nuts** (especially peanuts), **insect stings** (bee, wasp, ant), **shellfish**, **latex** products and certain **drugs** (eg Penicillin).

The airways rapidly swell and constrict, interfering with **breathing**, and the blood vessels widen, leading to **shock** (Pg 14). Casualties need an immediate injection of adrenaline. People who know they are at risk may wear a **medical alert bracelet** and carry their own injectable adrenaline.

#### FIRST AID

- Assist casualty to position of comfort.
- Call ☎
- Apply **Pressure Immobilization Technique** if allergic to bite/ sting (Pg 31).
- Follow casualty's **Action Plan for Anaphylaxis**.
- Assist casualty with **EpiPen/ Anapen**.
- **Record time** EpiPen/ Anapen was given.
- Administer oxygen if available.
- Collapse or unconsciousness - **DRSABCD** (Pg 3).

NB - Rescue Breaths require more force due to narrowed airways

#### SIGNS & SYMPTOMS

**Mild to moderate Allergic reaction:**

- Swelling of lips, face, eyes
- Hives or rash (red, itchy)
- Metallic taste in mouth
- Dizziness and Weakness
- Rapid pulse
- Nausea
- Abdominal cramps

**Severe Allergic Reaction (Anaphylaxis):**

- Swelling of throat, tongue
- Difficulty swallowing
- Noisy breathing (stridor)
- Wheezing
- Difficulty talking/ hoarseness
- Pale and floppy (young child)
- Collapse or unconsciousness

**Use EpiPen or Anapen when symptoms become severe.**

EpiPen and Anapen are pre-loaded auto-injecting pens containing a measured dose of adrenaline (Epinephrine). It takes only **1- 2mins** for a mild allergic reaction to escalate to anaphylaxis.



#### How to Use an Anapen:



1. Pull off Black needle shield.



2. Pull off grey safety cap from red button.



3. Place needle end firmly against outer mid-thigh (with or without clothing)



4. Press red button so it clicks and hold for 10secs. Remove Anapen and massage injection site for 10secs

**BEWARE** of needle protruding from end after use.

#### How to Use an EpiPen:



1. Form fist around EpiPen and pull off grey safety cap.



2. Place black end against outer mid-thigh. (with or without clothing)



3. Push down hard until a click is heard or felt and hold in place for 10secs.



4. Remove EpiPen and massage injection site for 10secs.

**DO NOT** remove grey cap until ready to use.

**BEWARE** of needle protruding from black end after use.

## Principles of First Aid

**What is First Aid?** It's the immediate care of an injured or suddenly sick casualty until more advanced care arrives.

**The aims of first aid are to:**

- **Preserve life** – This includes the life of rescuer, bystander and casualty.
- **Protect from further harm** – Ensure the scene is safe and avoid harmful intervention.
- **Prevent condition worsening** – Provide appropriate treatment.
- **Promote recovery** – Act quickly, provide comfort and reassurance, get help, call ☎.

**Helping at an emergency may involve:**

- Phoning for help
- Comforting casualty or family
- Keeping order at an emergency scene
- Administering first aid

There are many ways you can help, but first you must decide to act.

**Reasons why people do not help:**

- Fear of doing something wrong
- Fear of disease transmission
- Uncertainty about the casualty
- Nature of injury or illness (blood, vomit, burnt skin can be unpleasant)
- Presence of bystanders (embarrassed to come forward or take responsibility)

You may need to compose yourself before acting. Do not panic – a calm and controlled first aider gives everyone confidence. If you follow basic first aid procedures, you should deliver appropriate care, even if you don't know what the underlying problem is. Remember, at an emergency scene, your help is needed.

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## Legal Issues

No 'Good Samaritan' or volunteer in Australia has ever been successfully sued for the consequences of rendering assistance to a person in need. A 'Good Samaritan' is a person acting in 'good faith' without the expectation of financial or other reward.

**Duty of care:** In a workplace environment there is an automatic duty of care to staff and customers - a failure to act in a way that is consistent with an obligation to provide reasonable assistance, to the best of our ability, may result in negligence and possible litigation. In the community, you are under no legal obligation to provide first aid.

**Consent:** Before providing first aid, you must first gain consent from the casualty. If the casualty refuses help, you must respect their decision. If the casualty is unresponsive or of unsound mind and therefore unable to give consent, it is assumed they would give consent if they were conscious and/or orientated. If the casualty is a child, the parent/guardian should be asked permission, but if no parent/guardian is present and the injury/illness is life-threatening, immediate first aid should be given.

**Confidentiality:** Personal information about the health of a casualty is confidential. This information includes details of medical conditions, treatment provided and the results of tests. Disclosure of personal information, without the person's written consent is unethical and in some cases may be illegal.

## Communication

The role of the first aider depends on gaining and honouring the trust of casualties. Maintaining trust requires attentiveness to body language, quality of listening and finding culturally appropriate ways of communicating that are courteous and clear. It may sometimes be necessary to communicate through verbal and non-verbal communication and you may need to identify issues that may cause conflict or misunderstanding. The first aider also needs to maintain respect for privacy and dignity and pay careful attention to client consent and confidentiality.

## Reports

While waiting for help and if time permits, make a brief written report to accompany the casualty to hospital. This will reduce time spent at the scene for ambulance crew and further assist medical and nursing staff with initial patient management. A report can be written on a spare piece of paper and should include the following:

- **Date, time, location of incident**
- **Casualty details** - Name, DOB, Address.
- **Contact Person for casualty** - Family member, friend.
- **What happened** - Brief description of injury or illness.
- **First aid action taken** – What you did to help the casualty.
- **Other health problems** – Diabetes, epilepsy, asthma, heart problems, operations.
- **Medications/ allergies** – Current tablets, medicines.
- **When casualty last ate or drank** – Tea, coffee, water, food.
- **Observations of Vital Signs** - Conscious state, pulse, breathing, skin state, pupils.
- **First Aider's name/ phone number** in case medical staff need any further information.

The back inside page contains a 'First Aid Report Form,' which can be torn off and used at a first aid incident.

## Record Keeping

In the workplace, it is important to be aware of the correct documentation and record keeping used in first aid situations.

Each organisation has its own set of procedures and documentation so familiarize yourself with the correct process.

All documentation must be legible and accurate and must contain a description of the illness or injury and any treatment given. Thorough and accurate medical records are essential in any court case or workers compensation issue.

In addition:

- Write in pen (not pencil)
- Never use correction fluid – cross out and initial any changes
- Sign and date the form
- Keep contents strictly confidential

## Self-help/ Evaluation

Each person reacts differently to traumatic events and in some instances strong emotions may affect wellbeing and work performance. Symptoms may appear immediately or sometimes months later after an event and may develop into chronic illness.

There is no right or wrong way to feel after an event but what a person experiences is valid for that person. It is useful to identify and work through these reactions/feelings as early as possible. Speaking to an understanding friend, counselor or medical professional may be beneficial in assisting you to cope with the situation.

In addition, seeking feedback from medical personnel about your first aid performance may assist with self-improvement and prepare you better for any future events.

**Some Reactions/ Symptoms** •Crying for no apparent reason •Difficulty making decisions •Difficulty sleeping •Disbelief •Irritability •Disorientation •Apathy •Sadness •Depression •Excessive drinking or drug use •Extreme hunger or lack of appetite •Fear/anxiety about the future •Feeling powerless •Flashbacks •Headaches •Stomach problems •Heart palpitations •Muscle aches •Stiff neck

## Safe Manual Handling

When lifting or moving a casualty it's important the first aider protects him/herself from injury by using correct lifting techniques - bending the knees and using leg muscles will help protect against back injury. However, knowing your own limitations and asking for assistance if required is also important in preventing injury. In addition, learning the correct procedures for moving a casualty (eg rolling casualty into recovery position) further minimises injury to the casualty and first aider.

## Needle Stick Injury

The risk of catching a serious infection (Hepatitis B, C and HIV) from needle stick injury is very low.

### Reduce the risk of needle stick injury:

- Never bend or snap used needles
- Never re-cap a needle
- Place used needles into a sharps approved container
- Hepatitis B vaccination for workers who regularly come in contact with blood/ body fluids

**NB. Disposable gloves will not protect against needle stick injury.**

**Hygiene** Minimise the risk of cross infection to yourself, bystanders and casualty by taking appropriate precautions:

### Prior to treatment:

- Wash hands with soap and water, or rinse with antiseptic.
- Cover cuts on your hands with a waterproof dressing before putting on gloves.
- Wear disposable gloves.
- Do not touch any unclear object when wearing gloves.
- Use a plastic apron and eye protection.
- Cover any adjacent areas likely to produce infection.

### During treatment:

- Use a face shield/ mask, if available when performing resuscitation.
- DO NOT cough, sneeze or breath over a wound.
- Avoid contact with body fluids.
- DO NOT treat more than one casualty without washing hands and changing gloves.

### After treatment:

- Clean up the casualty, yourself and immediate vicinity.
- Safely dispose of used dressings, bandages and disposable gloves
- Wash hands thoroughly with soap and water, even if gloves were used.
- Restock first aid kit.

### Recommended Contents of a Personal First Aid Kit

Adhesive Strips (Band Aids)	10
Adhesive Tape	1
Alcohol Swab	3
Combine Dressing - Large	1
Crepe Bandage 5cm	1
Crepe Bandage 7.5cm	1
Eye Pad - Sterile	1
First Aid Booklet/Guide	1
Gauze Swab	3
Gloves Disposable	2
Hand Towels	3
Non-Adhesive Dressing	2
Plastic Bag for Amputations	1
Resuscitation Mask	1
Safety Pins	5
Scissors - Blunt/Sharp	1
Splinter Probe	1
Sterile Eye (saline) Solution- 15ml	2
Triangular Bandage	2
Wound Dressing No. 14	1

## First Aid Kits

- Keep a first aid kit at **home**, in your **car** and at **work** in a clean, dry location.
- Make sure it is kept in **easy reach** and that all family members and staff know where the kit is located.
- A regular **check** of contents is essential to ensure contents are present, not out of date and are in good condition.
- First aid kits will **vary** depending on the number of employees, and even the **industry** you work in. If living in a **remote** area the contents will vary from kits kept at homes in the **city**.
- Under **State and Territory legislation** first aid kits are required in all workplaces.

### FIRST AID

- Squeeze blood out of injury site.
- Wipe with alcohol swab.
- Wash hands.
- Place syringe in plastic drink bottle or sharps container.
- Take syringe with you to hospital for analysis.

## Casualty Assessment

When dealing with a person who is ill or injured, you need a clear **Plan of Action**:

1. Start with a Primary Survey (DRSABCD), (Pg 3) which enables identification and management of life-threatening conditions.
2. If there are no life-threatening conditions which require immediate first aid (severe bleeding, no response) then proceed to **Secondary Survey**.



**Secondary Survey:** is a systematic check of the casualty involving **Questions • Examination • Clue Finding** to help identify any problems that may have been missed.

- If the casualty is **unconscious**, the secondary survey is conducted in the recovery position. You may need to look for external clues and ask bystanders some questions.
- If the casualty is **conscious** start with questions followed by examination. Remember to introduce yourself, ask for consent to help and ask their name.

### Questions

- What happened?
- Do you feel pain or numbness anywhere?
- Can you move your arms and legs?
- Do you have any medical conditions?
- Do you take any medications?
- Do you have any allergies?
- When did you last eat?
- (Bystanders may be helpful)

### External Clues

**Medical Alert:** casualties with medical conditions such as diabetes, epilepsy or severe allergy usually have a bracelet, pendant or card to alert people of their condition.

**Medications:** People on regular medication usually carry it with them.



### Examination

**Vital Signs:** are indicators of body function and provide a guide to the casualty's condition and response to treatment.

- **Conscious State:** There are 3 broad levels –
  - Conscious
  - Altered consciousness
  - Unconscious
 Altered consciousness = uncooperative, aggressive, confused, drowsy.
- **Pulse:** The carotid pulse in the neck is the best pulse to check. Feel for rate, rhythm, force, irregularities.
 

Normal pulse rates: Adults: 60-80 /min  
Children: 80-100/min
- **Breathing:** Look, listen and/or feel for breathing rate, depth and other noises eg wheezing, noisy breathing.
 

Normal breathing rates: Adults 16-20 breaths/min  
Children: 25-40 breaths/min

 (Check pulse/ breathing for **15 secs then x by 4** to get rate/min. Use a watch)
- **Skin State:** Look at face and lips.
 

Red, hot skin – fever, heat exhaustion, allergy  
Cool, pale, sweaty – shock, faint, pain, anxiety  
Blue lips (cyanosis) – airway obstruction, asthma, flail chest, collapsed lung, heart failure, hypothermia
- **Pupils:** Unequal, reactive to light

### Head to Toe:

- Seek consent from the conscious casualty before you begin.
- Look and feel for bruises, cuts, deformities and painful areas.
- Start from the head and work down.
- Explain to casualty what you are about to do at each stage eg "I'm just going to move your arm".
- Ask casualty for feedback at each stage eg "Does it hurt when I move your arm?"

## Natural Medicine in First Aid

Some natural remedies may be of benefit in first aid management.

REMEDY	USE	DESCRIPTION
Aloe Vera	Burns	Aloe vera gel (a Hydrogel) is very soothing when applied topically to superficial burns (eg, sunburn).
Arnica	Bruising	Arnica ointment or tincture applied topically to a bruised area assists healing. DO NOT apply to broken skin. Homoeopathic arnica taken orally is also effective.
Calendula	Antiseptic	Calendula tincture or ointment can be applied topically to minor cuts and grazes.
Cantharis	Burns	Homoeopathic cantharis dissolved under the tongue assists healing of all burn types.
Comfrey (Symphytum)	Fractures/ Soft Tissue Injury	Grind fresh comfrey leaf in a mortar/ pestle to form a rough paste. Apply paste to a dressing and secure in place over injury. Homoeopathic comfrey (Symphytum) under tongue also assists healing.
Epsom Salts	Soft Tissue injury	On day 3 or 4 after injury, soak injury for 20mins in bucket of Epsom salts and warm water to draw inflammation and swelling.
Hydrogen Peroxide	Antiseptic/ Throat Gargle	6% H <sub>2</sub> O <sub>2</sub> kills infection in wounds when applied topically. Effective for sore throat when gargled –froths in mouth. NOT poisonous if swallowed.
Hypericum	Nerve Injury	Remedy for nerve injuries, especially crushed finger and toenails. Homoeopathic hypericum taken orally helps relieve pain and assist healing.
Mulla Mulla	Burns/ Fever	Mulla mulla, an Australian Bush Flower Essence, taken orally helps to lower fevers and heal burns.
Rescue Remedy	Emotional stress	Bach flower, 'Rescue Remedy' and Australian Bush Flower, 'Emergency Essence' taken orally are effective remedies for emotional stress.
Rhus Tox Ruta Grav	Soft tissue injury	Homoeopathic Rhus Tox and Ruta Grav taken orally are effective for ligament and tendon injuries. Combine with homoeopathic Arnica and Symphytum for fracture and soft tissue injuries.
Peppermint	Fever/ Heat Exhaustion	Peppermint essential oil rubbed onto soles of feet helps lower body temperature.
Sea Salt	Wound Cleaner	Clean wounds with sterile gauze swabs soaked in warm water and sea salt. DO NOT use cotton wool for cleaning – cotton fibres stick to wound.
Tea tree	Antiseptic	A few drops of tea tree essential oil mixed with Papaw ointment makes an effective antiseptic for minor cuts and grazes.

**Topical:** Apply to skin

**Oral:** Homoeopathic and flower remedies are dissolved under the tongue

## First Aid Report Form

(Complete this form as best you can and give to ambulance officer/ medical personnel)

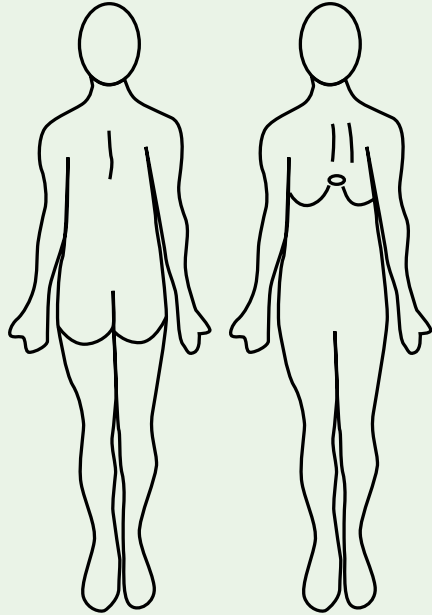
<b>Date:</b> / /	<b>Time:</b>	<b>Location:</b>
<b>Casualty Details:</b>		<b>Pension No:</b>
<b>Name:</b>	<b>DOB:</b> / /	<b>M / F</b>
<b>Address:</b>		
<b>Postcode:</b>		
<b>Contact Person for Casualty (friend/ relative):</b>		
<b>Name:</b>	<b>Phone:</b>	
<b>What Happened (a brief description):</b>		
<b>First Aid Action Taken:</b>		
<b>Other health problems:</b>		<b>Current Medications:</b>
<b>Diabetes</b>	<input type="checkbox"/>	
<b>Epilepsy</b>	<input type="checkbox"/>	
<b>Asthma</b>	<input type="checkbox"/>	
<b>Heart problems</b>	<input type="checkbox"/>	
<b>Cancer</b>	_____	<b>Allergies:</b>
<b>Operations</b>	_____	
<b>Previous injuries</b>		
		<b>Last ate or drank:</b>




cut here

**Turn over**

**Casualty Examination:** mark location of injuries on diagram and briefly describe injury eg cut, bruise, pain, swelling, burn.



**Observations of Vital Signs:**

<b>Time</b>					
<b>Conscious State</b> Fully Conscious Drowsy Unconscious					
<b>Pulse</b> rate: description:					
<b>Breathing</b> rate: description:					
<b>Skin State</b> Colour: Temp: Dry/Clammy:					
<b>Pupils</b> 					

**First Aider's Details:**







(Incase the hospital needs to contact you for more information regarding the incident).

Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_

cut here 

## Emergency Numbers

	Country		
	Australia		
	<b>000</b>		
			
	<b>112</b>		
			
	<b>13 11 26</b>		
Embassy 			
Travel Agent 			

Dial '112' or '911' from a mobile phone with GSM coverage anywhere in the world and your call will be automatically translated to that country's emergency number.

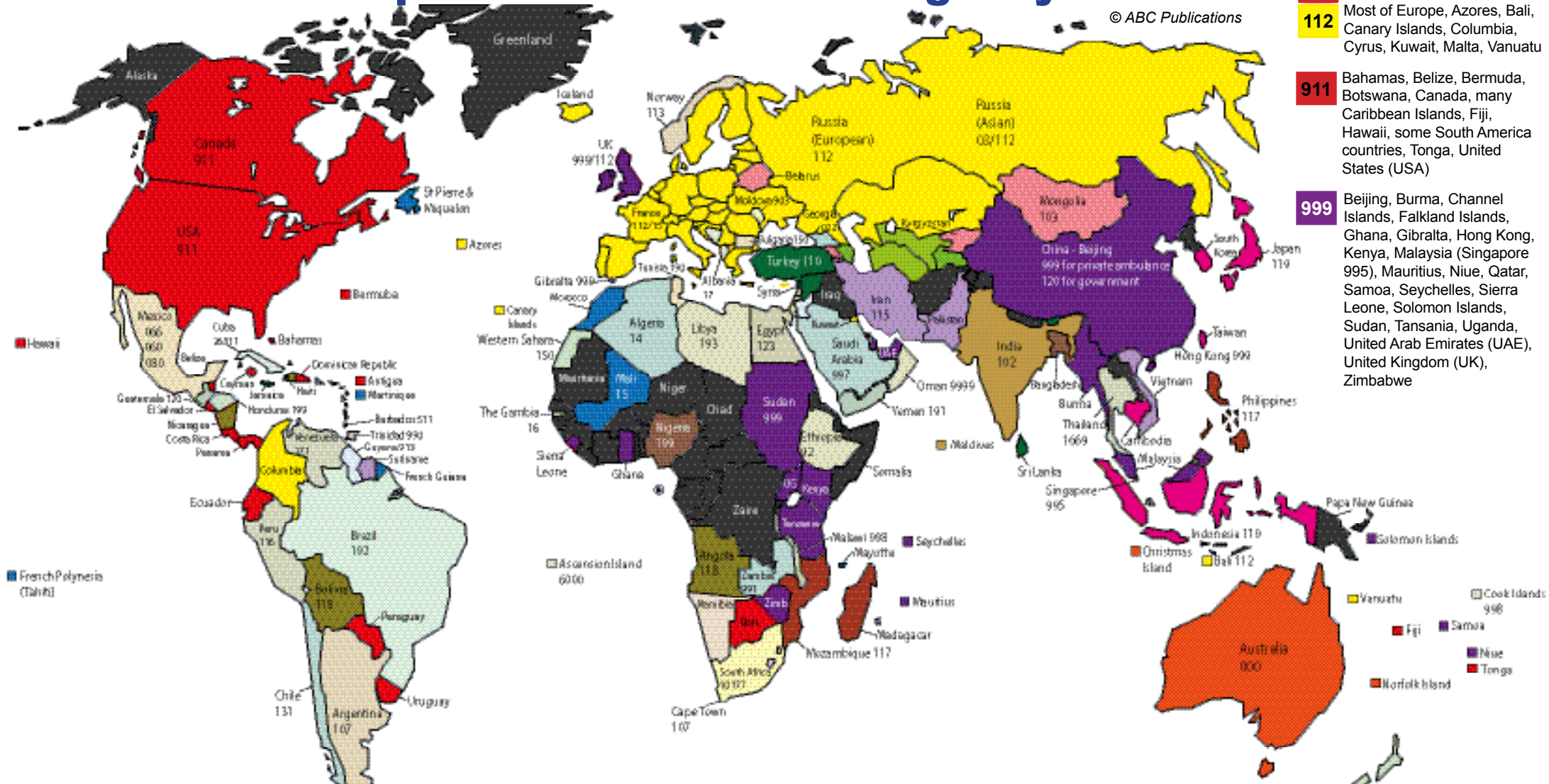
## Local Emergency Numbers

	Phone	Notes
DOCTOR		
DENTIST		
HOSPITAL		
PHARMACY		
POLICE		
TAXI		
ELECTRICAL		
GAS		
WATER		
VEHICLE BREAKDOWN		

# World Map of International Emergency Numbers



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**112** Most of Europe, Azores, Bali, Canary Islands, Columbia, Cyrus, Kuwait, Malta, Vanuatu

**911** Bahamas, Belize, Bermuda, Botswana, Canada, many Caribbean Islands, Fiji, Hawaii, some South America countries, Tonga, United States (USA)

**999** Beijing, Burma, Channel Islands, Falkland Islands, Ghana, Gibraltar, Hong Kong, Kenya, Malaysia (Singapore 995), Mauritius, Niue, Qatar, Samoa, Seychelles, Sierra Leone, Solomon Islands, Sudan, Tansania, Uganda, United Arab Emirates (UAE), United Kingdom (UK), Zimbabwe

French Polynesia (TAHITI)


  
**911**

- 15** France, Mali, Martinique, Mayotte, Morocco, St Pierre & Miquelon, Tahiti (French Polynesia)
- 110** Bhutan, Jamaica, Sri Lanka, Syria, Turkey
- 117** Madagasca, Mozambique, Philippines
- 118** Andorra, Angola, Bolivia, Haiti, Nicaragua, San Marino
- 199** Bangladesh (Dhaka), Nigeria
- No National Emergency Number**

- 119** Cambodia, Indonesia, Japan, South Korea, Taiwan
- 115** Iran, Pakistan, Suriname, Vietnam
- 103** Armenia, Belarus, Kyrgyzstan, Mongolia
- 03** Azerbaijan, Kazakhstan, Russia (Asian) Tajikstan, Uzbekistan
- 000** Australia, Christmas Island, Norfolk Islands

  
**112**

# ABC First Aid Guide



**ABC First Aid Guide** is divided up into four main colour coded sections:

1. *Essential First Aid*
2. *Trauma*
3. *Medical Emergencies*
4. *General First Aid*

Each subsection shows you step-by-step how to recognise and deal with an emergency.

In conjunction with an approved first aid course, this book will assist you learn the skills to handle most emergency situations.

This book incorporates the 2010 Guidelines and is written for Australian conditions.

For training purposes, this book satisfies the Australian Health Training Package competency units:

**HLTFA301B:** Apply First Aid

**HLTCPR201A:** Perform CPR

**HLTFA201A:** Provide Basic Emergency Life Support

Keep this book with your first aid kit in the workplace, at home, in your car or when travelling overseas.

This book contains international emergency numbers and is a useful resource no matter where you are in the world.