ABC of First Aid
Asthma & Anaphylaxis

International Emergency Numbers
Latest Guidelines

Dr Audrey Sisman
## Contents

### Essential First Aid
- Unconscious ........................................ 2
- DRSABCD ........................................... 3
- Basic Life Support Flow Chart ............... 3
- CPR ....................................................... 4
- Choking / Positional asphyxia .............. 6
- Drowning ............................................. 7

### Trauma
- Soft Tissue Injury & Fracture .............. 8
- Upper Limb Injury ............................... 9
- Lower Limb / Pelvic Injury .................. 10
- Bleeding ............................................. 12
- Shock ............................................... 14
- Crush Injury ..................................... 14
- Burns .............................................. 15
- Electric Shock .................................... 16
- Multiple Casualties/ Prioritising .......... 16
- Chest .............................................. 17
- Abdomen ......................................... 18
- Eye ............................................... 19
- Head Injury ........................................ 20
- Spinal Injury ..................................... 21

### Medical Emergencies
- Heart Conditions ................................ 22
- Asthma ............................................. 23
- Croup/ Epiglottitis ............................... 24
- Faint ............................................... 24
- Seizure/ Epilepsy ................................. 25
- Febrile Convulsion .............................. 25
- Diabetes .......................................... 26
- Stroke .............................................. 27
- Hyperventilation ................................. 27
- Heat Exposure ................................... 28
- Cold Exposure ................................... 29
- Bites and Stings ................................ 30
- Poisons ............................................ 32
- Allergy/ Anaphylaxis .......................... 33

### Asthma & Anaphylaxis
- Why Asthma is Dangerous .................. 34
- Asthma Medications & Devices ............ 34
- Asthma Facts & Information ............... 35
- Allergy & Anaphylaxis Facts ............... 36
- About Anaphylaxis ............................. 37

### Risk Assessment
- Manage Anaphylaxis Risks ............... 38
- Anaphylaxis Action Plans ................... 39
- Assessing Hazards & Minimise Risk ....... 40
- Risk Assessment Matrix ..................... 40
- Risk Rating Table ............................... 41
- Asthma Risk Assessment ..................... 42
- Asthma Action Plans ......................... 43

### Education & Child Care
- Regulations, Codes & Procedures ......... 44
- National Child Care Legislation .......... 44
- Communication Plans & Privacy ........... 45
- Normal Clinical Values for Children ...... 46
- AED for Child Care .............................. 46
- Understanding Child Care Law ............ 47

### General First Aid
- Principles of First Aid ........................ 48
- Legal Issues ...................................... 48
- Communication/ Reports ..................... 49
- Record Keeping / Self-Help .................. 49
- Safe Work Practices ............................ 50
- Needlestick Injury / Hygiene ............... 50
- First Aid Kits Contents ........................ 50
- Basic Anatomy & Physiology ............... 51
- Casualty Assessment .......................... 52
- Asthma/Anaphylaxis Management Plan .... 53
- Risk Assessment Form ....................... 54
- First Aid Incident Report Form .......... 55

### World Map
- Inside Back Cover

### Emergency Numbers
- 55
Unconsciousness is a state of unrousable, unresponsiveness, where the casualty is unaware of their surroundings and no purposeful response can be obtained.

NO RESPONSE

Breathing Normally

Recovery Position, Call 📞 monitor

Basic Life Support Chart

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 (eg saliva, blood, food, vomit).
- 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.

Airway management takes priority over spinal injury.

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.

In an EMERGENCY CALL 📞 or 📱
CPR

**Dangers**
- Survey Scene
- Remove or Minimise Hazards

**Hazards**
- Biohazards – blood, body fluids
- Chemicals – spares, 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. Approach a collapsed casualty with caution, they could be anxious, irrational or aggressive, so be ready to step back if necessary.

**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 onto the side and clear using postural drainage and finger sweep method.
- The airway takes precedence over any other injury including a possible spinal injury.
- Promptly roll casualty onto the side to clear the airway if it is obstructed with fluid (eg vomit).

**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

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

**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.

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

- **Use AED when casualty is unconscious, not breathing normally.**
- **Switch on AED & follow voice prompts of the AED.**
- **Caution:** When there are 2 rescuers, continue CPR while one rescuer organises and attaches AED pads:
  - **Children under 8,** use with child pads if available, otherwise use adult pads. If pads touch each other, position one pad on the front and the other pad on the back of the chest. Check manufacturers instructions. Choose appropriate AEDs for child care. (pg 46)

**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** 2) **Early** 3) **Early Defibrillation** 4) Advanced cardiac life support by paramedics

**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 (use 2 fingers for infants)

**2 Rescue Breaths (RB)**
- **2 breaths over 2 secs**
  - Inhale until chest starts to rise.
  - Over-inflation can force air into the stomach causing regurgitation.
  - **Infants** – perform mouth to mouth (pinch with fingers).
  - **Mouth to mouth** (good seal).
  - **Blow** to inflate lungs.
  - **Avoid inhaling re-expired air**.

**Stop CPR when:**
- Casualty responds or begins breathing normally
- Exhausion – you can’t continue
- Health professional arrives and takes over.
- Health professional directs that CPR be ceased

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

**Fire, explosion**
- Careful not to flush fuel from the tank.
- Keep a safe distance from the fire.

**Slippery surfaces**
- Caution: fall injuries.

**Broken glass**
- Careful not to flush glass from the wound.
- Avoid sharp edges.
- Caution: bloodborne disease and shrapnel.

**Needle stick**
- Caution: risk of infection.
- Avoiding infection.

**Biocidal –**
- **Mouth to mouth** (good seal).
- **Blow** to inflate lungs.
- **Avoid inhaling re-expired air**.

**Response**
- “Hello, can you hear me”? “Are you all right?” “Open your eyes”. “Squeeze my hands”.

**Power-lines**
- Caution: electric shock.
- Avoid touching the casualty.

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

**Response**
- “Hello, can you hear me”? “Are you all right?” “Open your eyes”. “Squeeze my hands”.

**Power-lines**
- Caution: electric shock.
- Avoid touching the casualty.

**Protect yourself – use antiseptics and barrier protection: gloves, mask, goggles.**
Choking
Inhalation of a foreign body can cause partial or complete airway obstruction.

**Partial Airway Obstruction (Effective cough):**

**SIGNS & SYMPTOMS**
- Coughing
- Wheezing
- Difficulty breathing
- Nasal flaring
- Cyanosis (blue skin colour)

**FIRST AID**
- Encourage casualty to keep coughing
- Reassurance
- Do NOT deliver back-blows if cough is effective
- Call 911 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 up to 5 back-blows
- Check and clear mouth after each blow
- Deliver up to 5 chest thrusts
- Check and clear mouth after each blow
- Alternate back blows and chest thrusts if obstruction not relieved
- Call 911 if unconscious, commence CPR (pg 4)
- Do NOT apply abdominal pressure – may cause internal injury

**Positional Asphyxia**
Is where an airway is obstructed due to body position. If it is necessary for security, law enforcement officers or carers to physically restrain a violent person, the restrained person must be continuously monitored.

**To prevent positional asphyxia**
- Avoid face-down restraint unless absolutely necessary and reposition as soon as possible
- Never sit or lean on the abdomen
- Identify persons at risk: Psychosis and Drug over dose can lead to cardiac rhythm disturbances and fatal breathing difficulties. Obesity can make it difficult to breathe in face-down position. Physically disabled may have breathing difficulty in some positions
- Pay close attention to a person saying they can’t breathe, gurgling or gasping sounds, lips and face turning blue, increased resistance or sudden tranquility

**Drowning**
Drowning is the process of experiencing respiratory impairment from immersion in liquid. Interruption of oxygen to the brain is the most important consequence of drowning so early rescue and resuscitation are the major factors in survival. Drowning can be fatal or non-fatal.

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

**A Drowning Victim**

**FIRST AID**
On land or boat:
- Call 911
- Assess the casualty on the back with head and body at same level
- Do NOT routinely roll the casualty onto the side to assess airway and breathing
- Commence CPR if required (pg 4)
- 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 and trained
- All immersion casualties, even if seemingly minor, must be assessed in hospital as complications often follow

**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

**Rescue Breathing in water**
A Drowning Victim

- Complete Airway Obstruction (Ineffective cough):
- Back blows are delivered standing or lying using the heel of the hand between the shoulder blades. Lay an infant face down across the lap. If after 5 back blows the airway is still obstructed, use chest thrusts. Check airway after each back blow. The aim is to relieve the obstruction with each blow rather than to give all five blows. An obstruction in the airway will cause resistance when giving Rescue Breaths. A foreign body in the airway can be removed later, if it is blown further into the airways during CPR

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

- Positional Asphyxia
Is where an airway is obstructed due to body position. If it is necessary for security, law enforcement officers or carers to physically restrain a violent person, the restrained person must be continuously monitored.

- To prevent positional asphyxia
  - Avoid face-down restraint unless absolutely necessary and reposition as soon as possible
  - Never sit or lean on the abdomen
  - Identify persons at risk: Psychosis and Drug over dose can lead to cardiac rhythm disturbances and fatal breathing difficulties. Obesity can make it difficult to breathe in face-down position. Physically disabled may have breathing difficulty in some positions
  - Pay close attention to a person saying they can’t breathe, gurgling or gasping sounds, lips and face turning blue, increased resistance or sudden tranquility

- 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

**Rescue Breathing in water**
A Drowning Victim

- If blockage doesn’t clear
- Chest thrusts are delivered standing or lying using one or two hands - a wall or firm surface is required. Chest thrusts are harsher and slower than chest compressions (CPR). Check airway after each chest thrust

- Do not attempt to expel vomiting and regurgitation often occur during resuscitation of a drowned casualty. After rolling casualty onto their side to clear the airway, reassess condition. If not breathing, promptly roll the casualty on to their back and continue with resuscitation. Avoid delays or interruptions to CPR

- Vomiting and regurgitation often occur during resuscitation of a drowned casualty. After rolling casualty onto their side to clear the airway, reassess condition. If not breathing, promptly roll the casualty on to their back and continue with resuscitation. Avoid delays or interruptions to CPR.

- Do not attempt to expel vomiting and regurgitation often occur during resuscitation of a drowned casualty. After rolling casualty onto their side to clear the airway, reassess condition. If not breathing, promptly roll the casualty on to their back and continue with resuscitation. Avoid delays or interruptions to CPR.

- Do not attempt to expel vomiting and regurgitation often occur during resuscitation of a drowned casualty. After rolling casualty onto their side to clear the airway, reassess condition. If not breathing, promptly roll the casualty on to their back and continue with resuscitation. Avoid delays or interruptions to CPR.

- Do not attempt to expel vomiting and regurgitation often occur during resuscitation of a drowned casualty. After rolling casualty onto their side to clear the airway, reassess condition. If not breathing, promptly roll the casualty on to their back and continue with resuscitation. Avoid delays or interruptions to CPR.
**Soft Tissue Injury & Fracture**

**Sprain:** Over-extension of a joint with stretching and tearing of ligaments.  
**Strain:** Over-stretching with tearing of muscle tissues 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.

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*  
  *Suggests 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.R.**  
- **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 52, 56)**

**Note:** If medical help is close by and the casualty doesn’t need to be moved, a splint may not be required to immobilise a fracture. However, where a casualty needs to be moved, especially over rough terrain or long distances a splint will help to immobilise a fracture.

**Soft Tissue Management:** Do No HARM  
- **No Heat:** No Alcohol: No Running: No Massage.
- **R.I.C.E.R.** 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 - 20 mins – 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.

**Refer:** Refer casualty to a doctor, in case there is other injury eg fracture. **Record** incident.  
- **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 (pg 11) after immobilisation ie after bandaging, splinting, sling.**  
- **May need to slowly adjust position of limb if no circulation is present.**
**Lower Limb Injury**

### Pelvic Injury:

- **Signs & Symptoms**
  - Pain in hip or groin region
  - Pain worse on movement
  - Inability to walk
  - Shock (pg 14)

- **First Aid**
  - Call 
  - Reassure casualty
  - Control any external bleeding.

The first aid aim is to prevent further injury by immobilizing the fracture. The casualty will usually support and immobilize the injury in the most comfortable position and a splint will not usually be required, especially if an ambulance is available. Do NOT move, or align fractures unless it is necessary to maintain circulation. For suspected fractured pelvis always consider spinal injury. Do not move the casualty unless necessary.

### Thigh Injury:

- **Signs & Symptoms**
  - Pain
  - Numbness
  - Cold to touch
  - Tingling
  - Palpable

- **First Aid**
  - Pain in
  - Could be:
    - Fractured Pelvis
    - Fractured neck of femur
    - Dislocating head of femur
    - Sprain/strain

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.

### Knee Injury:

- **Signs & Symptoms**
  - Pain
  - Compression:
  - Elevation:

- **First Aid**
  - Pain in:
  - Could be:
    - Fractured femur
    - Strain: front of thigh (quadriceps)
    - Strain: back (hamstrings)

  - Pain in:
  - Could be:
    - Fractured patella
    - Dislocating patella
    - Cartilage tear
    - Sprain

  - Pain in:
  - Could be:
    - Fractured tibia
    - Fractured fibula
    - Dislocation
    - Sprain/strain

  - Pain in:
  - Could be:
    - Fractured tarsal/metatarsal/phalange
    - Dislocation
    - Sprain/strain

**R.I.C.E.R.**

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

Refer and record

**R.I.C.E.R.** Support knee in position of comfort. Do not try to straighten knee if painful.

### Ankle Injury:

- **Signs & Symptoms**
  - Pain
  - Swelling
  - Elevation:

- **First Aid**
  - Pain in:
  - Could be:
    - Fractured tarsal/metatarsal/phalange
    - Dislocation:
    - Sprain/strain

**R.I.C.E.R.**

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

Refer and record

**SYMPTOMS**

- Consider internal bleeding from bladder, uterus, bowel damage.
- 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.

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.

**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
- Palpable
- Painful

**R.I.C.E.R.**

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

Refer and record

**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 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

- Position all bandages before tying off.

**Bandaging and splints** may be required if the casualty needs to be transported. Use triangular bandages, broad bandages, belts, clothing or sheets to tie legs together. Tie-off on uninjured leg, above and below fracture site.

**Position splints** underneath limb to support & immobilise fracture.

**Position splints** under the injured limb to provide support.

**Pads over splint** to make more comfortable.

**Check circulation**

- for a
- for an
- for a

- Thigh Injury

- Knee Injury

- Ankle Injury

**Management:**

- Allow casualty to adopt position of comfort.
- If unsure whether injury is a fracture or soft tissue injury, treat as for fracture (pg 8).
- Elevate a suspected fracture after it has been immobilised.
- Minimise movement to avoid further injury.
- Check circulation after immobilisation (above)
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:
- **Arterial** Bleed - damaged artery; bright red blood; spurring
- **Venous** Bleed - damaged vein; dark red blood; flowing
- **Capillary** - tiny blood vessels; bright red blood; oozing

**Types of wounds** associated with bleeding are:
- Abrasion
- Incision
- Laceration
- Puncture
- Embedded object
- Tear
- Amputation

Major External Bleeding:
- The aim is to reduce blood loss from the casualty.
- Direct, sustained pressure is the fastest, easiest, most effective way to stop bleeding.
- Apply direct or indirect pressure on or near the wound as appropriate.

**FIRST AID**
- Check for Dangers to self, casualty & bystanders.
- Use disposable gloves if available.
- **Direct Pressure Method:**
  - Quickly check for embedded objects (pg 13)
  - Identify the bleeding point and 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 bleeding part, restrict movement, immobilise the part, advise casualty to rest
  - Call ☎
  - Reassure casualty.
  - Monitor vital signs (pg 52, 56)
  - 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 the bleeding point.
  - Treat for shock (pg 14) if required.

**TOURNIQUET:**
- Used to control life-threatening bleeding (eg traumatic amputation of a limb).
- 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.

Internal Bleeding:
- 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 early recognition and calling ☎ can save lives.

**Concealed:**
- Splenic, liver, pancreas, brain.

**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 10 mins (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 >20 mins - 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 may require a tourniquet (pg 12) 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 loss of effective blood circulation resulting in tissue/organ damage and is life threatening.

**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 diarrhoea and vomiting
  - Heat stroke
  - Heart attack
  - Severe infection
  - Anaphylaxis (severe allergy)
  - Brain/ spinal cord injury

**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).

**FIRST AID**
- Control external bleeding (pg 12)
- Call  
- Place casualty in position of comfort, ideally lying down
- Administer oxygen if available
- Maintain body temperature
- Reassure
- Monitor vital signs (pg 52, 56).
- Give nothing by mouth (may cause vomiting and/ or delay surgery).

**If Unconscious:**
- DRSABCD (pg 3)

**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 (pg 12).
- DO NOT use a tourniquet (pg 12) to manage a crush injury.
- Manage other injuries.
- Comfort and reassure.
- Monitor vital signs (pg 52, 56).

**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.
- It is recommended to remove the crushing force as soon as safe and possible.

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

**FIRST AID**
- DRSABCD
- Cool affected area with water for as long as necessary - usually 20 mins.
- Remove rings, watches, jewellery 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.

**If Unconscious:**
- DRSABCD (pg 3)

**Extensive burns may result in shock from fluid loss (pg 14)**

**Signs & Symptoms**
- Reddening (like sunburn)
- Painful
- Red and blistersing
- 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 in swirling 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 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 30 mins • 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 associated with other injuries (pg 16) • Call 

**Note:**
- 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.

**NB:**
- In early stages of blood loss, children may have a normal pulse rate, but pallor is the warning sign.

**Extensive burns may result in shock from fluid loss (pg 14)**
**Electric Shock**

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

**FIRST AID**
- ENSURE SAFETY OF YOURSELF AND Bystanders.
- Call 112.
- Turn off power at plug point (or if not possible at fuse box or main circuit breaker).
- Move casualty from electrical supply.
- Commence CPR if required (pg 4).
- 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 **POWER LINES** 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 10 m from electrified material (car body, pool of water, cable).
- You can do nothing for a casualty within the danger zone! Protect yourself and others.

**Multiple Casualties/ Prioritising** 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:**

**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)

**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 and sling may help to immobilise the injury.
- If bandages increase discomfort, loosen or remove them.
- Apply a ‘Collar & Cuff’ sling to arm on injured side.
- If Unconscious: Recovery position, injured side down.

**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 112 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 911/112
- 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 52, 56).
- 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).

**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 under head and shoulders and support under bent knees.
- If unconscious, place in recovery position, legs elevated if possible.
- 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 20-30 mins.
- 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 neutralize with other chemicals as this can create heat.

**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.
- 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 911/112.
- Aim to prevent further damage.
- Position padding to immobilise the object.
- Protect the area to avoid further damage.
- 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 casually injured side down to allow free drainage of fluid from the ear.
- DO NOT plug or bandage ear.
- AIRWAY management takes priority over ALL injuries, including spine.
- 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.

**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
- Losses 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.

**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.

**First Aid**

**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. (Log roll technique). Use safe manual handling techniques to avoid injuring yourself. eg ask for assistance; bend your knees.

**Spinal Injury**

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

**Conscious:**

**First Aid**

**Conscious Casualty:**
- 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.

**Unconscious Casualty:**
- Monitor Vital Signs every 5-10 mins (pg 52, 56).
- Control bleeding and cover wounds.
- Support/stabilise head and neck.
- Keep warm with a blanket.
- Prepare for possible vomit.

**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).

**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 intend to perform CPR, the helmet needs to be removed carefully. Otherwise leave helmet removal to the experts.

**First Aid**

**Helmet Removal:**
- Recovery position with head & neck support
- Call ☎
- Monitor Vital Signs every 5-10 mins (pg 52, 56)
- Control bleeding and cover wounds
- Support/ stabilise 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).

SIGNS & SYMPTOMS

- 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 spreading to the • Jaw • Neck • Shoulder • Left arm or right 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).
- 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 if directed • Monitor
- Assist casualty to take prescribed heart medication (Anginine 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 10 mins, 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

Monitor vital signs
Give Oxygen if trained
Prepare for CPR

Vital Signs
(pg 52, 56)

Give Aspirin (300mg) if directed by emergency services.
Before directing you to give Aspirin, emergency services will want to know if:
- Casualty takes Warfarin (blood thinning medication)
- Casualty has a history of Asthma or Stomach ulcers

Asthma

Asthma is a disorder of the airways that can cause respiratory distress. Spasm, inflammation and increased mucus production in the airways causes breathing difficulties. Asthma attacks can be triggered in sensitive airways by changes in the weather, exercise, emotional stress, pollen, dust-mite, food preservatives, smoke, fumes or cold and flu infection. An asthma attack can take from a few minutes to a few days to develop.

SIGNS & SYMPTOMS

- Mild:
  • Dry persistent cough
  • Wheeze
  • Breathless but speaks in sentences
  • Chest tightness
- Severe: (Call ambulance straight away)
  • Gasping for breath (too breathless to speak)
  • Wheeze inaudible (no air movement)
  • Cyanosis (blue lips)
  • Skin pale and sweaty
  • Exhaustion
  • Anxious/ Distressed
  • Rapid pulse
  • Collapse (respiratory arrest)

Young Children may also demonstrate:
- Severe coughing and vomiting
- Stop eating or drinking
- Restless or drowsy
- Muscles in throat and between ribs ‘suck in’

FIRST AID

- Sit casually comfortably upright.
- Calm and reassure - stay with casualty
- Follow casualty’s Asthma Action Plan or give
- Reliever Medication (4 puffs - 1 puff followed by 4 breaths) Shake first.
  - Borrow an inhaler if necessary
  - If no improvement, repeat after 4 mins
  - Call if no improvement
  - Give oxygen if available (8L / min)
  - Keep giving 4 puffs every 4 mins until ambulance arrives or casualty improves significantly. Shake before each puff.
  - If Collapse:
    • Commence DRSABCD (pg 3)
  - Rescue breaths may require more force due to narrow airway. Slowly inflate with steady pressure until chest begins to rise. Allow time for chest to fall during expiration.
  - If no spacer available

Using Puffer - with spacer

Reliever Medication:
Blue - grey colour.
Salbutamol puffers are the most common (eg Ventolin, Asmol, Aironir) also Terbutaline (eg Bricanyl - supplied in a turbuhaler)
- It is not harmful to give salbutamol to someone who does not have asthma.
- ADULTS can use Symbicort in emergency; follow SMART action plan, available from Asthma Foundation

- Shock inhaler, remove cap and put inhaler upright into spacer.
- Place spacer between teeth and seal with lips.
- Administer 1 puff and ask casualty to breath in and out for 4 breaths through the spacer.
- Repeat until 4 puffs have been given.
- Wait 4 mins and repeat if there is no improvement.

Call if casualty does not respond to medication. Say it is an asthma emergency.

Using Puffer - with spacer

When to give Terbutaline

- Shock inhaler, remove cap. Put inhaler between teeth and seal with lips.
- Administer 1 puff as casualty inhales slowly and steadily.
- Slip inhaler from mouth. Ask casualty to hold breath for 4 sec or as long as comfortable.
- Breathe out slowly, away from inhaler.
- Repeat until 4 puffs have been given.
- Wait 4 mins and repeat if no improvement.
Medical Emergencies

Croup and Epiglottitis

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

**Croup:** Viral infection affecting upper airways in infants and children <5 yrs. Slow onset, usually follows a cold or sore throat and lasts 3-4 days. Can also affect adults.

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

**SIGNS & SYMPTOMS**
- **CROUP:**
  - Cold-like symptoms
  - Barking cough
  - Noisy breathing
  - Slight temperature
  - Worse at night
  - Breathing difficulties
  - Cyanosis (blue lips)
- **EPIGLOTTITIS:**
  - Drools – can’t swallow
  - Quiet, doesn’t cough
  - Leans forward
  - Won’t talk
  - High temperature
  - Skin flushed

**FIRST AID**
- **DO NOT** examine child’s throat – this may cause complete blockage.
- Calm and Reassure.
- Symptoms are often worse if child is upset.
- Seek medical aid.
- **Call**
  - Comfort, reassure
  - Sit upright on your lap
  - Lots of tender loving care until ambulance arrives.

**SIGNS & SYMPTOMS**
- **Faint**
  - 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 casually flat
- Pregnant woman turn onto left side.
- Recovery position if unconscious > few secs.
- **DO NOT** give food or drink to unconscious.
- Check for other injuries.
- Advise casualty to seek medical assessment.

**Febrile Convulsion**

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 6 mths and 6 yrs.

**SIGNS & SYMPTOMS**
- **Tonic-Clonic Seizure**
  - 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 may roll upwards or stare.
  - Jerking movements of body (clonic phase – lasts few mins).
  - Blue discolouration 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 (pp 52, 56).
- Reassure casualty and allow to sleep under supervision at end of seizure.
- **Call**
  - Seizure lasts longer than 5 mins.
  - 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**

Febrile convulsions are associated with a high body temperature (>37°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 6 mths and 6 yrs.

**SIGNS & SYMPTOMS**
- **Fainting**
  - 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). There could be underlying causes, which may need medical assessment.

**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

**SIGNS & SYMPTOMS**
- **Drug Withdrawal.**
  - Taste, smell, sound or sight.

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

**SIGNS & SYMPTOMS**
- **Poisoning**
  - Drug Withdrawal.
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**

<table>
<thead>
<tr>
<th>HYPOglycaemia (LOW)</th>
<th>HYPERglycaemia (HIGH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pale, cold sweaty skin</td>
<td>Warm, dry skin</td>
</tr>
<tr>
<td>Fast progression</td>
<td>Slow progression</td>
</tr>
<tr>
<td>Hunger</td>
<td>Acetone smell on breath (nail polish remover)</td>
</tr>
<tr>
<td>Trembling</td>
<td>Thirst</td>
</tr>
<tr>
<td>Weakness</td>
<td>Passes urine frequently</td>
</tr>
<tr>
<td>Seizure</td>
<td>Nausea and vomiting</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td></td>
</tr>
</tbody>
</table>

- 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 if no improvement within a few minutes of giving sugar (could be hyperglycaemia or another medical condition).
- 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.

**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.

**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 52, 56).

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 < 60 mins. The risk of a stroke subsequent to a TIA is high, therefore early recognition and treatment is vital.

**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.
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
- **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.

### MODERATE Hypothermia 33° – 30°C
- Shivering ceases
- Muscle rigidity increases
- Consciousness clouded
- Slow breathing
  - **FIRST AID**
    - Call 📞 if in doubt
    - 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 30–45 secs as hypothermia slows down everything.
      - If no signs of life – commence CPR while re-warming casualty.

### SEVERE Hypothermia <30°C
- Unconscious
- Cardiac arrhythmias
- Pupils fixed and dilated
- Appears dead
- Cardiac arrest

#### Signs & Symptoms
- White, waxy skin
- Skin feels cold
- 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

**FATAL**
- Snakes
- Funnel web Spiders
- Red back spiders/ others
- Bees
- Wasps
- Scorpion
- Ants

**NON-FATAL**
- Rattlesnakes
- Copperheads
- Black Widows
- Brown Recluse

#### SEA CREATURES

**FATAL**
- Sea Snakes
- Blue-Ringed Octopus
- Cone Shell

**Tropics**
- Box Jellyfish
- Irukandji Jellyfish
- Bluebottles

**Non-Serious**
- Fish Stings: Stingray

---

#### SIGNS & SYMPTOMS:
- **Snakes**
  - Pressure Immobilisation Technique (PIT) (see next page for PIT)
- **Funnel web Spiders**
  - COLD COMPRESS/ ICE PACK
- **Red back spiders/ others**
- **Bee/Wasp/ Ant/ Tick**:
  - DO NOT wash bite site (land animals)
  - DO NOT suck venom from a bite
  - DO NOT cut or incise bite site
  - DO NOT use a tourniquet (pg 12)
  - DO NOT kill animal – identification of species is made from venom on skin.

---

#### FIRST AID:
- **DRSABCD**
- Rest and reassurance
- Call ****
- Pressure Immobilisation Technique
- Resuscitation if needed, takes priority over PIT

---

#### Box Jellyfish
- **SIGNS & SYMPTOMS**
  - Severe immediate skin pain
  - Frosted pattern of skin marks
  - Collapse
  - Cardiac Arrest

- **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 unconscious, commence CPR

---

### Pressure Immobilisation Technique (PIT):

1. **Apply a pressure bandage** over the bite area (firm enough NOT to easily slide a finger between bandage and skin).
2. **Apply a second bandage** from fingers or toes extending upwards covering as much of limb as possible.
3. **Splint the bandaged limb**, including joints either side of bite site.

---

**Non-Serious Bite/Stings:**
- **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/Ant/Tick**: Localised pain at site (tick bite not painful) • Remove insect from skin and move casualty to safe area • Immediately remove sting or carefully remove tick
  - Apply cold pack • If casualty has a history of allergy, follow anaphylaxis plan (pg 33)
  - Refer casualty to hospital if sting on face or tongue

---

**HOT WATER** - Use cold compress if no pain relief with hot water

---

**Potentially Fatal Bite/Sting:**

- Snakes
- Funnel web Spider
- Blue-Ringed Octopus
- Cone Shell
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 - Poisons Information Centre Free Call, 24/7, Australia wide.

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

**Ingested:** Swallowed substances can be broadly categorised into ‘corrosive’ eg dish washer detergents, caustics, toilet/ bathroom cleaners and petroleum or ‘non-corrosive’ eg plants, medications (tablets/ liquids) and illicit drugs. Some drugs make people drowsy or unconscious, others can cause panic or aggression others cause dangerous dehydration.

**Adverse drug experience** - (‘bad trip’) indicated by confusion, hallucination, overcome by crowds, possibly violent. Keep yourself safe, seek assistance. To help: • Stay calm yourself and talk calmly. • Reassure the person. • Rest the person. • Reduce stimuli, move slowly, take to a quiet place. • Encourage happy, positive, simple thoughts.

**SIGNS & SYMPTOMS of a corrosive substance:** • Pain in the mouth/ abdomen • Burns to lips/ mouth • Nausea/ vomiting • Tight chest • Difficulty breathing • Sweating • Unconscious

**Poison Information Centre.**

**Absorbed:** Chemical splash from eg pesticide, weed killer.

**First Aid**
- Identify type and quantity of poison (from container/ bottle).
- Establish the time of poisoning.
- Do NOT induce vomiting unless advised.
- Do NOT give anything by mouth unless advised.
- Drinking too much water can cause serious problems.

**FOR ALL POISONING:**
- DRSABC
- What? When? How Much?
- Call Poisons Information Centre for advice or Call 131126
- Monitor Vital Signs (pg 52, 56)
- Send any containers and/ or suicide notes with casualty to hospital.
- Send any vomit with casualty to hospital.

**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**
- DO NOT become contaminated yourself – wear gloves, goggles, protective clothing.
- Ask casualty to remove all contaminated clothing.
- Flood affected area with running water.

**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. Seek urgent medical assistance if breathing is slow or abnormal. 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).

**First Aid**
- Move casualty to fresh air.
- Loosen tight clothing.
- Give oxygen if available & trained.
- Call 131126.

**Allergy/ Anaphylaxis** Anaphylaxis is a life-threatening allergic reaction which can be triggered by nuts (especially peanuts), cow’s milk, eggs, wheat, insect stings/bites (bee, wasp, ant, tick), fish, shellfish, 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.

**SIGNS & SYMPTOMS** Can be highly variable and may include:
- **Mild to moderate Allergic reaction:**
  - Swelling of lips, face, eyes
  - Hives or rash (red, itchy)
  - Tingling mouth
  - Abdominal pain, vomiting (severe if reaction to insects)
- **Severe Allergic Reaction (Anaphylaxis):**
  - Mild allergy may not precede anaphylaxis
  - Difficult/ noisy breathing
  - Wheeze or persistent cough
  - Difficulty talking/ hoarseness
  - Swelling/ tightness in throat
  - Persistent dizziness
  - Pale and floppy (young child)
  - Collapse or unconsciousness

**FIRST AID**
- Lay casualty flat, do not stand or walk. If breathing is difficult allow to sit.
- Give adrenaline (record time adrenaline was given)
- Call 131126.
- Administer oxygen if available.
- Give asthma reliever medications for breathing difficulties (pg 23).
- Further adrenaline should be given if no improvement after 5 mins.
- Collapse or unresponsive - DRSABC (pg 3).

**Use adrenaline when symptoms become severe.** EpiPen and Anapen are auto-injecting pens containing a measured dose of adrenaline (Epinephrine). It can take only 1-2 mins for a mild allergic reaction to escalate to anaphylaxis.

**How to Use an EpiPen:**
1. Form fist around EpiPen and pull off blue safety-release.
2. Push orange end hard into outer thigh so it clicks and hold for 10 secs.
3. Remove Epipen and massage injection site for 10 secs.

**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 10 secs.

**NB:** When the orange needle end is withdrawn from the thigh, the needle is automatically protected.

**BEWARE** of needle protruding from end after use.
Why Asthma is Dangerous
The extra mucus that is produced during an asthma attack, can get trapped in the lungs during an asthma attack. This causes acidosis, which leads to acidosis. Acidosis is life threatening and needs advanced medical management, in hospital. When a person’s asthma can’t be controlled with reliever medication it is critical that they receive urgent hospital care before carbon dioxide levels build to an irreversible level.

Asthma Medications & Devices

### Relievers

<table>
<thead>
<tr>
<th>Name</th>
<th>Speed</th>
<th>Purpose</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salbutamol brands</td>
<td>Fast acting</td>
<td>Relax airway muscles</td>
<td>Ventolin &amp; Asmol Puffer, Autohaler, Turbuhaler</td>
</tr>
<tr>
<td>Terbutaline brand</td>
<td>Slow acting</td>
<td>Can take weeks for full effect</td>
<td>Bricanyl Turbuhaler*</td>
</tr>
</tbody>
</table>

### Preventers

<table>
<thead>
<tr>
<th>Name</th>
<th>Speed</th>
<th>Purpose</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brands include:</td>
<td>Slow acting</td>
<td>Reduces the sensitivity to asthma triggers</td>
<td>Puffer, Accuhaler, Turbuhaler, Tablet</td>
</tr>
</tbody>
</table>

### Symptom Controllers

<table>
<thead>
<tr>
<th>Name</th>
<th>Speed</th>
<th>Purpose</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxis and Serevent</td>
<td>Slower acting</td>
<td>Prevents exercise induced asthma (EIA)</td>
<td>Turbuhaler, Accuhaler</td>
</tr>
</tbody>
</table>

### Combination Medication

#### Preventer plus a Symptom Controller

<table>
<thead>
<tr>
<th>Name</th>
<th>Speed</th>
<th>Purpose</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seretide</td>
<td>Slower acting</td>
<td>Prevention plus control of symptoms</td>
<td>Accuhaler or MDI (Puffer)</td>
</tr>
</tbody>
</table>

#### Can be used in emergency for ADULTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Speed</th>
<th>Purpose</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbicort</td>
<td>Reliever is fast acting</td>
<td>Prevention plus control of symptoms</td>
<td>Turbuhaler* or MDI (Puffer)</td>
</tr>
</tbody>
</table>

**CAUTION**

Symbicort may be used for casualties over 12, when prescribed. **Max 6 doses at a time. Max 12 doses per day of Symbicort**.

**Spacers**

- Help medication to reach the lungs.
- Protect the throat from irritation.
- Help coordinate breath with puff.

Note: Spacers are for single person use only. Once used from a first aid kit they need to be replaced. Used spacer can be given to casualty. **Personal spacers** should be washed every month. Use warm soapy water; air dry; do not rinse.

**Asthma in the workplace** - some occupations have higher risks of asthma

- **Occupational Asthma (OA) People affected:**
  - Flour, dust: (cooks, bakers, farmers)
  - Sawdust: (builders, carpenters)
  - Animals: (vets, lab technicians)
  - Detergents: (cleaners)
  - Resins, solder: (repairers, builders, electricians, Spray painters)

### Managing Workplace Asthma - How to reduce the risk

- **PPE (Personal Protective Equipment)**: Re-deploy workers to lower risk area or duties
- **Have Emergency Asthma Kit available at first aid station**
- **Keep filters clean**
- **Seek less toxic alternatives**
- **Provide emergency asthma management training**

### Manage asthma in aged care

How to help people with asthma who have special needs and circumstances

- **Wheelchairs**: Keep person in wheelchair; upright as possible. (Unconscious - DRSABCD)
- **In-bed asthma attack**: Raise the bed head or use pillows or cushions to support upright.
- **In shower or bath**: Maintain client in bath or shower (on seat if possible) support sitting up. Empty the bath water. Keep client warm. Preserve client’s dignity - cover.
- **Communication difficulty**: Use communication aids to reassure and give explanations.
- **Intellectual disability**: Develop and maintain regular routines.

### Exercise Induced Asthma (EIA)

At rest breathing is mostly through the nose. During exercise, air is breathed through the mouth and air that enters the lungs is colder, dryer and unfiltered. These factors can trigger an asthma attack.

Exercise is an excellent activity for everyone including asthmatics as it helps to improve overall health and lung function. Exercise is one trigger that should not be avoided. Therefore it is important to manage EIA so people with asthma can continue to participate in most sports.

**Managing EIA**

- **Take reliever 5-20 minutes before exercise**
- **Warm-up before exercise**
- **Warm-down after exercise**
- **Always carry blue reliever medication in case needed**

**Tips for coaches:**

- Use the “2 Strikes - You Are Out” rule (if symptoms occur during match: Stop playing & take reliever. Resume activity if symptom free. If symptoms recur: take reliever, do not play again on same day).
- Get whole team to warm-up / warm-down.
- Asthma training for coaches and first aiders.
- Display asthma posters and brochures in club rooms.
- Check with Australian Sports Anti-Doping Authority for info on banned medications.

1 Australian Sports Anti-Doping Authority (ASADA)  http://www.asada.gov.au/substances/
Asthma & Anaphylaxis

There are two basic categories of anaphylaxis: **IgE mediated** and idiopathic. IgE mediated anaphylaxis is a result of the immune system releasing large quantities of histamine and other chemicals which causes the typical signs of anaphylaxis. Idiopathic anaphylaxis is not fully understood, but also causes severe life threatening reactions.

**Anaphylaxis Facts - Australia**

<table>
<thead>
<tr>
<th>Causes of death from anaphylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td>60% medications</td>
</tr>
<tr>
<td>20% insects</td>
</tr>
<tr>
<td>10% unknown</td>
</tr>
<tr>
<td>5% food</td>
</tr>
<tr>
<td>5% other (latex, hair dye, etc)</td>
</tr>
</tbody>
</table>

**Anaphylaxis Facts - Australia**

- Allergies in Australia are very common, affecting about 1 out of 5 people.
- Death from anaphylaxis is rare.
- About 12 die each year from anaphylaxis.
- Most allergic reactions are **NOT** life threatening.
- If anaphylaxis is fatal then death usually occurs very soon after contact with the trigger.
  - < 5 min after injected medication
  - < 15 min after insect stings
  - < 30 min after food

**Insect stings/ticks:**

Ants, Bees and Wasps are the most likely insects to cause anaphylaxis. Ticks also cause anaphylaxis in some people; most reactions to tick occur when attempting to remove the tick.

**Medications:**

Anaesthetics and injected medications such as antibiotics are the most common drugs to cause anaphylaxis. Some over-the-counter medications such as aspirin and anti-inflammatories (NSAIDS) can cause anaphylaxis. Some alternative and complementary medicines are based on bee products and flowers that are known allergens.

**Food:** Food is the most common cause of anaphylaxis in children.

Any food can cause anaphylaxis but these 9 Foods are the most common:

- Peanuts
- Dairy
- Sea Food
- Shell Fish
- Tree Nuts
- Gluten
- Soy
- Sesame Seeds
- Eggs

**What does all this mean?** Most allergic reactions do not cause death. However when anaphylaxis is **life threatening** it develops very rapidly and requires immediate treatment with adrenaline. First Aiders and carers must learn to identify signs of anaphylaxis and be prepared to act quickly.
Manage Anaphylaxis Risks

There are four sectors that need to consider the risks of anaphylaxis.
1. **Children in care.** This includes, Long Day Care, Kindergarten, Pre-school, Out-Of-School-Hours Care (OOSH), Family Day Care.
2. **Schools.** Primary and Secondary
3. **Workplaces.** All workplaces, including the workers in child care employment.
4. **Voluntary organisations, especially those working with minors.** This includes Sporting Clubs, Youth Groups eg Church Group, Scouts/Guides, Bike Clubs etc.

Each of these sectors should have an **anaphylaxis policy** and an **anaphylaxis management plan** (pg 53) and communication plan (pg 45) in place. For the **Child Care sector** there are stringent legal requirements that impose obligations on the child care centres, the employees and the parents.

Voluntary Organisations - Duty-of-Care

Generally voluntary organisations have a duty-of-care responsibility when running activities. When a duty-of-care relationship exists there is responsibility to:

1. Do what a **reasonable** person would do
2. In **similar** circumstances
3. With the same level of **training**

**Case study.**

- “Billy”, a member of a local football club and known to be allergic to wasps.
- While playing football “away” from the “home ground”, some wasps were attracted to a plate of cut-up oranges.
- Billy was stung on the hand when he ate one of the pieces of orange.
- Billy’s adrenaline autoinjector was in his sports bag, in the dressing room.
- An ambulance was called, and Billy was rushed to hospital.
- The subsequent investigation revealed the football club anaphylaxis policy helped Billy survive.

**Organisations should**

- Conduct a risk assessment.
- Develop a policy
- Have communication plan

**A Risk Assessment should** be part of the planning for every activity. Some risks can be anticipated. For example a child playing sport could have an anaphylactic attack if they were allergic to insect stings.

**Example:**

- Billy’s club knew he was anaphylactic from questions on the registration form.
- The club policy **encouraged** members to “Let People Know”, so Billy’s team mates **knew** about his anaphylaxis and they all knew where his **autoinjector** was located.
- A communication plan was developed which included an **awareness program**.
- Information posters for conditions like **anaphylaxis**, asthma, epilepsy and diabetes were on the clubroom notice boards and **articles** were printed in the club newsletter.
- The communication plan made sure the **coach**, the **trainers** and the **first aiders** were all aware that Billy was anaphylactic and they were all **properly trained**.
- The **policy** required that an **Anaphylaxis trained person** was present at every activity.

**Anaphylaxis Action Plans**

**ASCIA** is a professional medical organisation, comprised mostly of scientists and specialist doctors in the field of allergy and immunology.

**ASCIA** provide useful information and resources about Allergy and Anaphylaxis and also produce **ASCIA Anaphylaxis Action Plans**. Action plans provide important information to help all stakeholders reduce the risks of anaphylaxis.

Action Plans must be supplied to child care centres and schools by the parents* of a child who is diagnosed with Anaphylaxis.

**In a workplace**, although it is not compulsory to provide an action plan in a workplace environment it is strongly recommended and employers should encourage workers to inform first aiders and co-workers about anaphylaxis and other life-threatening conditions so co-workers including first aiders can respond better in an emergency.

**Personal Action Plans** should be stored with medication. They contain:

- **Individual’s details** - name, age
- **Emergency contact details**
- **Extra instructions**
- **General signs and symptoms**
- **Doctor’s signature** - this is a medical document
- **Instructions for using either Anapen or EpiPen**

**This is a sample Anaphylaxis action plan for EpiPen.**

**What to do for mild reaction**

**What to do for severe reaction**

**If in doubt... give the autoinjector**

For **privacy**, Action Plans should be displayed discreetly to enable rescuers to recognise individuals and their set of signs and symptoms.

**A copy of the Action Plan should be stored with medication.**

Throughout this book the word parent includes legal guardian.
Assess Hazards and Minimise Risk

Risk Assessment Matrix

<table>
<thead>
<tr>
<th>Hazard (eg Anaphylaxis)</th>
<th>Consequence (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1=Slight</td>
<td>1st aid 1 or 2</td>
</tr>
<tr>
<td>2=Minor</td>
<td>1st aid &gt;2</td>
</tr>
<tr>
<td>3=Moderate</td>
<td>Hospital 1 or 2</td>
</tr>
<tr>
<td>4=Major</td>
<td>Death or Hospital &gt;2</td>
</tr>
<tr>
<td>5=Severe</td>
<td></td>
</tr>
<tr>
<td>No treatment</td>
<td></td>
</tr>
</tbody>
</table>

Risk Rating Table: A risk rating table can be customised to meet needs of an organisation

<table>
<thead>
<tr>
<th>Risk Rating &amp; Action</th>
<th>Risk Name Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY HIGH</td>
<td>Activity must not proceed while any risk is rated VERY HIGH</td>
</tr>
<tr>
<td>HIGH</td>
<td>Activity can only proceed while any risk is rated HIGH with risk solution approved and signed by Safety Officer and Management (Principal)</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>Risk management plan must be in place before activity begins</td>
</tr>
<tr>
<td>LOW</td>
<td>No further action required</td>
</tr>
</tbody>
</table>

How to use the template to complete risk assessment. Two worked examples of risk assessment. One example in a child care centre and one in a workplace.

# 1 Sharing lunch. for an anaphylactic child who is allergic to food (eg egg products). After the “strategy” is put in place the residual risk is MEDIUM. The risk rating table (above) shows a MEDIUM risk activity can proceed provided the risk management plan is in place.

# 5 Working alone outdoors. Although it is unlikely that the worker will get stung, the consequence could be death. The residual risk is still HIGH. The risk rating table shows that HIGH risk “strategy” can proceed but must be approved by the safety officer and manager, to ensure all practicable steps have been taken to control the risk.

### Risk Assessment for Anaphylaxis

Instructions to use this matrix: 1. Look up “Likelihood” score 2. Look up “Consequence” score 3. Read “Risk” from table.

<table>
<thead>
<tr>
<th>No.</th>
<th>Type</th>
<th>Activity</th>
<th>Hazard</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Risk</th>
<th>Person responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Child Day Care Centre</td>
<td>BYO Lunches</td>
<td>Children share lunches. Possible contamination.</td>
<td>3</td>
<td>5</td>
<td>VH</td>
<td>M Coordinator</td>
</tr>
<tr>
<td>2</td>
<td>Cooking activity</td>
<td>Excursion</td>
<td>Exposure to allergen. “Hidden” ingredient. Accidental cross contamination of ingredients</td>
<td>3</td>
<td>5</td>
<td>VH</td>
<td>L Coordinator</td>
</tr>
<tr>
<td>3</td>
<td>Catering for function</td>
<td>Excursion</td>
<td>Exposure to trigger, communication difficulties, separation of child from medication.</td>
<td>4</td>
<td>5</td>
<td>VH</td>
<td>H Activity Coordinator/Manager</td>
</tr>
<tr>
<td>4</td>
<td>Catering for function</td>
<td>Catering for function</td>
<td>Accidental cross contamination of food platter, supplied by caterers for in-service training</td>
<td>3</td>
<td>3</td>
<td>H</td>
<td>H Activity Coordinator/Manager</td>
</tr>
<tr>
<td>5</td>
<td>Workplace working alone</td>
<td>Outdoor worker working alone</td>
<td>Worker allergic to Jack Jumper Ant (JJA) works alone as a meter reader</td>
<td>2</td>
<td>5</td>
<td>H</td>
<td>H Safety Officer Supervisor</td>
</tr>
<tr>
<td>6</td>
<td>Power line tree clearing</td>
<td>Power line tree clearing</td>
<td>Worker allergic to bees</td>
<td>2</td>
<td>5</td>
<td>H</td>
<td>H Safety Officer Manager</td>
</tr>
</tbody>
</table>
### Asthma Risk Assessment

<table>
<thead>
<tr>
<th>Common Asthma Triggers</th>
<th>Possible Risk Management Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pollens from grasses, trees, shrubs</td>
<td>Consider removing problem plants around schools, child care centres and work places.</td>
</tr>
<tr>
<td>• Weather Changes especially sudden cold changes; moving from hot to cold.</td>
<td>Careful planning of night time activities, camps, working overtime, plan for unexpected delays. Preheat rooms.</td>
</tr>
<tr>
<td>• Moulds are affected by wind rain and temperatures. Can be present in garden mulches and wood chips.</td>
<td>PPE when gardening, potting or working with mulches. Scheduled cleaning of bathrooms, commercial laundries; use nontoxic cleaners.</td>
</tr>
<tr>
<td>• Animal dander and saliva</td>
<td>Consult with parents before introducing a “pet” day. Cats, dogs, horses, rodents, even insects, can trigger asthma.</td>
</tr>
<tr>
<td>• Chemicals &amp; cosmetics</td>
<td>Develop a dress code policy. Avoid highly scented deodorant. Include cleaning staff in communication plan.</td>
</tr>
<tr>
<td>• Foods &amp; Additives</td>
<td>Have a food policy. Check ALL ingredients, for identified triggers. Alert cooking staff, catering suppliers.</td>
</tr>
<tr>
<td>• Dust &amp; Dust Mites</td>
<td>Schedule cleaning to reduce dust levels during open times. Vacuum frequently. Use damp cloth for dusting.</td>
</tr>
<tr>
<td>• Exercise is a common asthma trigger and affects about 50% of people with asthma.</td>
<td>Allow time for people to warm up AND warm down. Aim to control asthma rather than avoid exercise.</td>
</tr>
</tbody>
</table>

Examples using the risk assessment matrix

**Child care centre** has three children with asthma enrolled. The Asthma management plans supplied to the centre identify triggers: grass pollens; hair spray, cosmetics and food additives (MSG sulphites and salicylates).

**Workplace** A factory worker reports asthma being triggered by the floor sanding. The residual risk is HIGH. The risk rating table (pg 41) indicates that the safety officer and management must both approve the strategies before work can proceed.

### Asthma Action Plans

Asthma Management Plans and Asthma Action Plans are an integral part of an asthma policy and communication plan. There are a great variety of Asthma Action Plans available. A sample of some of the range is presented here.

Parents of children with asthma, who attend school or child care facilities are required to provide the school or centre with an up-to-date action plan for asthma. The action plan must be completed by their GP (doctor) or respiratory specialist.

### Example of Risk Assessment for Asthma

<table>
<thead>
<tr>
<th>No.</th>
<th>Type</th>
<th>Activity, infrastructure or environment</th>
<th>Hazard</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lawn Mowing</td>
<td>Grass pollens known trigger</td>
<td>4</td>
<td>3</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Child Care</td>
<td>Hair spray, cosmetics, deodorant, perfumes</td>
<td>Child care workers trigger asthma in sensitive children</td>
<td>3</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>3</td>
<td>MSG, sulphites, salicylates</td>
<td>Snack foods and lunches may contain ingredients that trigger asthma</td>
<td>4</td>
<td>3</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Work</td>
<td>Employees triggered by dust</td>
<td>Cleaning and vacuuming disturb dust.</td>
<td>4</td>
<td>4</td>
<td>VH</td>
</tr>
<tr>
<td>5</td>
<td>Sanding timber floors</td>
<td>Occupational asthma caused by wood dust</td>
<td>5</td>
<td>4</td>
<td>VH</td>
<td></td>
</tr>
</tbody>
</table>

**Strategy**

In schools and child care facilities, strategies must be developed in consultation with parents.

<table>
<thead>
<tr>
<th>No.</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Risk</th>
<th>Name</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>M</td>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>L</td>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>5</td>
<td>H</td>
<td>Coordinator/Manager</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>4</td>
<td>H</td>
<td>Manager/ Safety Officer</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>4</td>
<td>H</td>
<td>Safety Officer Supervisor</td>
<td></td>
</tr>
</tbody>
</table>
Regulations, Codes and Procedures

First Aiders in the workplace need to have knowledge of and comply with, state and territory regulations, first aid codes of practice (also called compliance codes) and workplace procedures. Often workplace procedures will provide guidelines on how to comply.

**Regulations** control a wide range of activities in the workplace such as:
- qualifications required
- electrical safety
- storage and transport of dangerous goods
- food safety
- transport including school busses
- fire safety

**Codes of Practice** give approved methods of how to comply with regulations for example the compliance code for first aid:
- Lists what to put into a workplace first aid kit (pg 50) explains how many first aiders are required for workplace
- Describes how to conduct a hazard assessment (pg 40)
- There are many Codes of Practice/Compliance Codes covering a wide range of workplace health and safety issues

**Workplace Policy & Procedures** are instructions written by an employer on how to perform tasks safely. Some examples of tasks that should have a P&Ps:
- cleaning a coolroom
- unloading a delivery vehicle
- use tools eg chain saw
- cleaning an asthma spacer
- changing a nappy
- preparing for an excursion

National Child Care Legislation

Child care first aiders should be aware of the regulations that affect first aid and medications in child care settings. These are regulations 90 to 95.

**90 Medical Conditions Policy.**

This regulation requires education and care services to have a written policy about medical conditions.

**91 Medical conditions policy must be provided to parents.**

This policy is very important for children with medical conditions such as asthma, diabetes and anaphylaxis.

**93 Administration of medication.**

Medication must be authorised. It must be recorded. In an emergency medication can be authorised verbally by parent or if unable to be contacted by a GP or emergency service.

**92 Medication Record**

This regulation is about medication records which must record the following details:
- Authorisation to administer
- Medication • Dosage • Name of child • Method • Time and Date
- Name of who administered
- Other person’s name (see reg 95) • Signatures

**94 Exception to authorisation requirement— anaphylaxis or asthma emergency.** Medication may be administered to a child without an authorisation in case of anaphylaxis or asthma emergency. In such case notify parent and emergency services as soon as practicable.

**95 Procedure for administration of medication**

Medication must be:
- Administered from it’s original container
- with child’s name on it
- “in date”
- Instructions must be followed.
- The dosage of the medication and the identity of the child must be checked by another person (Family Day Care do not need to check with another person)

Communication Plans

**A Communication Plan is an essential part of managing anaphylaxis or asthma risks to identify:**
- Who needs to know (the stakeholders)
- The roles of each of the stakeholders
- What information is needed
- How the information will be distributed
- Where medication will be located

**A card system can assist children to summon help. The colour of the card, visible from a distance, is sufficient to alert staff.**

**Medical Alerts communicate to rescuers**

Stakeholders:

**In an office environment the stakeholders will include**
- First Aiders
- Employers
- Co-workers
- Managers / supervisors
- Caterers

**In a school setting stakeholders will include**
- Carers & Parents
- First Aid Officers
- Teachers (also Relief & Temporary) and Teacher’s Aids
- Specialty teachers including
  - Sport
  - Drama
  - Music
  - Cooking
  - Teachers on Yard Duty
  - Food industry staff including canteen and caterers
  - Administration, Cleaning staff, Maintenance, and Bus Drivers
  - Outdoor Education Staff
  - School Camp Providers
  - Volunteers
  - Other students

Privacy **Privacy is important.** Personal information must be stored securely. The information can only be revealed to authorised people. The communication plan should explain who would have access to this information. In a school this would include teachers for example. In a workplace this would include first aiders and supervisors. A workplace must provide opportunity for new employees to reveal life threatening conditions during the induction process. The employer must act on the information when it is supplied. An employee may choose NOT to reveal anaphylaxis, asthma or other medical conditions. This will be more likely to happen if an employee senses they will be teased or bullied about their condition.

A communication plan should explore ways to encourage employees to inform key people about medical conditions and explain the benefits of sharing vital information with co-workers. When co-workers know how to use an autoinjector, and know where it is located, they can respond to an emergency more efficiently.

**Use notice boards** and newsletters to raise awareness about medical conditions in the school, club house or workplace. Employees are more willing to reveal important medical information if they feel the information will be used respectfully, in a supportive environment.

Seek permission

Always seek permission from an employee before passing on medical information that has been provided in confidence. This should be done in writing and to explain how the information will be circulated, why the information will be circulated and who the information will be provided to. This information can be included on the medical form, at commencement of employment.
Normal clinical values for children

Generally children and infants have different heart rates and respiration rates from adults. These differences vary, depending on many conditions.

<table>
<thead>
<tr>
<th></th>
<th>Adults</th>
<th>12-5 y</th>
<th>5-1 y</th>
<th>&lt;1 y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse/min</td>
<td>60-100</td>
<td>80-120</td>
<td>95-150</td>
<td>100-180</td>
</tr>
<tr>
<td>Breaths/min</td>
<td>12-20</td>
<td>20-25</td>
<td>25-35</td>
<td>40-60</td>
</tr>
<tr>
<td>Temp °C</td>
<td>36-37</td>
<td>36-37</td>
<td>36-37</td>
<td>36-37</td>
</tr>
</tbody>
</table>

Table shows approximate range of normal clinical values by age

In adults it is generally accepted that:
- Normal heart rate (at rest) is about 72
- Normal breathing rate is about 15
- Normal temperature is about 37°C.

Children and babies usually have about the same temperature (37°C) as adults.

Heart rate (pulse) and breathing rates are fastest in infants and younger children and slow down as the child gets older. One reason is because the devices are not reliable when checking if the heart rhythm is a normal rhythm. The faster heart rate of infants can cause the AED to give a false reading.

There are a number of other differences between smaller children and adults.

Cartilage in the trachea is not fully developed at birth which means the airway is very soft and pliable and very easy to obstruct. Infants skull bones are not fully knitted together, which can make them more vulnerable to head injury.

Proportionally an infant’s head is much larger than an adult. A baby’s head is nearly 20% of total body surface area, while an adult head is only about 10%. A burn to an infant’s face is more serious than a burn to an adult face. Infants do not have fully developed temperature regulatory systems which means infants are more susceptible to hypothermia and hyperthermia. Children can become dehydrated very quickly, especially if they are vomiting or have episodes of diarrhoea.

AED* for child care (Defibs)

Defibs can be used on a casualty who is unconscious and not breathing normally and who is over the age of 8 years old.

For children under 8, use with paediatric (child) pads if available. If child pads are not available use adult pads. If the pads cannot be placed without touching each other, position one pad on the front of the casualty’s chest and the other pad on the back of the chest. Some defibs automatically adjust the size of the shock to the size of the casualty. Check manufactures instructions.

Do not use defibs on infants (under 12 months). They are not reliable when checking infant heart rhythms.

Care should be taken when purchasing an AED for an education or care setting to select a device that is suitable for the age group.

* AED = Automated External Defibrillator

Understanding Child Care Law

The Australian Commonwealth Government makes laws that apply to the whole of Australia (for example taxation law.)

State Governments make laws that only apply to a state (for example health or education.)

Local Governments make laws that only apply to a council (for example use of incinerators.)


National Laws are not one single act of the Commonwealth Parliament but are the same legislation passed separately in each state. Sometimes a proposed National Law conflicts with existing State laws. An example of this is laws about who can administer an autoinjector. When there is a conflict then the relevant State may change the wording of the National Law for that particular state.

So even though National Child Care Regulations are intended to be the same across Australia they still vary from state to state. You need to check what the law is in your state.

WHO is ACECQA?

The Australian Children’s Education and Care Quality Authority (ACECQA) was created by the COAG to provide national leadership in promoting continuous improvement in early childhood education and care and school age care in Australia.

ACECQA has many resources: www.acecqa.gov.au

WHO is COAG?

The Council of Australian Governments (COAG) was created to oversee policy reforms which require cooperative action by Australian Governments.

COAG created the NQF (National Quality Framework) and ACECQA to introduce National Child Care Law and Regulations.

National Child Care Regulations apply to long day care, OOSH, pre-school & family day care but do not apply to schools. Regulations for schools are the responsibility of each of the State Education departments.

Victoria’s Ministerial Order 90 is a sample of regulations for schools. Other States have similar legislation (pg 44)

means call your country’s emergency number

National Child Care Regulations.

Both Commonwealth & State Governments recognised it would be desirable to have uniform child-care regulations across Australia.

The Commonwealth Government does not have legal jurisdiction to create this legislation, so instead, the states used COAG in a cooperative action to pass the same legislation in each of their States. ACECQA was created to coordinate implementation of National Child Care Legislation.

Since the introduction of the National Child Care Regulations the Child Care law in all States will now be very similar to other States but may have important differences.
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 a 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 112.

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.

**Getting Help:**
Call 112 for ambulance, fire or police. If from a mobile phone fails, call 112.
If you ask for ‘ambulance’ a call taker will ask you the following: • What is the exact location of the incident? • What is the phone number from which you are calling? • Caller’s name • What has happened? • How many casualties? • Condition of the casualty(s)
Stay calm and respond clearly. The call taker will provide you with first aid instructions and dispatch the ambulance and paramedics. **DO NOT hang-up** until you are told to do so or the operator hangs up first. If a bystander is making the call, ensure they confirm with you that the call has been made and that the location is exact.

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 (there is an automatic duty of care to provide help to staff and customers), which means you are required to provide help to your best ability at your work place. In the community, you are usually under no legal obligation to provide first aid. **Consent:** Where possible, always gain consent from the casualty before providing first aid. If the casualty refuses help, you must respect that decision. When the casualty is a child, if feasible seek permission from the parent/guardian. If the parent/guardian is not present immediate first aid should be given. In a **child care** situation, parents must notify the centre if the child has any medical conditions and also provide medications and instructions. Consent forms are signed at enrolment. In an emergency, parents or a doctor can also provide authorisation over the phone. **Confidentiality:** Personal information about the health of a casualty is confidential. This information includes details of medical conditions and treatment provided. First aiders should only disclose personal information when handing-over to medical assistance eg paramedics. **Currency requirements** for first aid skills & knowledge varies between jurisdictions. A first aid certificate is a statement that the candidate was assessed as competent **on a given date**. The accepted industry standard is that certificates are valid evidence of competency for 3 years for first aid and 1 year for CPR. Some industries require employees to renew certificates more frequently.

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 the 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.

Record Keeping

In the workplace, it is important to be aware of the correct documentation and record keeping used in first aid situations.
Every organisation has its own 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 well being 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. It is important for all people who have been involved in an incident to take part in a debrief. Workplaces must provide opportunity for detecting after an incident. In a community setting 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 Work Practices and Manual Handling

When moving a casualty (eg into recovery position, or out of danger) it’s important the first aider protects him/herself from injury eg using correct manual handling techniques; bending the knees and using leg muscles to protect against back injury. Knowing your own skills and limitations and asking for help when required will help prevent injury. Always adhere to safe work practices to reduce potential risks. In the workplace (including when providing first aid) there is a legal obligation to use supplied Personal Protection Equipment (PPE).

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 standard precautions to control infection:

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 unclean object when wearing gloves
• Use a plastic apron and eye protection.
• Cover any adjacent areas likely to produce infection.

First Aid Kits

Locate first aid kits in workplaces, vehicles and in the home in a clean, dry, dust-free location.

Make sure first aid kits are accessible and signage clearly indicates their location.

Check kits regularly for completeness and valid dates.

Contents will vary depending on the number of employees, and the industry you work in. High risk industries may need extra modules.

List first aid officers in workplace kits.

Under State and Territory legislation first aid kits are required in all workplaces.

Basic Anatomy and Physiology

Anatomy: The science of the structure of the body

Physiology: The science of the functions of the body

Normal breathing is breathing in and out regularly about every 3-5 seconds. If a person is not breathing normally, their body will not have enough oxygen to supply the brain and other organs.

The Heart

Has four chambers. Valves inside the heart control the way blood flows. The aorta is the main artery taking blood out to the organs and tissues.

Coronary arteries. A heart attack is caused by the coronary arteries becoming blocked.

The Skeleton

Protects vital organs, provides anchor points for muscles, and a structure to the body. Bone marrow is an important source of blood cell production. Fractures of major bones can cause major internal bleeding and impair blood cell replacement.
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:

- **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)

- **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
    - **Skin State**: Look at face and lips.
      - Red, hot skin – fever, heat exhaustion, allergy
      - Cool, pale, sweaty – shock, faint, pain, anxiety
    - **Pupils**: Unequal, reactive to light

- **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.

  - **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?”

NB. The pulse is not checked during CPR

---

Asthma/Anaphylaxis Management Plan

**School/Employer:**
**Phone:**
**Student/Employee name:**
**Age:**
**Year level/Department:**
**Severely allergic to:**
**Other health/medical conditions:**

**Storage Location of Medication:**

**Parent/carer/next-of-kin information 1**

**Name:**
**Relationship:**
**Home phone:**
**Work phone:**
**Mobile:**
**Address:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Home phone</th>
<th>Work phone</th>
<th>Mobile</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Parent/carer/next-of-kin information 2**

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Home phone</th>
<th>Work phone</th>
<th>Mobile</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Emergency care to be provided at school/work:** Refer to action plan. Other: 

**General use autoinjector storage:**

**The anaphylaxis management plan has been put together with my knowledge and input**

**Communication plan actioned:** Review date: 

**Signature of parent/employee:** Date: 

**Signature of principal/supervisor:** Date:

**RISK**

<table>
<thead>
<tr>
<th>STRATEGY - remove the risk if possible: otherwise reduce the risk</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Music**

- Music teacher to be aware, there should be no sharing of wind instruments, e.g. recorders. Speak with the parent about providing the child’s own instrument.

**Canteen**

- Staff (or volunteers) trained to prevent cross contamination of ‘safe’ foods
- Child having distinguishable lunch order bag
- Restriction on who serves the child when they go to the canteen
- Photos of the “at risk” children in the canteen
- Encourage parents of child to view products available
- Display posters / School Canteen Discussion Guide. www.allergyfacts.org.au

**Sunscreen**

- Parents of children at risk of anaphylaxis should be informed that sunscreen is offered to children. They may want to provide their own.

**Excursions**

- Plan an emergency response procedure prior to the event.
- Outline the roles of teachers / helpers if an anaphylactic reaction occurs.
- Distribute laminated cards to all attending teachers, detailing the following:
  - Location of event, Map reference (Melway), Nearest cross street.
  - Procedure for calling ambulance advise: allergic reaction; requires adrenaline.
  - Prior to event, check that mobile phone reception is available and if not, consider other form of emergency communication eg radio.

This and other resources available from: http://www.education.vic.gov.au/school/teachers/health/Pages/anaphylaxisschl.aspx
### Risk Assessment Form

<table>
<thead>
<tr>
<th>Person responsible</th>
<th>Date</th>
<th>Name</th>
<th>Risk</th>
<th>Consequence</th>
<th>Likelihood</th>
<th>Date</th>
</tr>
</thead>
</table>

### First Aid Incident Report Form

(Complete this form as best as you can and give copy to paramedic and keep record in accordance with VHS procedures)

<table>
<thead>
<tr>
<th>Date: /</th>
<th>Time:</th>
<th>Location:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casualty Details:</td>
<td>Name:</td>
<td>DOB: /</td>
<td>M / F</td>
</tr>
<tr>
<td>Home Address:</td>
<td>Postcode:</td>
<td>Notified</td>
<td>yes</td>
</tr>
<tr>
<td>Family Contact Name:</td>
<td>Phone:</td>
<td>Notified</td>
<td>yes</td>
</tr>
<tr>
<td>Work department:</td>
<td>Supervisor name:</td>
<td>Notified</td>
<td>yes</td>
</tr>
<tr>
<td>Management:</td>
<td>Work safe:</td>
<td>Notified</td>
<td>yes</td>
</tr>
</tbody>
</table>

What Happened (a brief description):

First Aid Action Taken:

Ambulance called: yes Time: Referred to:

Known health issues

<table>
<thead>
<tr>
<th>Current Medications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes yes</td>
</tr>
<tr>
<td>Epilepsy yes</td>
</tr>
<tr>
<td>Asthma yes</td>
</tr>
<tr>
<td>Anaphylaxis yes</td>
</tr>
<tr>
<td>Heart yes</td>
</tr>
</tbody>
</table>

What? Medications given

<table>
<thead>
<tr>
<th>Time</th>
<th>Dose</th>
</tr>
</thead>
</table>

Last ate or drank: What?

When?

Other

<table>
<thead>
<tr>
<th>What</th>
<th>Medicated</th>
</tr>
</thead>
</table>

Plan prepared by: Signature: Date:

In consultation with: Position:

Communicated to: Comments:

Venue and safety information reviewed: yes no

Attached: yes no
Casualty Examination: mark location of injuries on diagram and briefly describe injury eg cut, bruise, pain, swelling, burn.

Verbal Secondary Survey
W-H-A-M-M-M-E-D
What happened
Hurt - where does it hurt
Allergy
Medications
Medical conditions - alerts
Move your arms and legs
Eat or drink last
Document the answers

Observations of Vital Signs:

<table>
<thead>
<tr>
<th>Time</th>
<th>Conscious State</th>
<th>Pulse</th>
<th>Breathing</th>
<th>Skin State</th>
<th>Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Conscious</td>
<td></td>
<td></td>
<td>Colour:</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>Drowsy</td>
<td></td>
<td></td>
<td>Temp:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unconscious</td>
<td></td>
<td></td>
<td>Dry/Clammy:</td>
<td></td>
</tr>
</tbody>
</table>

First Aider’s Details:
(In case the hospital needs to contact you for more information regarding the incident).

Name: (Print)__________________________________________________
Phone:________________________ Signature:______________________
ABC of First Aid Asthma & Anaphylaxis is divided into seven main colour coded sections:

1. Essential First Aid
2. Trauma
3. Medical Emergencies
4. Asthma & Anaphylaxis
5. Risk Assessment
6. Education & Childcare
7. General First Aid

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 latest guidelines and is written for Australian conditions.

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

**HLTAID001**: Provide CPR
**HLTAID002**: Provide Basic Emergency Life Support
**HLTAID003**: Provide First Aid
**HLTAID004**: Provide an emergency first aid response in an education and care setting

**22024VIC**: Course in Emergency Management of Asthma in the Workplace
**22099VIC**: Course in First Aid Management of Anaphylaxis