

HLTAID003

Provide first aid



Housekeeping

- Introductions
- Session overview
- WHS procedures
- Break times
- Overview of assessments

First aid

- Aims of first aid:
 - Preserve **life**
 - Protect the **unconscious**
 - Prevent condition from **worsening**
 - Promote **recovery**
 - Seek **medical assistance**
- Reassurance and TLC

First aid guidelines

- Australian Resuscitation Council
 - Guidelines for standardised resuscitation techniques
- Australian national peak clinical bodies:
 - National Asthma Council of Australia
 - National Stroke Foundation
 - Australian Society of Clinical Immunology and Allergy
 - Epilepsy Foundation

Legal issues

- Good Samaritan Law – offers protection to first aiders where care is provided ‘in good faith’
- Consent:
 - Gain consent prior to treatment
 - Injured person has right to refuse assistance
 - Consent implied if unconscious

Legal issues (cont'd)

- Duty of care:
 - Provide standard of care appropriate to training
 - Stay within own skills and limitations
 - ‘Reasonable’ care and skill
 - Generally no legal duty of care to provide first aid except in some circumstances
 - Once started, cannot abandon

Legal issues (cont'd)

- Negligence:
 - Standard of care breached and further injury sustained
 - Care provided recklessly
 - Established first aid principles not used

Legal issues (cont'd)

- Record keeping:
 - Record all assistance given
 - Clear, accurate observations only (let the medical personnel diagnose!)
 - Keep secure and confidential

Legal issues (cont'd)

- Privacy Act 1988 protects people's rights to privacy and confidentiality
 - Reduce number of bystanders to a minimum
 - Set up barricade (eg blankets) to screen the area if it is public
 - Report only to those who need to know: eg medical personnel
 - Be sensitive to the casualty's privacy when debriefing
 - Keep records secure

Workplace first aid

- First Aid in the Workplace – Code of Practice
- Employer is responsible for the health, safety and wellbeing of employees. They must:
 - Provide first aid equipment
 - Ensure access to first aid facilities
 - Have trained first aiders in place
 - As far as is reasonably practical

Workplace first aid procedures

- Ensure workers understand first aid in their workplace
- Assign first aid responsibilities
- Minor and major incidents in the workplace
- Specify requirements:
 - Training for first aiders
 - Reporting/record keeping requirements
 - Debriefing/counselling
- Infection control

Workplace risk management

- Medication not included in first aid kit.
- Identify hazards
- Assess type, severity and likelihood
- Provide appropriate first aid equipment, facilities and training
- Review requirements regularly
- Consider hazards and risks in your workplace: how can these be prevented?

Risk assessment matrix

	Consequence				
	1 Insignificant	2 Minor	3 Significant	4 Major	5 Severe
Likelihood					
Almost certain	Medium	Medium	High	Extreme	Extreme
Likely	Low	Medium	High	High	Extreme
Possible	Low	Medium	High	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Low	Medium

Risk management

- Common risks of providing first aid:
 - Infection control
 - Manual handling
 - Aggressive people
- What other risks can you think of?

Manual handling

- Be aware of the risk
- Plan the lift
- Consider weight of casualty: use additional help if available
- Lift without twisting: flex at the hips and bend the knees
- Maintain firm grip
- Watch for hazards

Infection control

- Standard precautions
- Hand hygiene
- Handling and disposal of sharps
- Cleaning of surfaces and reusable equipment
- Management of spills and contaminated laundry
- Handling and disposal of waste
- PPE



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Respectful behaviour

- Show respect to your casualties at all times
- Cultural considerations
- Consent
- Keep advised of all that is going on that relates to them
- Privacy and confidentiality
- Be non-judgmental and non-discriminatory

Basic anatomy

- Skeletal system
- Muscular system
- Cardiovascular system
- Respiratory system
- Anatomy of the chest

Psychological impact

- Recognise the impact of stress
 - Physical
 - Mental
 - Emotional
 - Behavioural

Debriefing

- Should be offered following a critical incident
- Formal or informal process
- Group and/or personal therapy
- Assists people to deal with trauma
- Consider confidentiality during debriefing

Emergency services

- Ambulance, Fire, Police
- 000, 112



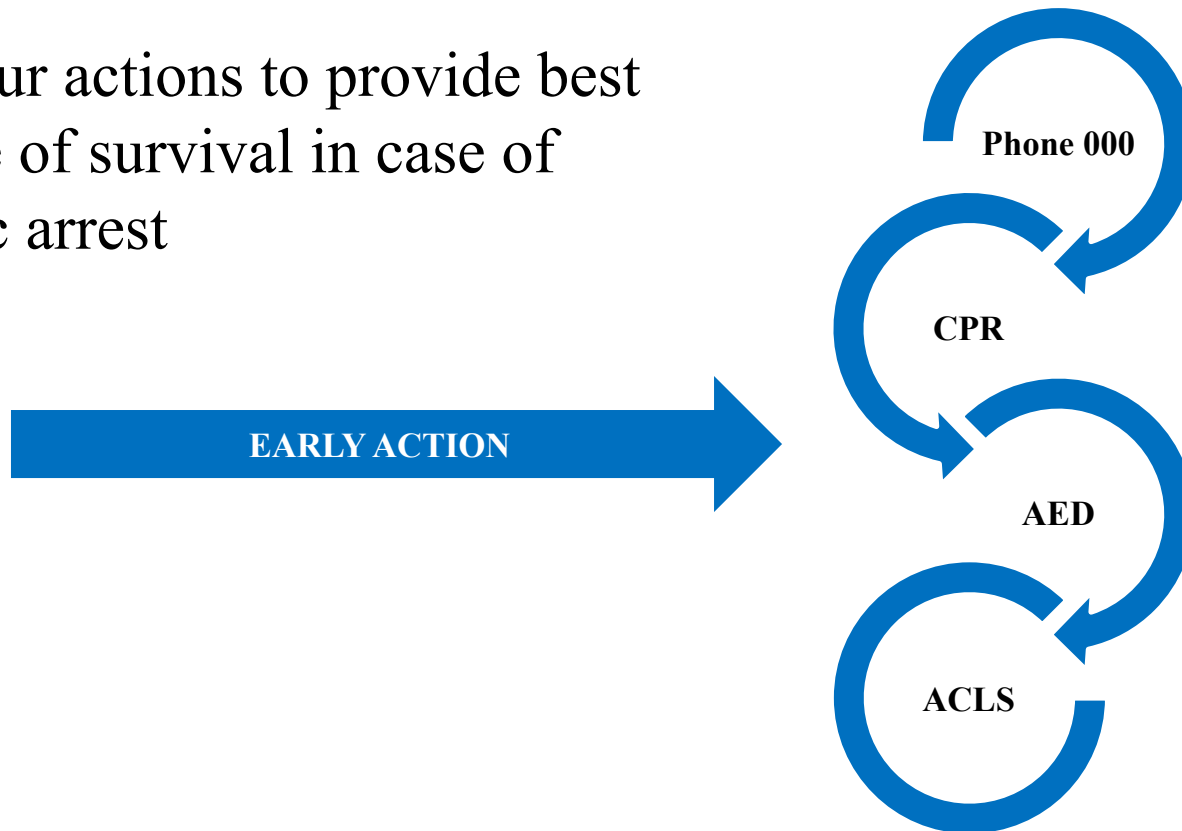
Priorities of first aid

Primary survey:

- D** Danger
- R** Response
- S** Send for help
- A** Airway
- B** Breathing
- C** Compressions
- D** Defibrillation

Chain of survival

The four actions to provide best chance of survival in case of cardiac arrest



DRS ABCD – Danger

- Is the situation dangerous for you or the casualty?
- Do NOT place yourself or others in danger
- Control dangers (where safe to do so)
- If danger is unable to be controlled – move casualty if safe to do so

DRS ABCD – Response

- Try to get a response from the casualty: are they moving, signs of life, conscious/unconscious
- Talk: ask for their name, ask what happened
- Touch: on the cheek, arm or shoulder; give a gentle shake

If no response treat as though unconscious

DRS ABCD – Send for help

- Ring 000 as soon as possible
- Ask a bystander to ring if possible
- Send for equipment if available:
 - First aid kit
 - Defibrillator
 - Blankets
 - Pillows

DRS ABCD – Airways

- Priority must be given to keeping airways open
- Vomit/regurgitation may block airways
- Look in mouth
- Feel for foreign matter (teeth, vomit, food)
- Clear mouth (finger sweep)

DRS ABCD – Airways (cont'd)

- Open airway
 - Head tilt and jaw support for adults
 - Neutral, horizontal position for infants
 - Effect of position change on upper airways



DRS ABCD – Airways (cont'd)

- Vomiting – noisy and active process
- Regurgitation – slow passage of juices from stomach
- Blocked airway
- Inhalation of vomitus/regurgitated matter
- During CPR – place immediately onto side to clear airway
- Unconscious patients always in recovery position

DRS ABCD – Breathing

- Check for normal breathing
- Watch for chest movements up and down
- Listen by putting ear near to face
- Feel by putting hand on lower part of chest
- Breathing normally: progress to secondary survey
- Not breathing normally: commence CPR
- Gasping or abnormal breathing in unresponsive casualty require immediate resuscitation

DRS ABCD – Compressions/CPR

- Place casualty on back
- Locate centre of chest
- Place one hand over the other and interlock fingers



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DRS ABCD – Compressions/CPR (cont'd)

- Compress breastbone rhythmically approximately 1/3 depth of chest using heel of bottom hand
- 30 compressions to two rescue breaths at a rate of 100 compressions per minute



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DRS ABCD – Compressions/CPR (cont'd)

- Compressions for infants: use two fingers only
- Compressions for children: use either one or two hands



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DRS ABCD – Compressions/CPR (cont'd)

Two rescue breaths to 30 compressions

- Mouth to mouth Ensure a good seal
- Mouth to nose Inflate lungs
- Mouth to mask Give two breaths

DRS ABCD – Compressions/CPR (cont'd)

- Single rescuer CPR
- Positions can be changed
- Position changes should be smooth and well coordinated

DRS ABCD – Defibrillation

- If an AED is available, attach and follow the prompts
- Many public places have AEDs: shopping centres, airports, sports venues
- Paediatric AEDs best for children aged 1-8 or modify adult AED pads (chest-back) if adult pads too large
- Defibrillation is not suitable for infants under 1 year old



Duration and cessation of CPR

Once CPR has commenced it should continue until:

- The patient starts breathing
- No longer physically able to continue (ie exhausted)
- Hand over to more qualified person (eg emergency services)

Unconsciousness

- Unroutable unresponsiveness
- Caused by:
 - Blood oxygenation problems
 - Blood circulation problems
 - Metabolic problems (diabetes, overdose)
 - Central nervous system problems (eg head injury, stroke)

Unconsciousness (cont'd)

- Four levels of consciousness:
 - Responds to voice
 - Responds to touch
 - Responds to pain
 - Responds to nothing



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Unconsciousness (cont'd)

- Person who is unresponsive or only minor response must be managed as if unconscious
- Care of airways takes precedence over any injury (including spinal)
- Handle gently: avoid twisting or forward movement of head and spine



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Unconsciousness (cont'd)

- Place into recovery position (on their side) to:
 - Establish clear airway
 - Facilitate drainage
 - Reduce risk of inhaling foreign material, vomit etc
- Recovery position:
 - As close to true lateral position as possible
 - Stable position
 - Able to turn from side to back easily and safely
 - Observation and access to airway

Unconsciousness (cont'd)

RECOVERY POSITION

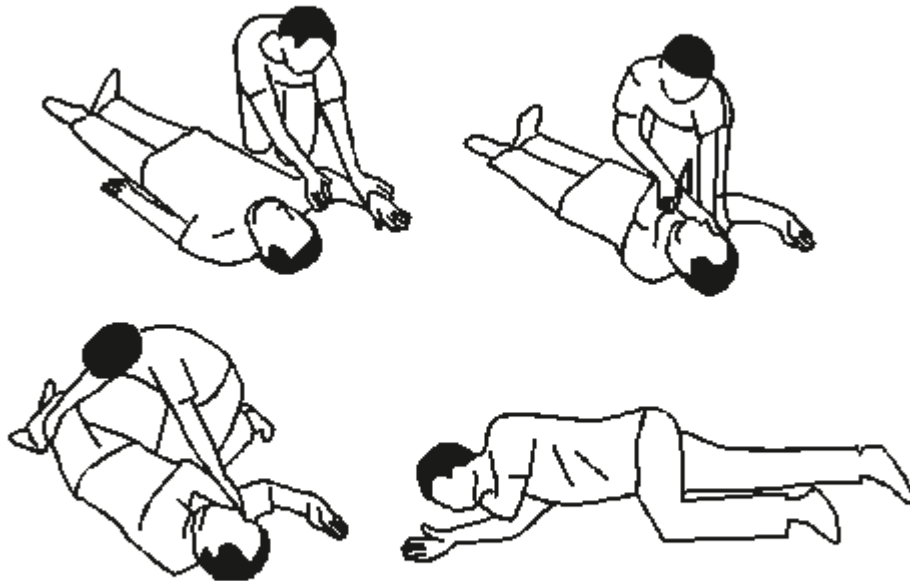


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Secondary survey

- Gain consent
- Verbal and visual assessment
 - Systematic assessment: ‘nose to toes’
- Ask questions, observe and note findings:
 - History
 - What happened
 - Check existing medical conditions (Medic Alert)
 - Visual signs
 - Pain, tingling, numbness

Choking

Partial obstruction: able to cough or cry out:

- Airway partially open
- Encourage person to cough obstruction out
- Do not intervene as may cause full obstruction

Choking (cont'd)

Total obstruction: unable to breathe:

- Airway obstructed
- DRS ABCD
- If conscious:
 - 5 back slaps between shoulder blades
 - 5 chest thrusts
 - Alternate back and chest slaps

Choking: children

Total obstruction: call 000

If conscious:

- Place infant across your knee with head low
- Clear airway with finger
- 5 back slaps (heel of hand in upward motion)
- 5 chest thrusts (same as CPR but slower)

If unconscious commence CPR immediately

Bleeding: internal

- Internal bleeding may be difficult to recognise
 - Bruising
 - Bleeding from body opening
 - Invisible (eg cranial; abdominal)

Bleeding: internal (cont'd)

- Treatment:
 - Response
 - Send for help
 - Verbal survey
 - Lay down and keep still and warm
 - Treat for shock
 - Nothing to eat/drink
 - Reassure and monitor

Bleeding: external

- Arterial – venous – capillary
- Severe bleeding is critical
 - Call 000
 - Infection control
 - Remove foreign bodies if possible
 - Control bleeding with direct pressure over wound
 - Raise injured area
 - Rest and reassure until help arrives

Bleeding: external (cont'd)

- Minor cuts and abrasions: wound care
- Infection control: open wound prone to infection
 - Wash hands: use gloves
 - Avoid coughing over wound
- Clean wounds: do not scrub abrasions
- Apply antiseptic
- Cover with sterile, non-stick dressing



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Dressings, bandages and slings

- Dressings
- Roller bandages
- Triangular bandages
- Uses and how to apply

Cardiac conditions

- Heart attack signs and symptoms
 - Tight, heavy pain or discomfort in chest
 - Shortness of breath
 - Pale, cold sweaty skin

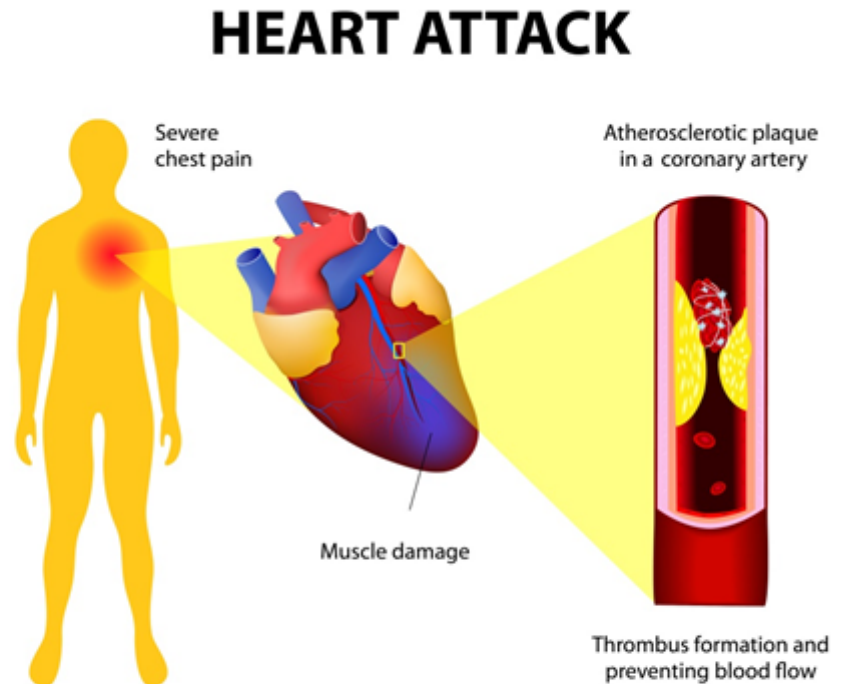


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Cardiac conditions (cont'd)

- Treatment
 - DRS ABCD (call 000)
 - Get the patient to rest and do not leave them
 - Administer oxygen if trained to do so
- Other conditions mimic heart attack symptoms
- If unsure, treat as a heart attack



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Head injuries

- Maintenance of clear airway takes precedence
- All cases of unconsciousness should be assessed by a doctor (even if brief)

Head injuries (cont'd)

- Concussion:
 - Need to be observed closely
 - May result in brain bleed or swelling: cerebral compression
 - May have delayed reaction: seizures up to 48 hours after injury
 - Loss of memory, headache, dizziness, blurred vision, nausea or vomiting, loss of coordination
 - Concussion needs medical attention: cerebral compression requires immediate medical attention

Spinal injuries

- Maintenance of clear airway takes precedence
- Common causes include motor vehicle accidents, diving, falls and sports injuries
- Signs and symptoms:
 - Pain, pins and needles
 - Unable to move arms and/or legs
 - Unable to shrug or bend knees
 - Unable to make a fist

Spinal injuries (cont'd)

- Treatment
 - DRS ABCD
 - Protect airways and minimal movement of the spine
 - Stabilise head, neck and spine



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Abdominal injuries

- Motor car accidents
- Crushing
- Blows (eg football/boxing injury)
- Penetration injury (eg knife or gunshot)

Abdominal injuries (cont'd)

Signs and symptoms:

- Pain
- Nausea/vomiting
- Shock
- Distension/rigidity of stomach wall
- ‘Grunting’ breathing
- Internal bleeding
- Penetration wound site
- Protruding intestines

Abdominal injuries (cont'd)

Response:

- DRS ABCD (call 000)
- Lie patient down in most comfortable position
- Loosen clothing
- Keep warm
- Nothing to eat or drink
- Reassure until medical help arrives
- If intestines are protruding, cover lightly with non-stick dressing

Crush injuries

- Remove crushing force immediately if physically possible
- DRS ABCD – control bleeding – treat for shock
- Crush syndrome
- Trench cave in/mine shaft collapse

Shock

- Lack of effective circulating blood volume
- Signs and symptoms:
 - Cold, pale, clammy, nauseous
 - Rapid weak pulse and rapid shallow breathing
- Treatment:
 - DRS ABCD – Call 000
 - Control bleeding, immobilise fractures, cover wounds
 - Keep warm and monitor until help arrives

Diabetes: 'hypo'

- Inability to regulate blood sugar levels
- Low blood sugar ('hypo'):
 - Too much insulin or by missing a meal
 - Mental confusion; cold, pale, clammy skin; rapid pulse; may lose consciousness

Treatment: DRS ABCD

- If conscious: give honey or sugar drink, or jelly beans
- Seek medical assistance

Diabetes: 'hyper'

- High blood sugar ('hyper'):
 - Missing insulin shot
 - Patient generally able to take own corrective action
- Signs/symptoms:
 - Dry skin
 - Drowsiness, thirst, 'fruity' breath; increased urination
 - Unconsciousness
- Treatment
 - DRS ABCD
 - Patient may recognise symptoms and administer own insulin

Diabetes: 'hyper' (cont'd)

- Do not administer insulin yourself as inappropriate administration may cause death
- Accidentally giving sugar to a diabetic with high sugar levels will not cause further harm

Asthma

- Narrowing and spasm of air passages in the lungs
- Signs and symptoms:
 - Difficulty breathing: coughing, wheezing, difficult to talk
 - Rapid breathing and pulse
 - Pale, sweaty skin (may have blue tinge)
 - Unconsciousness

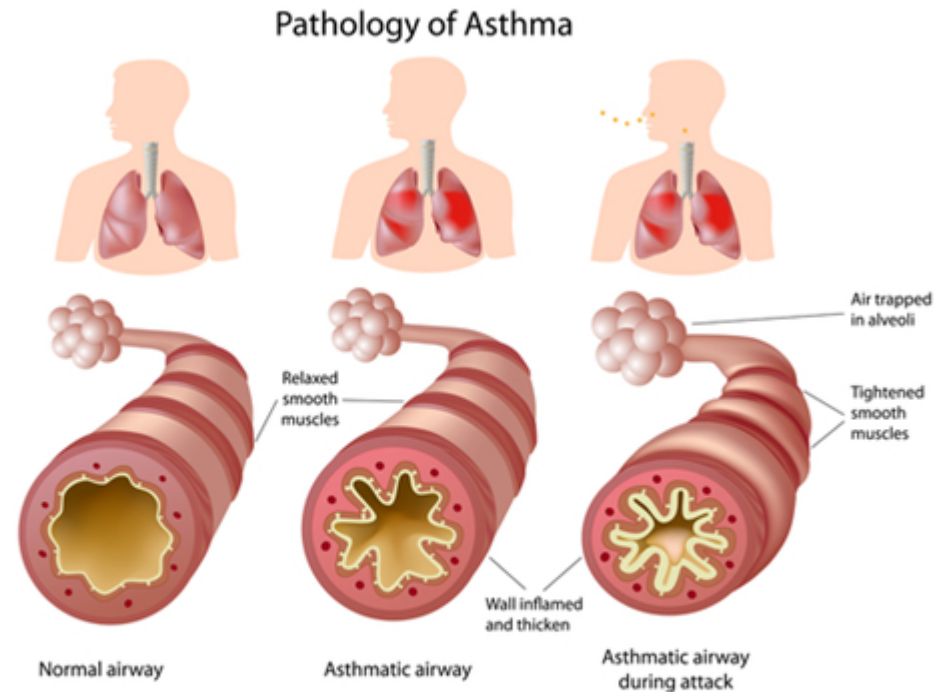


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Asthma (cont'd)

- Treatment

- Follow asthma management plan if available
- DRS ABCD
- Assist into upright seated position
- Assist with asthma medication:
4 x 4 x 4
- Call 000 if no response to medication and continue 4 x 4 x 4

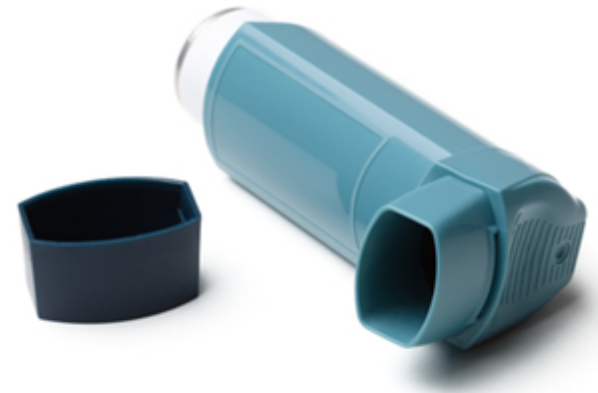


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Anaphylaxis

- Severe, potentially life threatening allergic reaction
- Requires **IMMEDIATE** treatment
- Caused by:
 - Insect bites/stings (especially bees)
 - Many foods (eg peanuts, shellfish, gluten)
 - Medication (eg penicillin)

Anaphylaxis (cont'd)

- Signs/symptoms:
 - History, skin rash/itching, hives,
 - Cold, pale and clammy skin
 - Rapid weak pulse
 - Swelling especially to face, tongue, hands and feet
 - Unconsciousness

Anaphylaxis (cont'd)

- Treatment:
 - DRS ABCD (call 000)
 - Follow anaphylaxis management plan if available
 - Administer adrenalin into thigh with auto-injector
 - Call ambulance
 - Make patient comfortable
 - Administer further adrenalin if no response within five minutes



Seizures and epilepsy

- Electrical disturbance in the brain
- Epilepsy; drug overdose; blow to head; meningitis; high fever
- Signs and symptoms:
 - Rigid, jerking muscle spasm,
 - May lose control of bowel and bladder
 - Unconsciousness
 - Loss of memory/fatigue

Seizures and epilepsy (cont'd)

- Treatment
 - DRS ABCD
 - Protect from injury
 - Place in recovery position following fit and check ABCs

Febrile convulsions

- High fever in child under four years old
- Signs and symptoms:
 - Jerking muscle spasm
 - Hot sweaty skin: flushed (becoming blue around the lips)
 - Stiff body: may arch back and head
 - Projectile vomiting

Febrile convulsions (cont'd)

- Treatment:
 - Protect from danger
 - Turn on to side
 - Minimal clothing – lightly cover eg with sheet
 - Seek medical advice
- Febrile convulsions are distressing but rarely dangerous
- Try not to panic

Stroke

Ruptured blood vessel in the brain

Blockage of blood supply to the brain: causes death or damage to brain tissue

F Facial weakness: one side may droop, ask to smile

A Arm weakness: can they lift both arms

S Speech: may be slurred

T Time: get help ASAP

Envenomation

Pressure immobilisation method:

- Useful for some bites and stings:
 - Australian venomous snakes, funnel web spiders, blue ringed octopus; cone fish
- Not recommended for others:
 - Red back spider; stone fish, box jellyfish

Envenomation (cont'd)

- If you are unsure if a person has been bitten or stung: treat as though they have been.
- If a child says they have been bitten by a snake, believe them!
- If in doubt: call the National Poisons Information Centre

Poison

- Swallowed, injected, absorbed (through skin), inhaled
- DRS ABCD: do not induce vomiting
- Collect vomit or remains of poison to send with casualty to hospital for identification
- For corrosive poisoning: give sips of water, milk or ice cream
- Poisons information line 131 126

Poison (cont'd)

- Check Safety Data sheet or HAZCHEM sign for information
- Do not enter a confined space
- Look for danger: do not become a casualty yourself!

Burns

- Thermal
- Electrical
- Chemical
- Friction

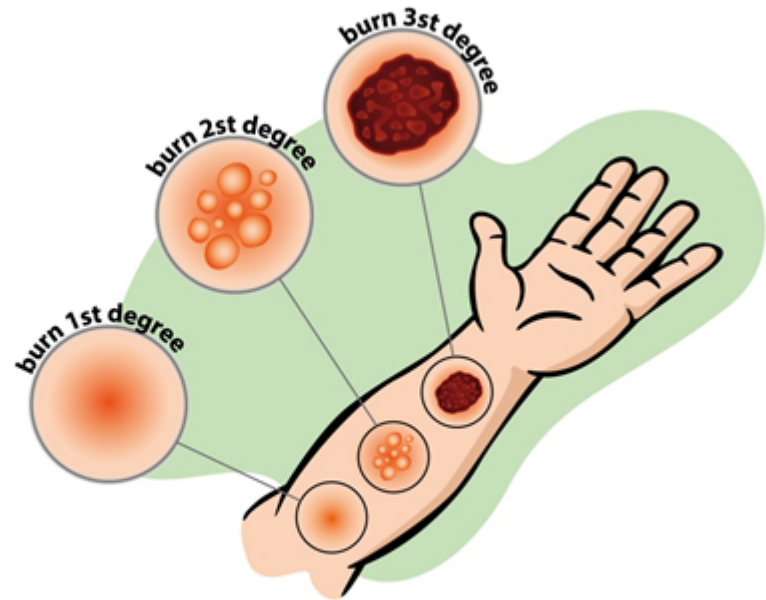


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Burns (cont'd)

Serious burns:

- Any deep burns
- Any superficial burn involving 9% or more body area
- Burns to airway, hands, feet, armpits, genitalia
- Inhalation burn

Burn area assessment: rule of 9s

Body area (Adult)	Percentage
Head and neck	9%
Arm	9%
Front of chest	9%
Upper half of leg	9%
Back of chest	9%
Lower half of leg	9%
Abdomen	9%
Genitalia	1%
Lower half of back	9%

Thermal burns

- Stop, drop, roll
- DRS ABCD
- Irrigate with cool water for up to 20 minutes
- Do not remove anything sticking to skin
- Remove constrictions if possible (ie jewellery)
- Cover with sterile, non-stick dressing
- Elevate burned area
- Do not apply creams or break blisters

Electrical burns

Switch off electrical source before assisting casualty!

- Stay away from live wires
- May be entry and exit burns
- May appear superficial on the surface but deep burns underneath
- Treatment:
 - DRS ABCD
 - Irrigate with cool water for up to 20 minutes
 - Cover with sterile, non-stick dressing
 - Seek medical assistance

Chemical burns

- Safety Data Sheets
- HAZCHEM/Dangerous Goods signage
- Irrigate affected area and manage as for thermal burns
- Do not remove bitumen from skin unless obstructing airways
- If removing clothing etc: use PPE

Friction burns

- Abrasion by skin rubbing against surface: eg rope burn, carpet burn, chafing
- Risk of infection
- Treatment:
 - Gently clean burn
 - Apply antiseptic cream
 - Cover with sterile, non-stick dressing

Fractures

- Closed fracture: skin is unbroken
- Open fracture: bone breaks through skin, risk of infection
- Complicated fracture: damage to other structures eg veins, arteries, nerves, internal organs

Fractures (cont'd)

- Treatment:
 - Stop bleeding
 - Stop movement
 - Immobilise joints: place and support limb in most comfortable place before bandaging
 - Check circulation
 - Do not attempt to realign bone
 - Elevate



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Dislocations

- Occurs when a joint is forced out of place
- Severe pain and loss of function
- Do not attempt to relocate the dislocation
- Immobilise limb in most comfortable position
- Check for circulation

Soft tissue injuries: RICE

- Bruises, sprains and strains
 - R** Rest the patient
 - I** Ice compress
 - C** Compression bandage
 - E** Elevate
- If in doubt, treat as a fracture

Drowning

- Do not put yourself in danger
- DRS ABCD
- Remove person from water if safe to do so
- Place in recovery position: casualty may vomit
- Casualties must seek medical assistance due to risk of lung infection

Environmental impact: hypothermia

Hypothermia: exposure to cold

- Normal body temperature: 37C °
- Shivering: 35C°–35C°
- Uncontrollable shivering: 32C°–35C°
- Shivering stops: 30C°–32C °: danger sign

Environmental impact: hypothermia (cont'd)

- Handle gently and keep horizontal
- Remove from cold environment asap
- Remove wet clothes if sufficient insulation available
- Cover with blankets and insulate below
- Give warm drinks (no alcohol)
- Assess for frost bite
- Do not rub extremities to warm

Environmental impact: hyperthermia

Hyperthermia: exposure to heat

- Stage 1: heat cramps
- Stage 2: heat exhaustion:
 - Severe cramping in legs and abdomen
 - Faintness and dizziness
 - Move to cool shady spot
 - Give sips of water
 - Sponge with cool water
 - Seek medical assistance

Environmental impact: hyperthermia (cont'd)

- Stage 3: heat stroke (up to 50% mortality):
 - Hot flushed skin
 - Strong bounding pulse
 - May lose consciousness
 - DRS ABCD
 - Move to cool position and remove all unnecessary clothing
 - Douse with water and cover with wet sheet/icepacks
 - Fan to increase air flow

Ear injuries

- Foreign objects; blow to ear; ruptured eardrum; illness
- Signs and symptoms:
 - Bleeding, bruising, swelling and redness
 - Dizziness. fever
 - Earache, pain or loss of hearing
- Allow drainage of blood or fluid from the ear
- Do not try to clean the inside of the ear canal
- Do not put liquid in the ear
- Do not attempt to remove foreign object

Eye injuries

- Trauma
- Burns
- Smoke
- Foreign bodies:
minor and major



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Eye injuries (cont'd)

- Gentle, careful treatment
- Ice pack for pain and swelling
- Padding to control bleeding
- Flush to remove foreign bodies: do not attempt to remove embedded object

Reporting requirements

- Verbal and written reports
- Accurate, clear and factual
- Hand over to Health Care Professionals
- Verbal advice to supervisor
- Formal incident reporting

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