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UNZA - SCHOOL OF MEDICINE, CLINICAL SKILLS LAB

FIRST AID GUIDE

Burns

- Definition of burn. An injury to the skin or underlying tissues, primarily caused by heat, radiation, electricity, friction, chemicals or extreme cold.
- Causes of burns (etiological classification)
- Types of burns (degree/depth)

First Aid Management of Burns: ***dependent on the degree/depth of the burn*

A. Initial Management:

(Aim – stop burning source, secure safety, and perform primary survey)

- **Ensure self – safety.**
- **Stop the burning** – remove source of burn, keep casualty away from source.
- **Open flame**, STOP, DROP AND ROLL. Smother with blanket or coat (non-adhesive, clean covering).
- If **electrical source**, do not attempt to touch casualty immediately. Try to turn off the electrical source, if not possible, try move source away from yourself and casualty using a non-conducting material e.g. cardboard, plastic or wood.
- Perform **primary survey (ABC)**
- Determine the depth of the burn

What NOT TO DO – apply greasy ointments, butter, Vaseline, Toothpaste.

B. First Aid for different degrees of burns

1st degree (Superficial burns):

How to recognize? Damage to **epidermis** of skin. Symptoms – **redness**, pain, swelling.

First Aid:

- Cold running water for 10 to 45 min
- Aloe / Moisturizing lotion
- Analgesia (ibuprofen, diclofenac, paracetamol as required)

2nd degree (partial thickness burns)

How to recognize? Damage to epidermis and part of dermis. Symptoms – **Blisters**, swelling, weeping fluids and severe pain.

First Aid:

- Cold running water for 10 to 45min.
- Wet pack application.
- Do not break (pop) blisters.
- Analgesia (ibuprofen, diclofenac, paracetamol as required)

3rd degree (complete thickness burns)

How to recognize? Damage to all layers of skin, as well as underlying fat, fascia and muscle tissue. Symptoms – Appear grey-white, red or **black**, initially **not associated with any swelling or pain**.

First Aid:

- Primary survey (ABC) – particularly important for 3rd degree burns.
- Not necessary need to apply water. Do not apply external ointments to burn site to **avoid risk of contamination and thus, risk of infection**.
- **Apply a dry non-adhesive clean dressing (ideally a fire blanket)** but do not tighten it, keep it loosely attached. Alternatively to fire blankets include woollen coats or a **clean plastic** to cover the wound.

Seek immediate medical attention.

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Wounds and Fractures

- **Define** fracture
- **Types** of fracture – closed (simple) vs open (compound).
- How to recognize? History of trauma, pain, swelling, deformity loss of function of injured limb, open fractures protruding through skin.

First aid management:

- ABC and call for help
- Control haemorrhage (Pressure application, elevation, and tourniquet). Rule out shock.
- If open fracture, **keep** sterile dressing over the wound.
- Immobilize fractured area – splint application (how to improvise-sticks) and sling application (improvise with a large cloth).
- Apply Ice to injured area (to relieve pain and swelling)
- Analgesia (ibuprofen, diclofenac, paracetamol as required)
- Advise to get tetanus shot within 72hrs.
- For other soft tissue injuries – RICE; Rest, Ice, Compress and Elevate.

Seek medical attention **immediately**.

N.B. - Do not try to reduce the fracture or dislocation on your own.

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Choking

- Definition of Choking – partial or complete airway obstruction due to a foreign object.
- Signs of choking – **sudden onset panicking** after eating, **clutching at throat**, change of colour (**bluish discoloration** of lips and/or fingers), **inability to speak**, or **unusual breathing sounds** e.g. Wheeze.

First Aid Management of Choking:

- Encourage **coughing** and **DO NOT** give water or anything to swallow.

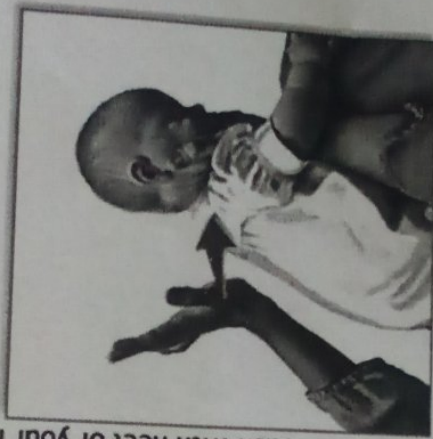
If ineffective:

- **Back Blows** - Lean forward, support chest, back blows between shoulder blades x 5
- If fails, perform **Heimlich Manoeuvre (abdominal thrust)**
Action designed to expel an obstructing object from the throat:
 - Place a locked fists on the abdomen (midline below sternum)
 - Forcefully thrust inwards and upwards to dislodge the object x5
- If no response after 1 round of 5 back blows and abdominal thrusting, **call for medical help** and continue blows and thrusting.
- Demonstrate how to perform on self
 - Place a locked fist on the abdomen (midline below sternum)
 - Lean over a chair or a counter top and thrust your fist upwards and inwards against the edge of the chair/counter top.



Place fist above navel while grasping fist with other hand.

Leaning over a chair or counter-top, drive your fist towards yourself with an upward thrust.



Place the infant stomach-down across your forearm and give five quick, forceful blows on the infant's back with heel of your hand

➤ Demonstrate/explain how to perform on an infant/child

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Seizures

- Define seizure and Types - Generalized vs Focal Seizures.
- **How to recognize a generalized seizure** – involuntary jerky muscle movements, stiff muscles, loss of consciousness, rolled eyes, arching of back, soiling, tongue biting, drooling.
- **How to recognize a focal seizure** - lip smacking, prolonged gaze, chewing motion, drooling, plucking at clothes, muscle contraction of one part/side of body, paraesthesia.

First Aid Management of Seizures

- Safety of environment, patient (**protect head** by placing pillow or securing safely). **Shout for help**. Do not slap/strain or try to wake patient or place finger in mouth.
- ➤ Time seizure (if > 5 min ==> emergency, call help).
- Once seizure aborts ==> do primary survey (ABC)
- **Place in recovery position**
- Send for medical attention.

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Basic Life Support

- Explain importance of basic adult life support. Demonstrate procedure. (Follow guide below)
- Explain Factors affecting effectiveness (early primary survey and initiation of CPR, minimal breaks between compressions, effective compressions etc.)

Basic Life Support Guide:

- Ensure **Safety** of self and casualty. Calls out to the casualty, **stimulates** and **Shouts** for help
- **Airway assessment** for obstruction. **Airway manoeuvres**; chin lift, head tilt (If none cervical spine injury), Jaw thrust (in Cervical spine injuries).
 - Suctions. (Inserts Guedel (oropharyngeal airway) or naso-pharyngeal airway, puts on oxygen) ???????
- **Breathing and Circulation assessment.** Looks/Feels/Listens; Puts their ear to the patients mouth to feel/listen for breath sounds, while looking for chest rise and palpate for the carotid pulse.
 - If not breathing, gives 5 rescue breathes with bag-valve mask (BVM), if no response, continues to ventilate patient with BVM.
 - If pulse <60/min or absent, starts **cardiac compressions: rescue breathes at ratio of 30:2 adults** (15:2 in children). Rate of cardiac compressions at 100/min.
 - Land marks for cardiac compressions; lower half of the sternum, 5cm depth of compressions
- Continue CPR until patient wakes up or help arrives to move onto advanced life support.

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Primary Survey (Assessment) and Recovery Position.

Primary Survey:

- SSS – Safety, Shout (for help) and Stimulate
- ABC – Airway, Breathing and Circulation
 - Explain how to assess airway and perform airway manoeuvres (jaw thrust, chin lift and facelift).
 - Explain look, feel and listen assessment for breathing and circulation.

Recovery Position Placement:

- Place in supine position
- Place Left arm at right angle to body, with elbow bent and palm facing upwards
- Bring right arm across the chest, and place under the left cheek
- Flex right knee and hip until the sole of the foot is flat on the floor ➤ Roll patient onto their left side, maintain head tilt and chin lift.
Explain benefits of the recovery position.

Keep the Airway Clear



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Carrying a trauma patient

➤ **Demonstrate 1 man carry (Pack-strap carry)**

- Place both the victim's arms over your shoulders.
- Cross the victim's arms, grasping the victim's opposite wrist.
- Pull the arms close to your chest.
- Squat slightly and drive your hips into the victim while bending slightly at the waist.
- Balance the load on your hips and support the victim with your leg

PACK-STRAP CARRY



➤ **Demonstrate 2 man carry (2 - handed seat)**

- Pick up the victim by having both rescuers squat down on either side of the victim.
- Reach under the victim's shoulders and under their knees.
- Grasp the other rescuer's wrists.
- From the squat, with good lifting technique, stand. □ Walk in the direction that the victim is facing.



➤ **Demonstrate 3 or more man carry**

Three or more rescuers get on both sides of the victim. The strongest member is on the side with the fewest rescuers.

- Reach under the victim and grasp one wrist on the opposite rescuer.

- The rescuers on the ends will only be able to grasp one wrist on the opposite rescuer.
- The rescuers with only one wrist grasped will use their free hands to support the victim's head and feet/legs.
- The rescuers will then squat and lift the victim on the command of the person nearest the head, remembering to use proper lifting techniques.



➤ 6 man carry

