

Medical Emergencies

Learning Outcomes

- You will be able to:
 - Recognise Emergencies and get help fast
 - Recognise Chest Pain, Diabetic and Epilepsy and provide first aid promptly

Medical Emergencies

- Fever
- Flu
- Headache
- Hiccups
- Extreme Numbness
- Sore Throat
- Heart Attack
- Stroke
- Hypoglycemia
- Asphyxia
- Epilepsy
- Poisoning
- Unconscious

Medical Emergencies

- When you see:
 - Great Pain
 - Difficulty in Breathing
 - Unresponsive
- Call for ambulance

KECEMASAN
999
Satu Negara, Satu Nombor



Heart Attack

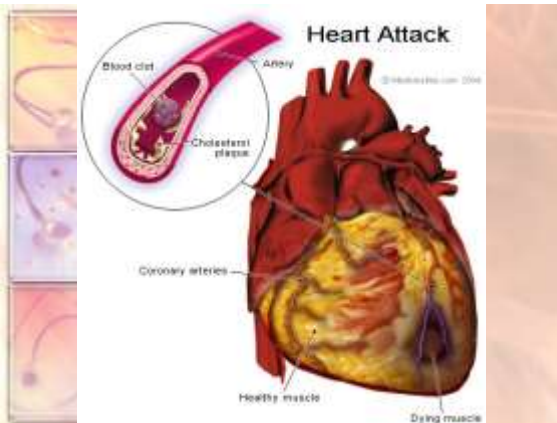
- Recognition
 - Chest pain
 - Breathlessness
 - Faintness and giddiness
 - Sense of doom
 - Blueness at the lips
 - Rapid, weak or irregular pulse
 - Collapse without warning



Treat all chest pain as heart attack until proven wise

Heart Attack

- Causes
 - Commonly occurs when the blood supply to part of the heart muscles is obstructed
 - The effect depends on how much of the heart muscle is affected.



Treatment

- Make comfortable
- Put in sitting position
- Activate the EMS and check vital signs
- Prepare to resuscitate
- Assist to take medicine



If you are trained...



If you are trained...



Angina Pectoris

- Chest constriction and pain
 - Insufficient blood to the heart muscle
 - Forces the casualty to rest.



Angina Pectoris

- Recognition
 - Gripping central chest pain
 - Spreading to the jaw and left arm
 - Shortness of breath
 - Weakness, sudden and extreme
 - Feeling of anxiety
- Different from Heart Attack



Diabetes

- Body fail to regulate blood sugar
- Insulin produced by pancreas
- Problems are:
 - Too much sugar
 - Too little sugar



Hyperglycemia

- High blood sugar
- May cause unconsciousness
- Requires urgent care



Causes: Too much food, too little insulin or diabetes pills, illness, or stress.

Onset: Often starts slowly. May lead to a medical emergency if not treated.

SYMPTOMS:

| | | |
|---------------------------|--------------|-------------------------|
| NEED TO URINATE OFTEN | DRY SKIN | EXTREME THIRST |
| BLURRY VISION | DROWSY | SLOW-HEALING WOUNDS |

WHAT CAN YOU DO?

| | |
|-------------------------|-----------------------------------|
| CHECK BLOOD GLUCOSE | CALL YOUR HEALTHCARE PROVIDER |
|-------------------------|-----------------------------------|

Treatment

- If unconscious – recovery position
- Monitor and record vital signs
 - Level of response
 - Pulse
 - Breathing
 - RBS
- Send to hospital



Hypoglycemia

- Low blood sugar
- Often occur over a few days
- May cause unconsciousness
- May happen on Diabetics
 - Insulin overdose
 - Last oral intake
- Requires urgent care
 - Rapidly affects the brain function

Cause: Too little food or skip a meal; too much insulin or diabetes pills more active than usual

Onset: Often sudden; may pass out if untreated.

SYMPTOMS:

| | | | |
|---------------|---------------------|----------|-----------|
| | | | |
| SWEATING | DIZZY | ANXIOUS | HUNGRY |
| | | | |
| BLURRY VISION | WEAKNESS OR FATIGUE | HEADACHE | IRRITABLE |

WHAT CAN YOU DO?

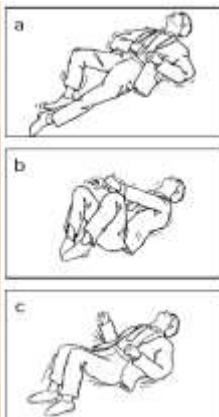
| | | |
|-------|-------|-------|
| | | |
| CHECK | TREAT | CHECK |

Treatment

- If unconscious – recovery position
- Provide sugar
 - Level of response
 - Pulse
 - Breathing
 - RBS
- Send to hospital



Epilepsy



Epilepsy

- Recurrent or major disturbance of the brain activity
- Can be sudden and dramatic
- Casualty may have a brief warning period.

Epilepsy

- Falls unconscious, often let out a cry
- Becomes rigid, arching his back
- Breathing may cease
- Convulsive movement
- Loss control of bowel.
- Return normal within a few minutes
- Maybe dazed or behave strangely

Treatment

- Help him falling
- Loosen tight clothing
- Protect his safety
- When convulsion ceased, place in recovery position
- **DO NOT:**
 - Transport unless dangerous
 - Restrain
 - Put anything in his mouth

Question



Poisoning

Burns and Scalds



Learning Outcomes

- You will be able to:
 - Differentiate Types of Burns
 - Recognise severity of burn injury
 - Describe safety precautions when provide care to burn victims
 - Provide care to burn victims



Burns are result from dry extreme temperature

Scalds are caused by wet heat from hot liquids and vapors



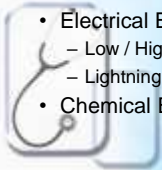
Assessing a Burn

- Burned skin are highly susceptible to infections
- Extent of burn is the total affected area
- Depth of burn is the damage done to the skin
- Facial involvement
 - Airway potency



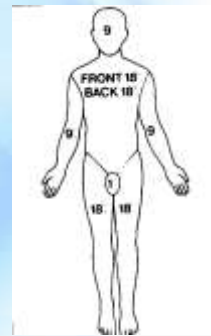
Types of Burn

- Dry Burn
- Cold Injury
- Friction
- Radiation
- Scald
- Electrical Burn
 - Low / High voltage
 - Lightning
- Chemical Burn



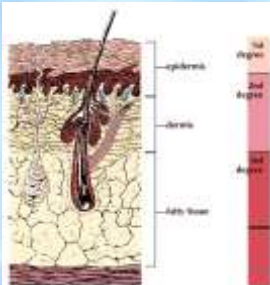
Extent of Burn

- Greater area affected by burn means greater loss of body fluid
- Rule of Nines

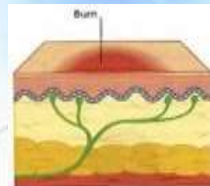


Depths of Burn

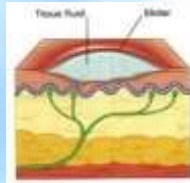
- Determines how bad the damage



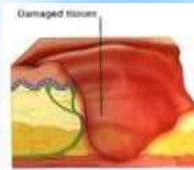
Superficial Burn



Partial-thickness Burn



Full-thickness Burn



General Treatment

STOP
COOL
DRESS



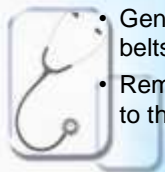
Thermal Burn

- Caused by hot object
- Recognition:
 - Pain
 - Sign of shock



Treatment

- Stop the burning
- Plenty of water to relieve pain
- Treat associated injuries
- Minimize the risk of infection
- Gently remove the rings, watches, belts before the tissue begin to swell
- Remove burned clothing unless sticks to the body



- Cover with sterile dressing or cling wrap
- Check vital signs
- Treat for shock
- Arrange urgently to hospital



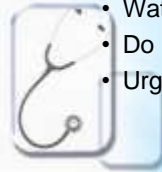
Chemical Burn

- Chemical reaction
- Evidence of chemical in the area
- Safety



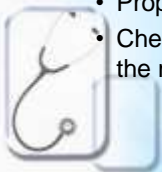
Treatment

- To make the area safe
- Remove casualty to a safe place if necessary
- Run with water for at least 20 minutes
- Watch out the contaminated water
- Do not attempt to neutralise
- Urgent removal to hospital



Also make sure...

- Inform the relevant authority
 - Bomba
 - Jabatan Alam Sekitar
- Proper care of contaminated clothing
- Check airway, vital signs and notify the medical staff about the incident



Electrical Burn

- High Voltage vs Low Voltage
- Point of entry and exit
- Shock
- Risk of "internal burn"



Treatment

- Make sure safety
- Treat the burn and shock
- Urgent removal to hospital



Caution

- Do not approach a high voltage tower / source until you are officially informed



Question



Poisoning



Learning Outcomes

- You will be able to:
 - Recognise poisons and its danger
 - Recognise the damage done by poisoning
 - Provide first aid to poisoning incidents



What is Poison?

A substance which, if taken into the body in sufficient quantity, may cause temporary or permanent damage



How Poison Enters Body

- Mouth: swallow or consumed
- Nose: inhaled poisonous gas
- Skin:
 - Absorbed: eyes or touch
 - Injection: drugs, sting, or bite



Swallowed

- Vomiting
- Pain or burning sensation
- Empty container as evidence
- History of indigestion/exposure
- Unconsciousness



Inhaled

- Headache
- Noisy and distress breathing
- Confusion
- Unconscious
- Cardiac Arrest



General Treatment

- Your Safety
- Obtain information
- Minimise damage
- Resuscitate if necessary
- Urgent removal to hospital

Swallowed

- Identify substance
- Give frequent sips of cold milk or water
- Do not induce vomiting
- Avoid mouth-to-mouth if EAR required

Inhaled

- Safety
- Get casualty to a well ventilate place
- Do not interrupt the any area affected if it irritates



Question



Injuries to Eye, Ear, Nose

Injuries to Eyes, Ears, Nose



 **St John**
Eye Hospital, Jerusalem

Learning Outcomes

- You will be able to:
 - Recognise the urgency of eye injury
 - Provide care to ears and nose injured by foreign body
 - Provide care to Epistaxis

Foreign Body in the Eye

- Blurred vision
- Pain or discomfort
- Redness and watering of the eye
- Eyelids screwed up in spasm



Any injuries to the Eye is an Emergency

Treatment

- Do not rub the eyes
- Gently separate eyelid with finger and thumb
- Pour clean water from a glass or sterile eyewash
- Otherwise seek medical help



Foreign Body in the Ear

- Unable to hear properly
- Pain and discomfort
- Swelling may occur



Treatment

- Do not try to remove
- Support / immobilise the foreign body if possible
- Removal to hospital



Treatment – Insect in Ear

- Flood the ear with tepid water to float the insect out.
- Removal to hospital.

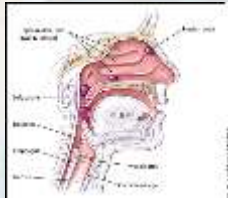


Foreign Body in the Nose

- Difficulty or noisy breathing
- Swelling of the nose
- Smelly or blood stained discharge, indicating that an object may have been lodged for a while.

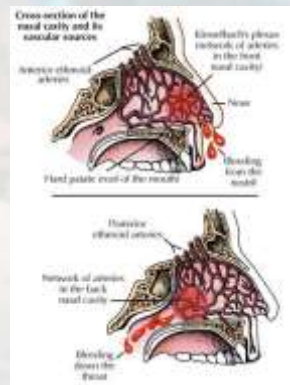
Treatment

- Advise to breath through the mouth
- Not to disturb the nose
- Not to try to remove the object
- Removal to hospital



Epistaxis

- Nose bleed
- Tiny blood vessels inside the nostril are ruptured
- May also occur as a result of high blood pressure



Treatment

- Sit down with head tilt forward
- To breath through the mouth
- Pinch the soft part of the nose



Epistaxis (con't)

- If bleeding stopped – clean with water
- To recheck every 10 minutes
- Removal to hospital if bleeding not stopped after 30minutes

Question



Burns & Scald

Environmental Emergencies



Learning Outcomes

- You will be able to:
 - Recognise environmental effects to our body
 - Recognise the importance of normal body temperature
 - Provide first aid to environmental injuries



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Hyperthermia

- Source of heat
- Normal body temperature
- Mechanism of sweat



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Heat Exhaustion

- Loss of salt and water
- Humidity

Figure 1: Mechanisms of heat loss from the body



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Recognition

- Headache, dizziness and confusion
- Loss of appetite and nausea
- Pale, clammy skin
- Cramps
- Rapid, weakening pulse and breathing



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Treatment

- Rest at cool place
- Plenty of water + salt
- If deteriorate, recovery position
- Monitor and record vital signs
- Be prepared to resuscitate
- Removal to hospital



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Heat Stroke

- Failure of the 'thermostat'
- Body become over heated
- Can follows heat exhaustion when sweating cease



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Recognition

- Headache, dizziness
- Restlessness and confusion
- Hot, flushed and dry skin
- Rapid deterioration in the level of response
- Full bounding pulse
- Body temperature above 40°C (104°F)



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Treatment

- Move to a cool place
- Remove clothing
- Water and fan
- Monitor and record vital signs



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| BODY TEMPERATURES | | www.hypothermia.org | |
|--|--|---------------------|--|
| 37.0°C NORMAL | | | |
| 36.0°C COOL | Shiver, skin pale, lips and extremities cool, but not blue. Shivering stops, mental confusion, but still awake. Blood pressure normal, but slow. Heart rate normal. | | |
| 35.0°C SHIVERING | | | |
| 34.0°C BODY CORE TEMPERATURE BELOW 35°C = HYPOTHERMIA - HOSPITAL | NO EXERCISE, WASHED, DRY, WARM, NO EXTERNAL WARMTH (except to chest, back, or hands) allowed. Warm sweet drink and 2000kcal. Monitor vitals. Do not expose air. Do not let patient eat or drink. Do not let patient sleep. Monitor vitals. Monitor all activity. Do not let patient sleep. | | |
| 33.0°C UNLAWY | Warm sweet drink and 2000kcal. Monitor vitals. Do not expose air. Do not let patient eat or drink. Do not let patient sleep. Monitor vitals. Monitor all activity. Do not let patient sleep. | | |
| 32.0°C CONSCIOUS | Warm sweet drink and 2000kcal. Monitor vitals. Do not expose air. Do not let patient eat or drink. Do not let patient sleep. Monitor vitals. Monitor all activity. Do not let patient sleep. | | |
| 31.0°C MUSCLE STIFFNESS | Monitor vitals. Monitor all activity. Do not let patient sleep. | | |
| 30.0°C SHIVERING STOPS, COLLAPSE | WARMING TO HOSPITAL URGENT! | | |
| 29.0°C UNLAWY | Warming by mouth. Cover vitals. Monitor vitals. Do not expose air. Do not let patient eat or drink. Do not let patient sleep. Monitor vitals. Monitor all activity. Do not let patient sleep. | | |
| 28.0°C UNLAWY | Warming by mouth. Cover vitals. Monitor vitals. Do not expose air. Do not let patient eat or drink. Do not let patient sleep. Monitor vitals. Monitor all activity. Do not let patient sleep. | | |
| 27.0°C UNLAWY | Warming by mouth. Cover vitals. Monitor vitals. Do not expose air. Do not let patient eat or drink. Do not let patient sleep. Monitor vitals. Monitor all activity. Do not let patient sleep. | | |



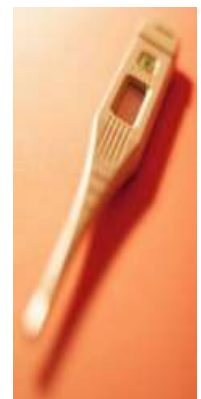
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Hypothermia

- Develop over time
- Infants, older people and those who are thin and frail are the worse affected
- It can also be caused by prolonged exposure to cold out of doors.



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Mother Nature

- Moving air has a much greater cooling effect than still air
- Death from immersion in water may be caused by hypothermia not drowning
- Wet clothes vs Dry clothes



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Recognition

- Shivering, and cold, pale, skin
- Apathy, disorientation or irrational
- Impaired consciousness
- Slow and shallow breathing
- Slow and weakening pulse. In extreme cases, the heart may stop



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Treatment

- Prevent from losing heat
- Re-warm the casualty slowly
- Replace wet clothing
- Blanket
- Give warm drinks, soup or high energy foods such as chocolate
- Regularly monitor and record the casualty's vital signs



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If temperature went up slowly, bring it down slowly



If temperature went down slowly, bring it up slowly



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Question



Lifting & Handling

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ST. JOHN AMBULANCE OF MALAYSIA

1st IN FIRST AID TRAINING

Lifting and Transportation

Reference: SJA First Aid Manual 9th Edition Revised



LIFTING AND HANDLING

- Why Must Transport?
 - For **safety** purposes
 - Comfort and well-being of the casualty
 - To seek medical aid



LIFTING AND HANDLING

- Correct lifting techniques and caring for your own back:
 - Stand as **close** to casualty as possible
 - Bend your knees, **back straight but not rigid**
 - Use your **legs to provide the power**



LIFTING AND HANDLING

- Principles of lifting / Transportation
 - Resources- Helpers required
 - Space
 - Distance
 - Condition of the casualty
 - Harm- which technique to use to prevent it
 - Effective- easy and fast, choice of transport.



LIFTING & HANDLING

- Correct ways to lifting



LIFTING AND HANDLING



MOVING CASUALTY ALONE

- Cradle Method
- Human crutch



MOVING CASUALTY ALONE

- Pick-a-back



- Drag method



MOVING CASUALTY WITH HELPER

- 4-Handed seat



- 3-Handed seat



MOVING CASUALTY WITH HELPER

- 2-Handed seat



1. Support facing each other sit either side of the casualty. Cross arms behind her back and grasp her waistband.

2. Place your other hands under the casualty's buttocks and grasp each other's wrists. Bring your hands across up to the middle of the casualty's thighs.



- Fore & Aft



1. Sit the casualty on and put her arms across her chest.

2. Kneel behind the casualty slide your arms under her armpits and firmly grasp her wrists.



3. Ask your partner to squat beside the casualty and pass his arms under her



MOVING CASUALTY WITH HELPER

- Carrying Chair Method



STRETCHER



CARRYING A STRETCHER



LOADING ON STRETCHER BY BLANKET LIFT

BLANKET LIFT

DO NOT lift a casualty when you suspect she or he has a fractured spine. If an immediate shift in the casualty's condition suggests the danger of movement, use the "log roll" technique (see page 245).



1 Roll a blanket lengthwise to half its width, and place it alongside the casualty. Turn the casualty on to her side and place the roll against her back.



2 Turn the casualty back over the blanket and wind one to two other rolls, long enough to fit, against her back to hold the casualty down flat on it.



3 Tightly roll the extra blanket on both sides to snug the casualty's body. The rolls act as handles for the rescuers.

4 Two rescuers squat on either side of the casualty, at her trunk and legs, and grasp the rolls firmly.

5 On command, all four rescuers lift the casualty by bending back and weightlifting their knees.



THANK YOU

