

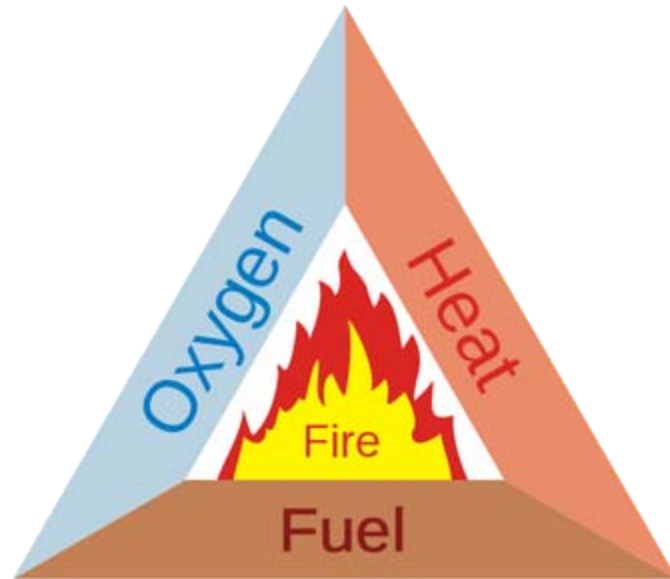
SAFETY MEASURES

Amrozia Shaheen

OUTLINE

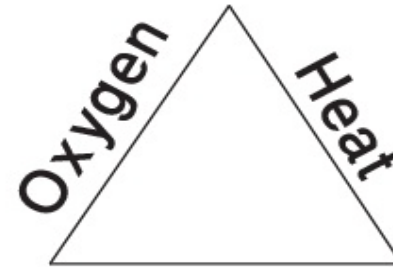
- ◉ Fire and its classification.
- ◉ Fire extinguisher's classification.
- ◉ How to use fire extinguisher?
- ◉ Life threatening injuries and their treatment.
- ◉ Safety items in our lab.

TRIANGLE OF FIRE

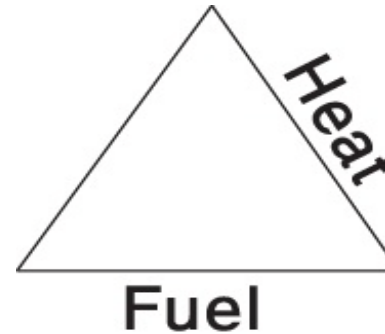


PRINCIPLES OF EXTINGUISHING

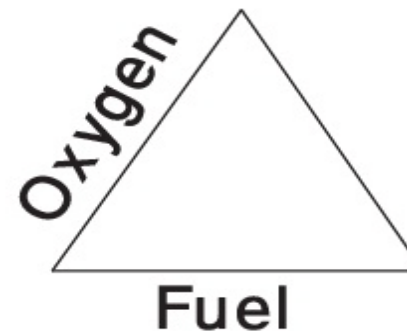
- ◉ Starvation



- ◉ Smothering



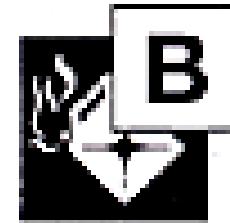
- ◉ Cooling



CLASSIFICATIONS OF FIRE

- ◉ **Class A:**

Combustible materials
like Wood, paper, cloths, etc.



- ◉ **Class B:** Flammable liquids
like oil and paint, etc.



- ◉ **Class C:** Gases like sui gas, CNG.

- ◉ **Class D:** combustibles metals
like magnesium and sodium.



- ◉ **Class E:** Electrical equipment
such as wiring, motors, data processing
panels and appliances.

FIRE EXTINGUISHERS

- ◉ Water extinguisher:
colour code: Signal red.
used for: A class fire.
- ◉ Foam extinguisher:
colour code: Red with a cream panel.
used for: A, B class fires.
- ◉ Dry chemical extinguisher:
colour code: Red with a blue panel.
used for: A, B, C and E class fires.



FIRE EXTINGUISHERS

- ◉ CO₂ extinguisher:
colour code: Red with black panel.
used for: B class fire.
- ◉ Halon extinguisher:
colour code: Red with green panel.
used for: B and C class fire.

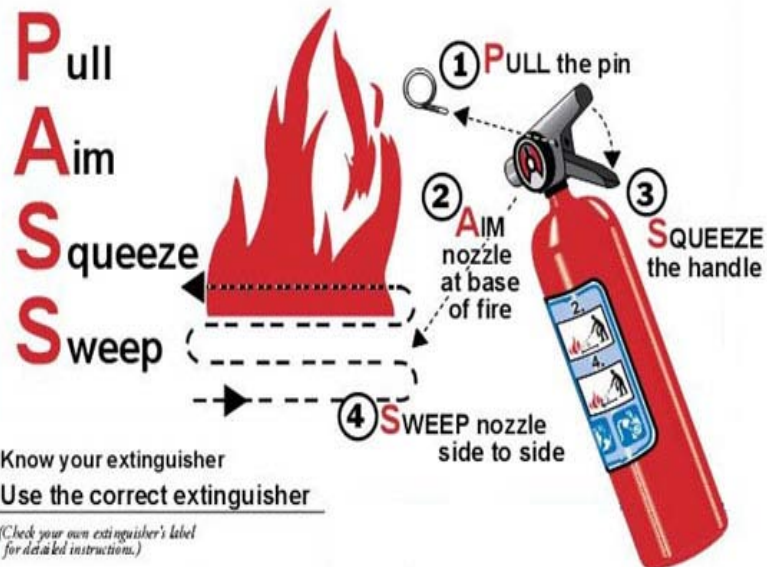


HOW TO USE A FIRE EXTINGUISHER?

P A S S

1. Pull the pin.
2. Aim the nozzle at fire.
3. Squeeze the lever.
4. Sweep side to side.

To operate an extinguisher:



WHAT TO DO IN CASE OF FIRE?

- ◉ Raise the fire alarm or shout fire fire.
- ◉ Call 1122 or 16.
- ◉ Switch off the main supplies such as electric and gas.
- ◉ Use appropriate fire extinguisher.
- ◉ Evacuate to the assembly area using emergence exit.
- ◉ Don't use lift, use stairs.

WHAT TO DO IN CASE OF FIRE?

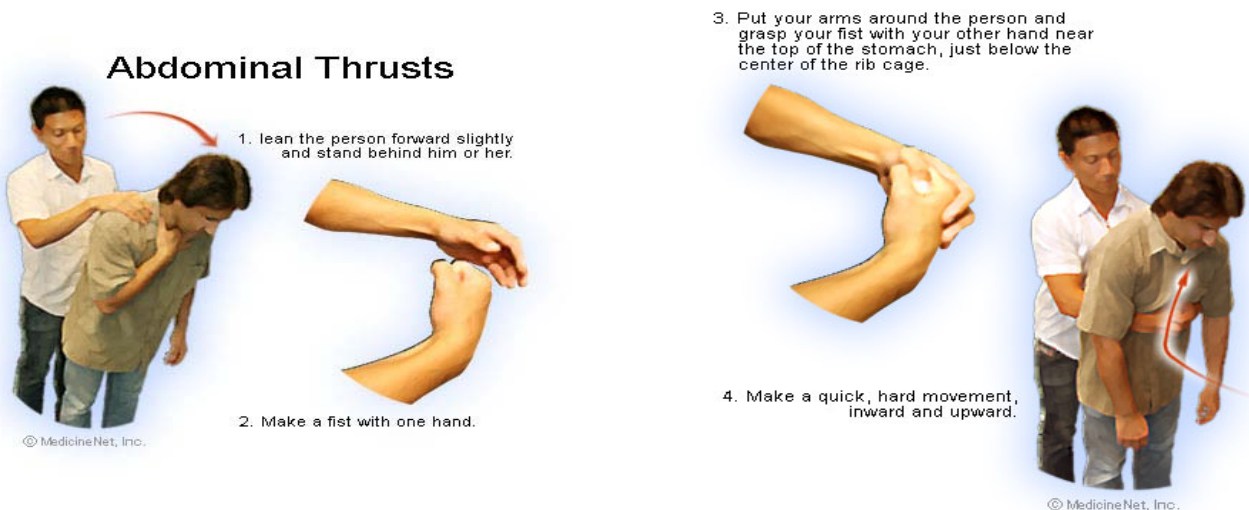


LIFE THREATENING INJURIES

- ◉ Airway obstruction.
- ◉ Excessive bleeding.
- ◉ Shock.

AIRWAY OBSTRUCTION

- Airway obstruction is a partial or complete blockage of the breathing tubes to the lungs. It can be due to foreign bodies (food, ice, toys, dentures, vomits and liquids), allergic reactions, infections.
- Responsive person:



AIRWAY OBSTRUCTION

- ◉ Unconscious person:
- ◉ Call the EMS.
- ◉ Head tilt chin lift.
- ◉ Remove the foreign body.
- ◉ Check for signs of life LLF (Look Listen Feel).



Head tilt-chin lift
(ดันหน้าผาก-เชยคาง)



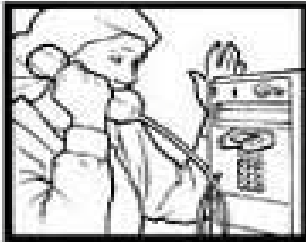
Look, listen and
feel for breathing
and pulse

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AIRWAY OBSTRUCTION

- ◉ Breathing is absent. Give 2 rescue breaths.
- ◉ Check for a pulse.
- ◉ If no breathing, no pulse, then do CPR (Cardio Pulmonary Resuscitation).
- ◉ Cardiopulmonary resuscitation (CPR) is a first-aid technique used to keep victims of cardiopulmonary arrest alive and to prevent brain damage while more advanced medical help is on the way. CPR has two goals:
 - ◉ keep blood flowing throughout the body.
 - ◉ keep air flowing in and out of the lungs.

STEPS OF CPR



**STEP 1
CALL 911**



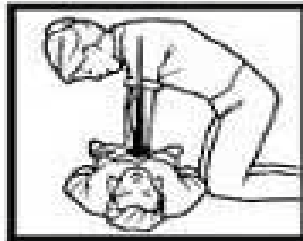
**STEP 2
TILT HEAD,
LIFT CHIN,
CHECK
BREATHING**



**STEP 3
GIVE TWO
BREATHS**



**STEP 4
POSITION
HANDS IN THE
CENTER OF
THE CHEST**



**STEP 5
FIRMLY
PUSH DOWN
TWO INCHES
ON THE CHEST
30 TIMES**

**CONTINUE WITH TWO BREATHS
AND 30 PUMPS UNTIL HELP ARRIVES**

EXCESSIVE BLEEDING

- ◉ How to stop excessive bleeding?
- ◉ Call the emergency service.
- ◉ Use latex gloves to prevent from the infection or disease.
- ◉ Elevate the affected area up from the heart level.
- ◉ Apply direct pressure on the affected area.
- ◉ Put bandage on the affected area.
- ◉ Shift the victim to the hospital.

EXCESSIVE BLEEDING



SHOCK

- ◉ Shock is a life-threatening condition that occurs when the circulatory system fails and, as a result, deprives the vital organs of oxygen. This is usually due to severe blood loss, but it can also happen following severe burns, severe vomiting, a heart attack, bacterial infection or severe allergic reaction.
- ◉ **Signs and symptoms:**
- ◉ Pale or blue-colored lips, skin.
- ◉ rapid, shallow breathing .
- ◉ weakness and dizziness .
- ◉ feeling sick and possibly vomiting .
- ◉ thirst .
- ◉ Loss of consciousness.

SHOCK

- ◉ First aid treatment of the shock:
- ◉ Call for EMS.
- ◉ Treat any obvious injuries.
- ◉ Lay the victim down if their injuries allow it, and raise and support his legs about 12 inches.
- ◉ Use a coat or blanket to keep victim warm, but not smothered.
- ◉ Do not give him anything to eat or drink.
- ◉ Give lots of comfort and reassurance.
- ◉ Monitor the victim continuously. If he stops breathing, start CPR (cardio-pulmonary resuscitation).

ELECTRIC SHOCK

- ◉ Makes you fall down
- ◉ Muscle contraction
- ◉ Dehydration
- ◉ Burns
- ◉ Fractures
- ◉ Clotting of blood
- ◉ Tissue death (narcosis)
- ◉ Respiratory/Heart/Kidney failure

ELECTRIC SHOCK

- ◉ What to do:
- ◉ Call emergency medical service.
- ◉ Do not attempt to move the victim from current source.
- ◉ Switch off the current source.
- ◉ Move the source using a wooden stick.
- ◉ Attend the victim .
- ◉ Check for AB.
- ◉ No breathing, start CPR.
- ◉ If breathing, do a physical examination.
- ◉ Treat for minor burns.
- ◉ Excessive burns may require hospitalization/surgery.
- ◉ Supportive care must be provided and shift him to the hospital.

BURNS

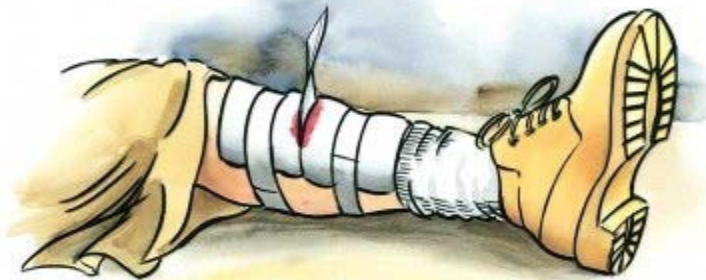
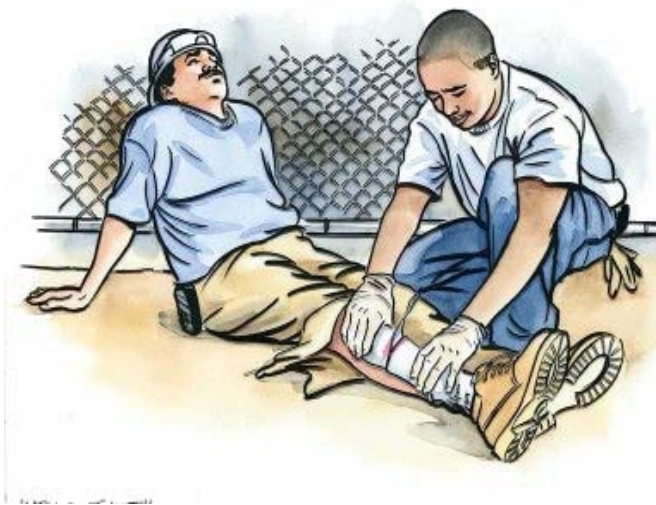
- ◉ Burns is a type of skin injury caused by heat, electricity and chemical.
- ◉ Severity of the burn:
- ◉ Burning agent's temperature.
- ◉ Time period for which the victim was exposed.
- ◉ Area of the body burnt.
- ◉ Size of the affected area.
- ◉ Depth of the burn.

BURNS

- ◉ Pre hospital treatment of the burn:
- ◉ Stop the burning process.
- ◉ Remove the victim from the source.
- ◉ Cool the burn by clean water.
- ◉ Cover the burn loosely with dry sterile dressing.
- ◉ Don't use ice as it causes vessel constriction.
- ◉ don't apply ointment or other remedies.
- ◉ Don't remove shreds of tissue, break blisters.

TREATING IMPAIRED OBJECTS

- ◉ Immobilize the affected part.
- ◉ Don't move or the impaled object.
- ◉ Control bleeding .
- ◉ Clean and dress wound.
- ◉ Wrap with bandage.



TREATING FRACTURE

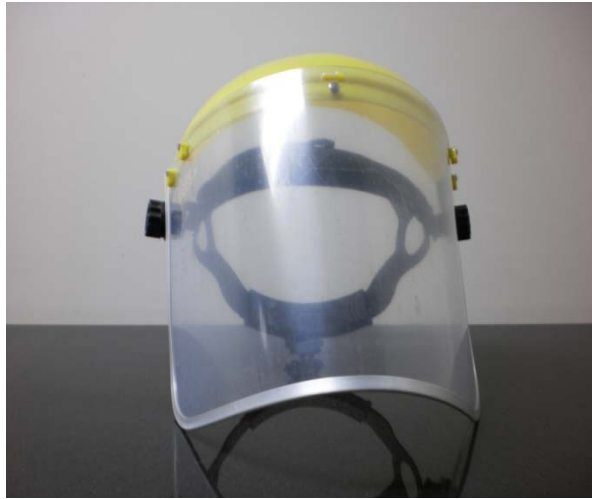
- ◉ Immobilize the injury and joints.
- ◉ Support the injured part.
- ◉ splint injury in the position you find.
- ◉ Don't realign bones.
- ◉ Check colour, warmth and sensation.



SAFETY ITEMS IN THE LAB



SAFETY ITEMS IN OUR LAB



SAFETY ITEMS IN THE LAB



THANK YOU