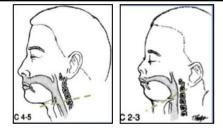
Unit9: First aid for infants and children Lesson1: Anatomy and physiology (structure & function)

Differences in anatomy and physiology between infants, children and adults: Best of luck: Maitha Taleb Saeed

	Infants & children	Adults
Respiratory tract مجرى الننفس	Undeveloped	Developed
اللسان Tongue	Large	Small
الممر Nasal passage الأنفي	Small Large	
اللوز Tonsils	Large W	smallW.alm
مجرى الهواء Airway	Shorter	Longer
سرعةRespiratory rate التنفس	Faster	Slower
سرعة Heart rate نبضات القلب	Faster	Slower
العظام Bones	Soft & developing	Developed & strong
لسان المزمار Epiglottis	Larger	Shorter
البلعوم Pharynx	Smaller	Larger
الحنجرة Larynx	Small	Big
حجم الرئة Lung size	Small	Big



SAFET FIRST

Lesson2: Assessment of an infant or child for first aid How to act during emergency? DR ABC: Danger (is it safe?/ check for hazards) + take your precautions (first aid

kit + wear PPE "Personal Protective Equipment" such as gloves)

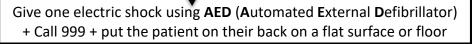
Response (tap the shoulder of the causality and ask: Are you OK?)

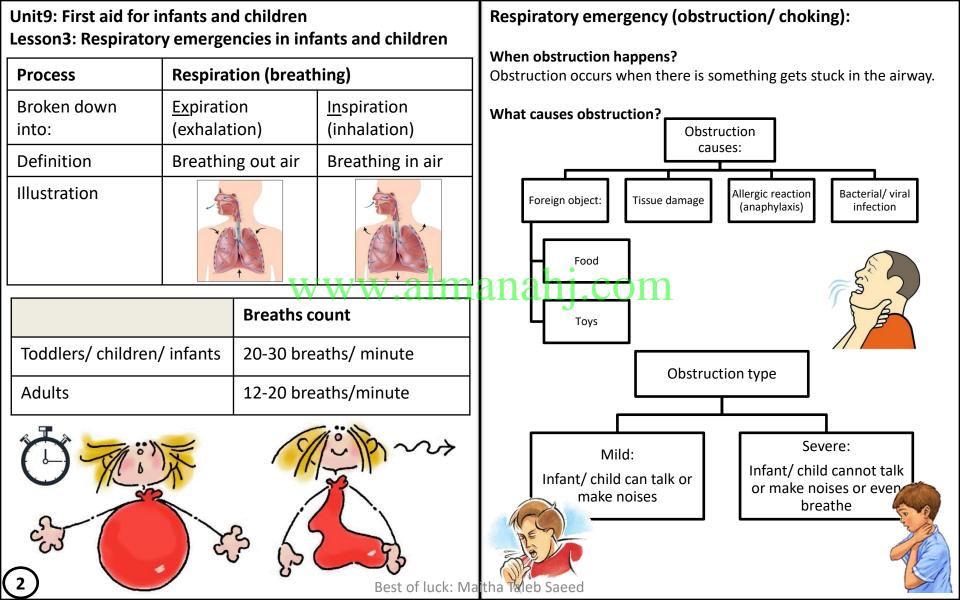
Airway (head-tilt chin-lift maneuver/ jaw thrust maneuver

Breathing (check chest movement/look, feel, listen for breathing)

Circulation (check heart pulse/ injuries or bleeding)

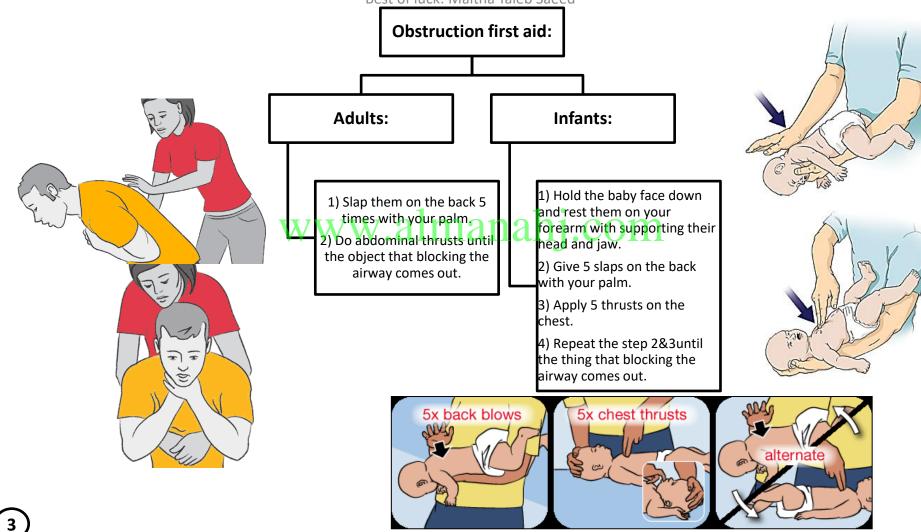
No breathing / Only gasps / No heart beats

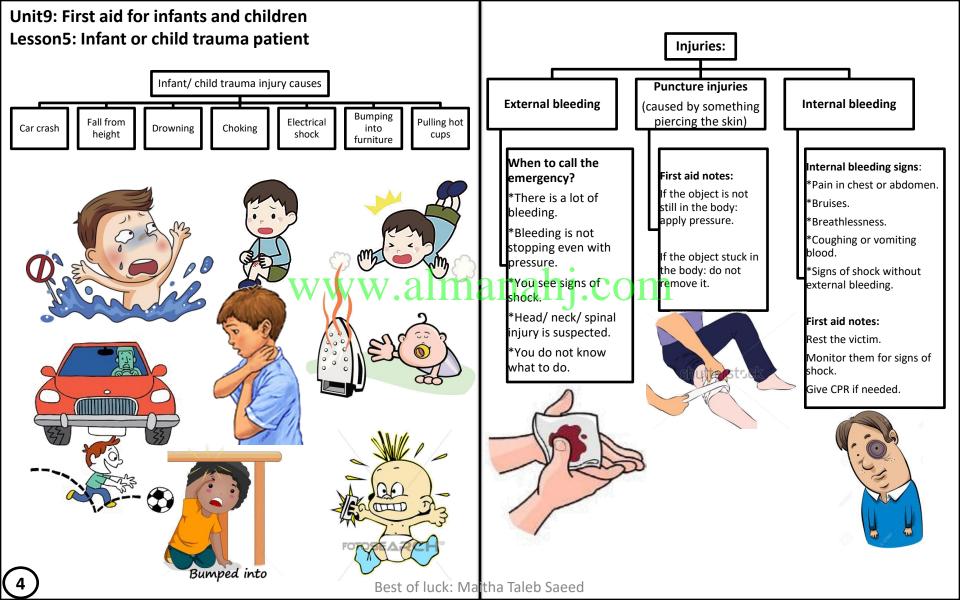




Unit9: First aid for infants and children

Lesson3: Respiratory emergencies in infants and children





Unit9: First aid for infants and children Lesson6: Attending to the feelings of the patient and their family

You should take care of the victim: (care attitude) "How?"

- 1) Reassure the patient (keep positive)
- 2) Keep the patient informed about what is happening
- 3) Show concern (ask if they want to inform family / friends)
- 4) Have interpersonal skills (talk to them)
- 5) Stay professional (ask about how the accident happened)
- 6) Maintain privacy (tell the emergency staff only)
- 7) Personal space (keep curious people away)
- 8) Make the patient more comfortable





What are the benefits of caring attitude?

- 1) Help the patient to feel comfortable & reassured
- 2) Help the patient relax
- 3) Encourage communication
- 4) Keep patient & family calm & reassured
- 5) Build self-confidence & good reputation for the caregiver

Unit10: First aid for infants and children Lesson1: What is a mass casualty incident?

What is a Mass Casualty Incident (MCI)?

MCI: any incident where the number of casualties is greater than the resources available.

RESOURCES

Which one could be considered a MCI?

- **2**0 people with minor injuries.
- **5** people with a life threatening injuries.

What are the bases we should consider to classify an incident as a mass casualty incident?

- ✓ Available resources.
- ✓ Number of injured people.
- ✓ How serious their injuries are.



Imagine that there is a MCI and here are the victims.... Which one of them you are going to help first?







Deciding who is most urgently in need of medical care and transportation to the hospital is called mass casualty **triage**

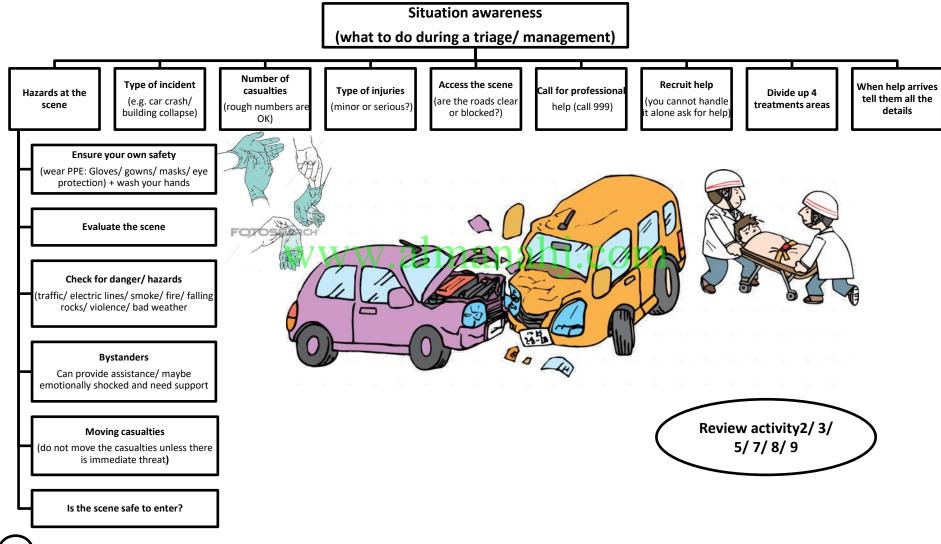
Triage: the process of deciding the order of treatment for casualties.

Remember: before entering the scene check for hazards "danger".



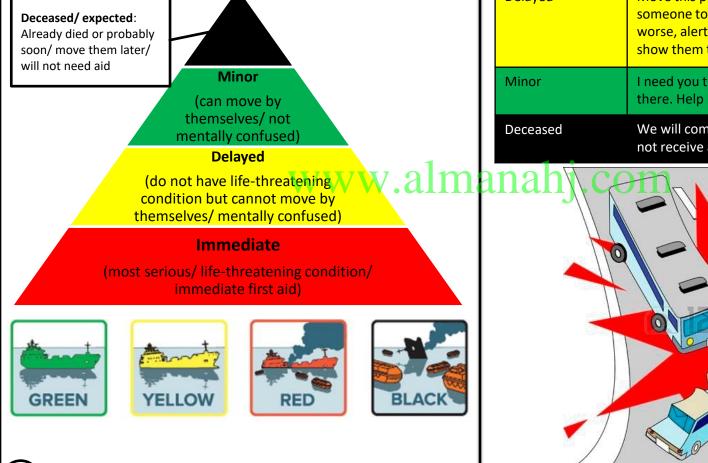
Best of luck: Matha Taleb Saeed

VICTIMS



Unit10: First aid for infants and children Lesson3: What is a mass casualty incident?

Levels of treatment areas/ triage color coding



Triage color coding	Leadership command			
Immediate	Take this person to the red zone. They need immediate first aid.			
Delayed	Move this person to the yellow zone. Get someone to stay with them. If they become worse, alert a first aider. If they are unconscious, show them the correct recovery position			
Minor	I need you to move to our green zone and wait there. Help is on the way and will be here soon			
Deceased	We will come back to move this person. They will not receive aid			
noht oone				

Triage Category	Typical injuries	
RED	Airway/Breathing Uncontrolled/Severe Bleeding Severe burns	
	Signs of Shock Open chest/abdominal wounds Burns with no airway problems	
YELLOW ^{alm}	Major/multiple bone or joint injuries Back injuries with or without spinal cord injuries	
GREEN	Minor fractures Minor soft tissue injuries	
BLACK	Obvious Death Obvious nonsurvivable injury Respiratory Arrest	
9	Cardiac Arrest	

Which one of 2 scenes is considered a Mass Casualty Incident (MCI)?

Type of incident:

How many casualties?

What type of injuries can you see? (classify them according to the triage color code)

Access to the scene:

10

Type of incident:

How many casualties?

D

What type of injuries can you see? (classify them according to the triage color code)

А

Access to the scene:



Which one of 2 scenes is considered a Mass Casualty Incident (MCI)?

inananj.com

Type of i How ma

How many casualties? 6 What type of injuries can you see? (classify them according to the triage color code)

No signs of injuries just emotionally disturbed and frightened.

Access to the scene: the scene is on fire

Type of incident: building fire

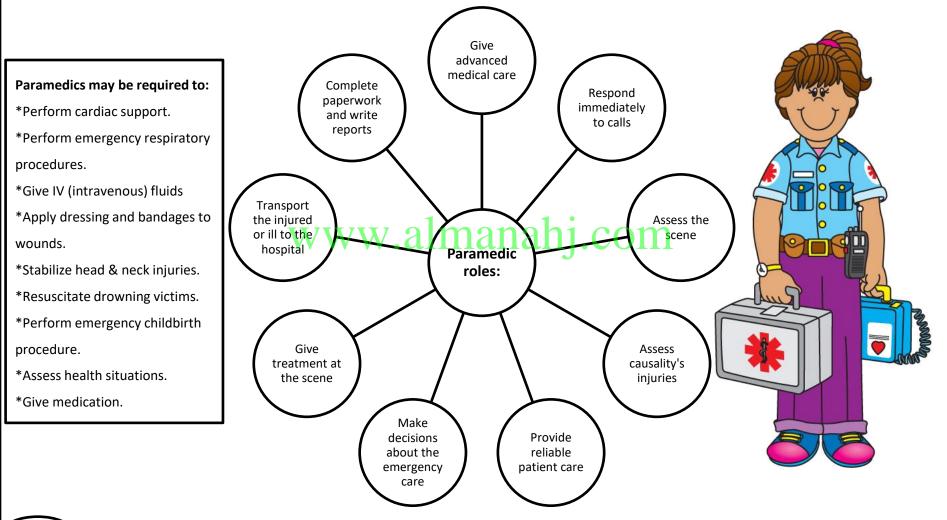
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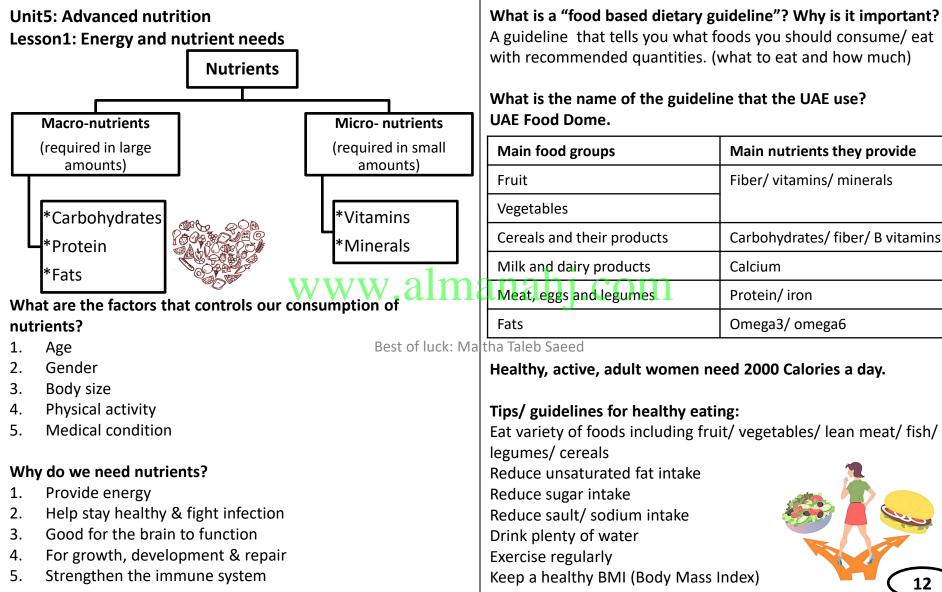
Type of incident: car crash How many casualties? 4 What type of injuries can you see? (classify them according to the triage color code) B is already dead (black area "deceased") A/C/D need immediate help (red area) Access to the scene: ---





Unit10: First aid for infants and children Lesson1: The responsibilities of a paramedic



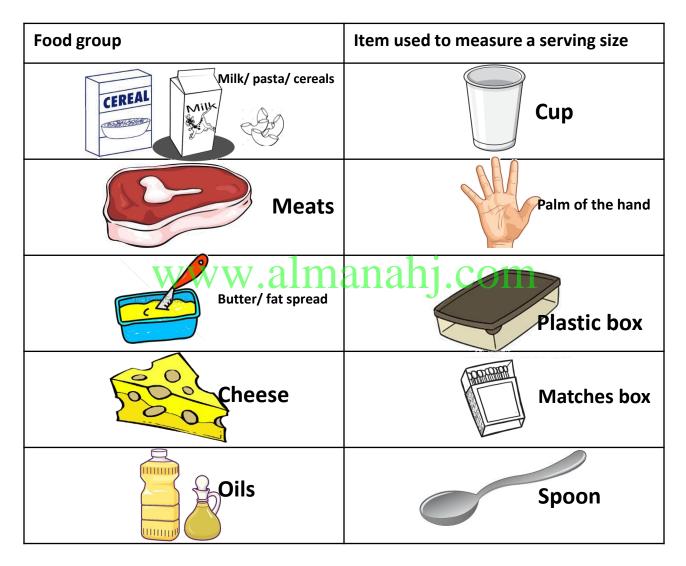


What is a "food based dietary guideline"? Why is it important? A guideline that tells you what foods you should consume/ eat with recommended quantities. (what to eat and how much)

What is the name of the guideline that the UAE use?

Main food groups	Main nutrients they provide	
Fruit	Fiber/ vitamins/ minerals	
Vegetables		
Cereals and their products	Carbohydrates/ fiber/ B vitamins	
Milk and dairy products	Calcium	
Meat, eggs and legumes	Protein/ iron	
Fats	Omega3/ omega6	

12



FOOD DOME

DIETARY GUIDELINES FOR ARAB COUNTRIES



Practice medium activity like walking 30 minutes most day

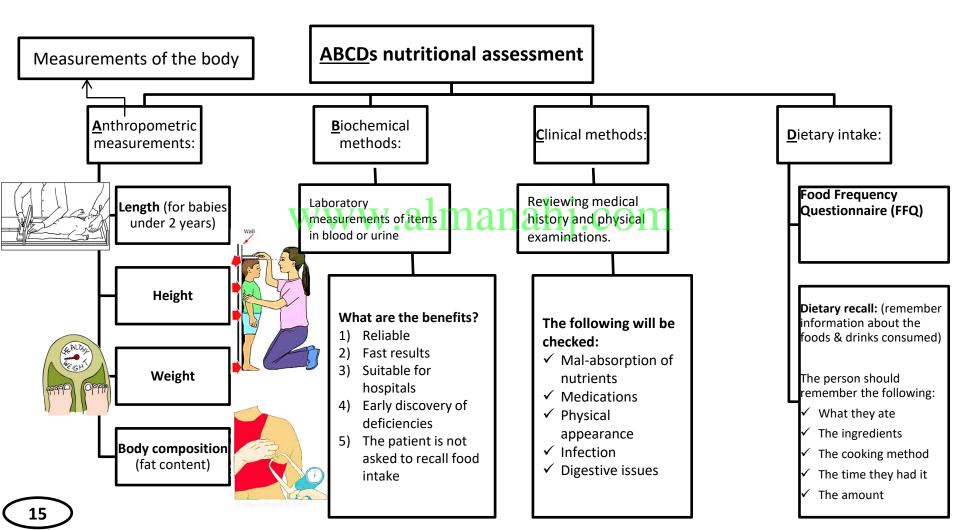
Meat, eggs and legumes	Vegetables	Cereals and their products	Fruit	Milk and dairy products
Choose low fat or lean meat Consume legumes at least 3 times a week Consume more fish as possible	Eat more dark green vegetables like spinach and orange vegetables like carrots	 Eat at least half of cereals of whole grain Eat more of fortified cereals and their products 	Eat variety of fruit Choose fruit during their seasons Drink fresh fruit juice	Consume low fat milk and their products consume milk fortified with vitamin D
		Suggested daily servings		
2-4 servings/ day	3-5 servings/ day	6-11 servings/ day	2-4 servings/ day	2-3 servings/ day
One serving =	One serving =	One serving =	One serving =	One serving =
50-80g meat, chicken or fish, ½ cup cooked legumes, one egg	l cup raw vegetables, ¾ cup vegetables juice	1 slice, ¼ Arabic bread, 30g cornflakes, ½ cup cooked cereals	I medium piece of fruit, ¾ cup fruit juice	I cup milk, 45g cheese, I tbs cream cheese

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Unit5: Advanced nutrition Lesson2: Nutritional assessment techniques

Best of luck: Maitha Taleb Saeed

How to assess nutritional status?



Unit5: Advanced nutrition Lesson3: Calculate body mass index (BMI)

$$BMI = \frac{weight (kg)}{height^2(m^2)}$$

Accurate weight measurement:

- 1) Make sure the scale is calibrated before measuring the weight.
- 2) Do not weight after having a big meal or doing strenuous exercises.
- 3) Make sure that your not wearing heavy clothes or shoes.
- 4) Morning is the best time to measure weight.
- 5) Take the weight in kilograms (Kg).

Accurate height measurement:

Take off your shoes.

Stand straight with good posture.

Keep your heels against the wall and feet together. Look straight.

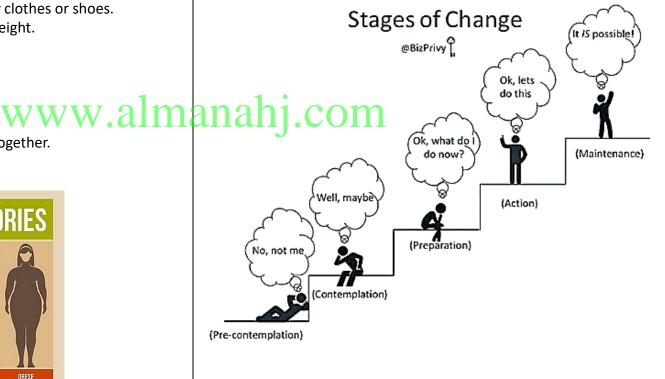
Take the height in meters (m).



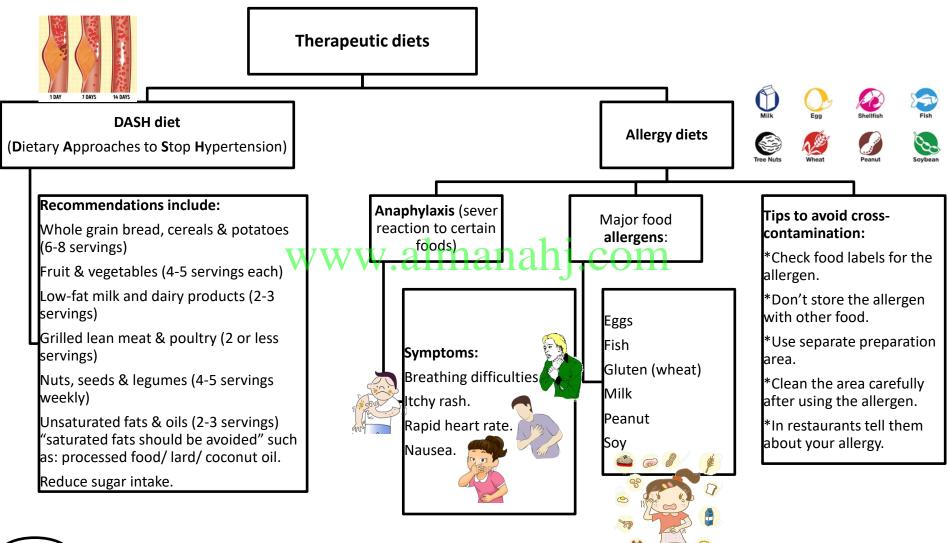
Before the person decides to lose weight they should consider the following:

Why do they want to lose weight? Are they ready to lose weight? How will they lose weight?

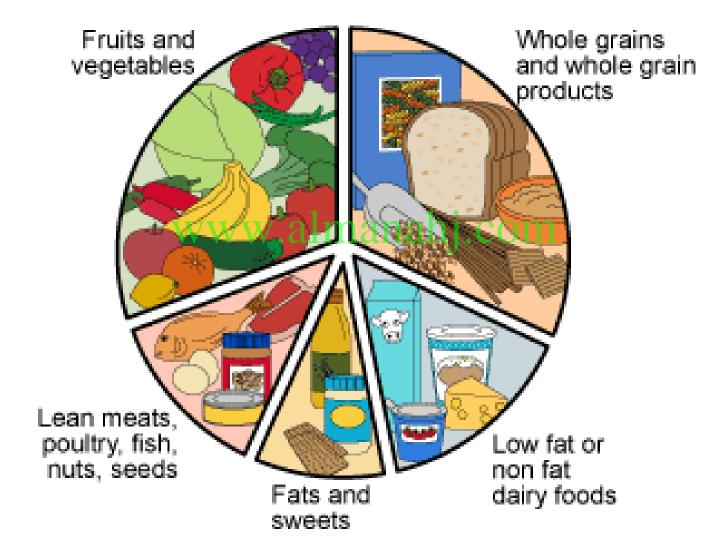
You can use the following model to help you lose weight:



Non-communicable disease	Diabetes	Heart disease	Renal disease	Bone disease
Definition and how it happens	Problems in producing "type1" or responding "type2" to insulin	When the arteries (coronary artery) are blocked with fatty layers (plaque/ cholesterol) which may lead to heart attack	Condition of the kidneys	Osteoporosis (weak/ brittle bones) and osteopenia
Controlling strategies and dietary recommendations	How to control blood glucose? 1) Eating healthy diet. 2) Do physical activities. 3) Take prescribed medication. 4) Check blood glucost When to measure blood glucose/ sugar? *Before: a meal/ exercise/ going to sleep. *Two hours after a meal. *Hyperglycemia (high blood sugar) hypoglycemia (low blood sugar. *Change in physical activity. Healthy eating guideline for diabetes: *Choose low-fat & low- sugar snack. *Choose wholegrain (fibers	which may lead to heart attack Dietary changes: *Cut down on saturated & trans fats. *Eat healthy fats (unsaturated) found in salmon/ trout/ mackerel/ nuts/ seeds/ avocados. *Reduce salt intake and processed food. (sodium increase blood pressure and harm the heart) *Eat plenty of fruit & vegetables. *Eat starchy food without adding fat to them they are full with fiber. *Potassium help to lower blood pressure.	Dietary guidelines: *Reduce protein intake. (too much protein means that the kidneys must work extra hard because of the byproducts they produce) *Increase simple sugar & vegetables fats intake to get enough calories. *Reduce potassium intake by <u>avoid eating</u> : Avocados Bananas Milk & dairy products Nuts & seeds Potatoes *DASH diet prevent the formation of kidney stones. *Reduce phosphorus intake.	Dietary guidelines: Take enough calcium + vitamin D Calcium sources: *Milk & dairy products (yoghurt/ cheese). *Dark green leafy vegetables. *Sardines with the bones. *Soy products. *Fortified foods like cereals. Vitamin D sources: *Sun *Eggs *Oily fish *Fortified foods
17	are good for digestion and keep you full for longer). *Eat whole fresh fruit & vegetables. Reduce sugar and saturated fat intake.	est of luck: Maitha Taleb Saeed		*Caffeine and carbonated sugary drink "soft/ fizzy drinks" (reduce Ca absorption) replace them with low-fat milk or water.



DASH Diet



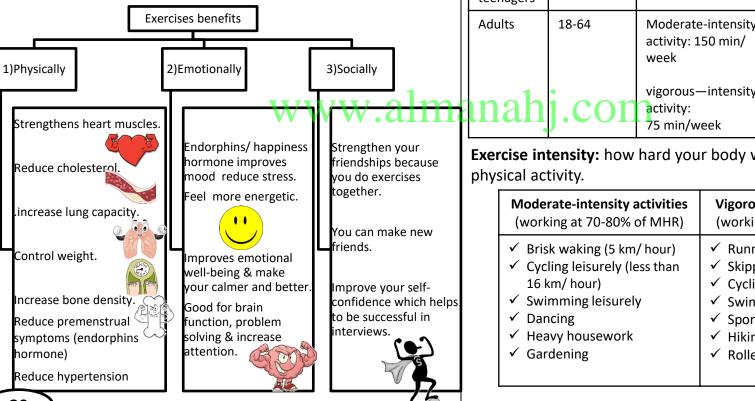
Unit6: Physical activity

Lesson1: The impact of physical activity on health and wellbeing

What is physical activity?

A movement that increases your heart rate from resting. **Physical activity examples:**

Brisk walking/ running/ sports/ housework/ gardening. What are the benefits of physical activities (exercises)?



Unit6: Physical activity Lesson2: How much physical activity and what type?

	How much physical activity?				
8	Category	Age range	Minimum time for exercises	Recommended time for extra health benefit	
	Children & teenagers	5-17	60 min/ day	More than 60 min/ day	
	Adults	18-64	Moderate-intensity activity: 150 min/ week	300 min/ week of moderate-intensity activity	
E	inah	j.con	vigorous—intensity activity: 75 min/week		

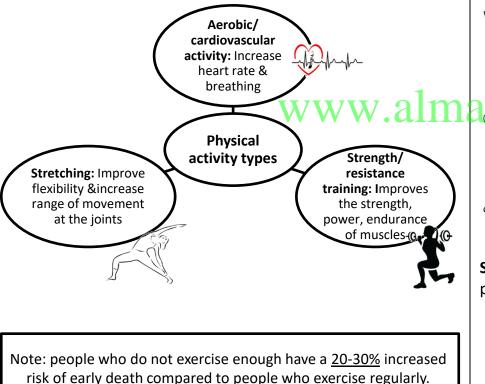
Exercise intensity: how hard your body works while doing

Moderate-intensity activities (working at 70-80% of MHR)	Vigorous-intensity activities (working at 80-85% of MHR)	
 ✓ Brisk waking (5 km/ hour) ✓ Cycling leisurely (less than 16 km/ hour) ✓ Swimming leisurely ✓ Dancing ✓ Heavy housework ✓ Gardening 	 ✓ Running ✓ Skipping ✓ Cycling (over 16 km/ hour) ✓ Swimming laps ✓ Sports ✓ Hiking ✓ Rollerblading 	

Unit6: Physical activity Lesson2: How much physical activity and what type?

How to calculate your Maximum Heart Rate (MHR)? 220 –(your age) = Beats Per Minute (BPM) Maximum heart rate: BPM

Different types of physical activity:

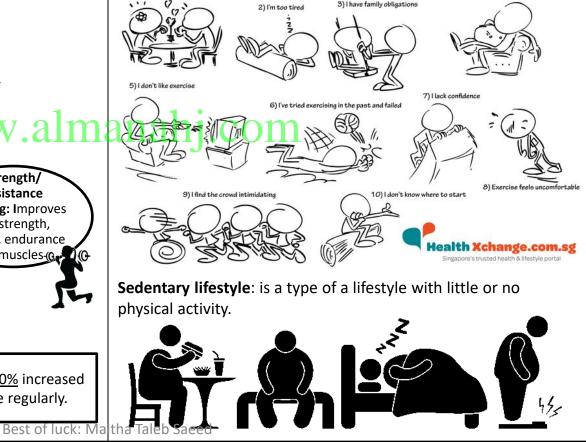


Unit6: Physical activity Lesson3: Barrier to physical activity

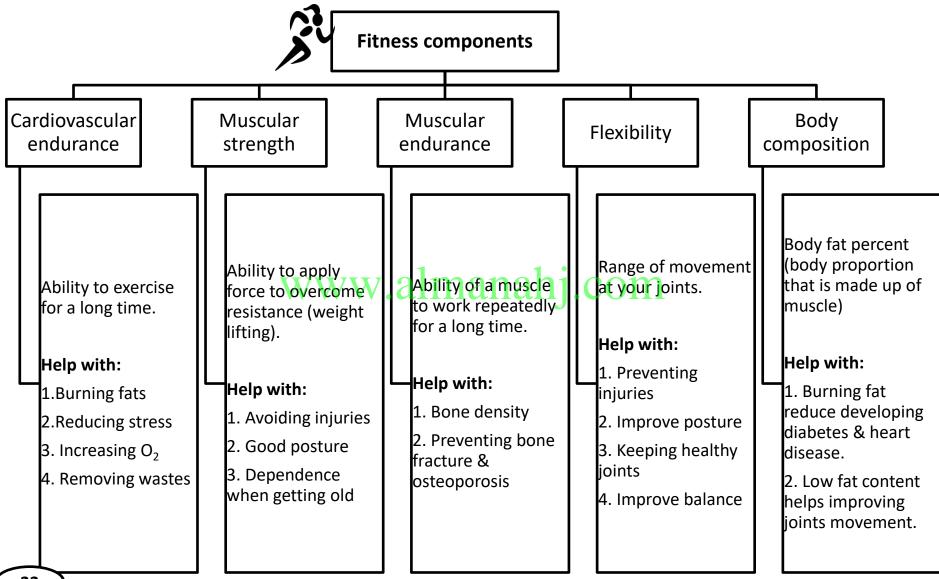
Why people do not exercise? (barrier: things that stop people from doing exercise)

4) I'm too lazy / I don't have the willpower

10 Common Barriers to Exercise



21



Activities you do while setting:









Unit9: First aid for infants and children Lesson4: Seizures in infants and children

Heat stroke

Metabolic

disorders

Seizure: involuntary movement of the muscles because of abnormal electrical activity in the brain.

Epilepsy

Seizures causes

Poisoning

Seizures signs

Fall to the

ground

Medication

Head injury

Jerking

movement of

limbs

Unresponsive

-ness

Seizure first aid:

- 1) Remove anything that may harm the victim during the seizure.
- 2) Do not hold them or try to stop them from having the seizure.
- 3) Put something soft under the victim's head.



- After the seizure: ✓ If the patient unresponsive and not breathing give CPR.
- ✓ If they have breathing difficulties check for obstruction.
- ✓ If they are vomiting put them into the "recovery position".





Lay the victim on his back and place the right hand next to the head.

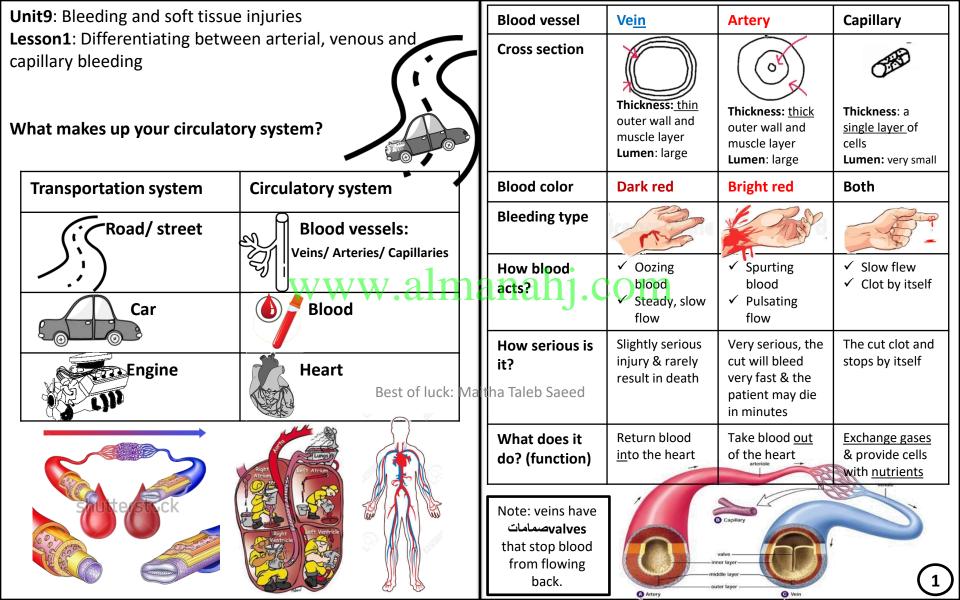


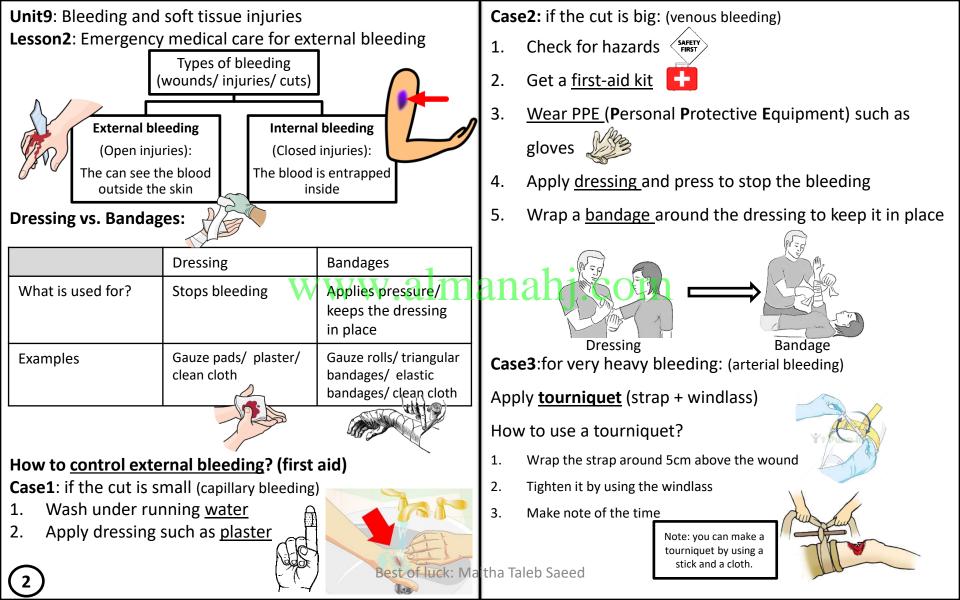
Hold the left shoulder and left leg and pull the body towards you, rolling the patient onto his side

Place the left hand on the right cheek



Rest the patient as shown, and move the head backwards slightly





Unit9: Bleeding and soft tissue injuries **Lesson3**: Internal bleeding

What are the signs for internal bleeding?

- 1. Pain at the injured site
- 2. Bruises
- 3. Paleness, clammy or sweaty skin
- 4. Swollen, tight abdomen
- 5. Nausea and vomiting
- 6. Coughing blood
- 7. Breathlessness

Internal bleeding first aid:

- 1. Check for hazards
- 2. Get first aid kit

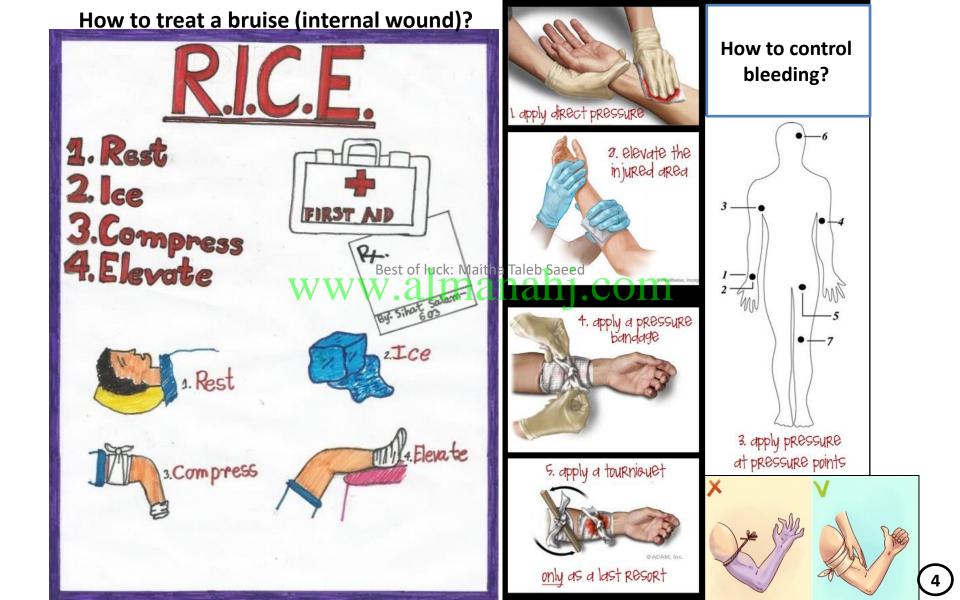
3. Wear PPE

- 4. Call the emergency (dial 999)
- 5. Get the victim to <u>lie down</u> and keep still
- 6. <u>Treat for shock (raise the person's legs and cover them)</u>
- 7. Give <u>CPR</u> if needed

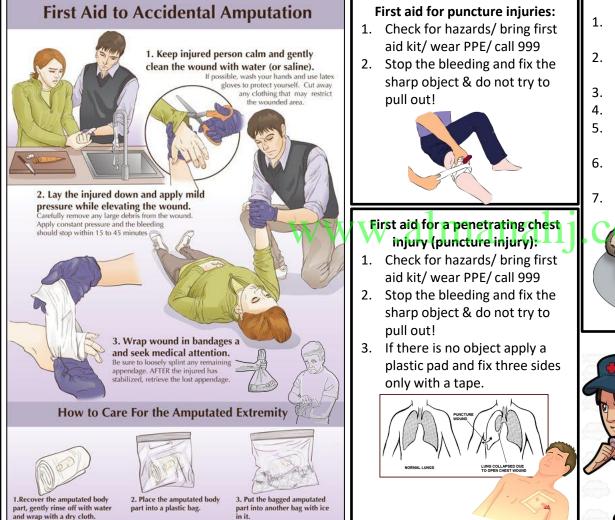


Unit9: Bleeding and soft tissue injuries **Lesson4**: Open soft injuries (the skin is torn)

	Category of soft tissue injury	Description/ definition	Types/ examples	Picture
	Abrasion کشط	Scraping/ grazing the skin on a rough surface	Knees/ elbow/ hands	
	Laceration تمزیق	Cut/ tear in the skin	If it is deep it may damage nerves & blood vessels	
) 8	Avulsion J.C	The tissue is torn away		
	Puncture وخز tha Taleb Saeed	Penetrating of flesh by sharp object such as: knife/ splinter	Perforated (if the object goes through the body & out the other side) Impaled (if the object stays in the body & sticking out)	
	Amputation بتر	Complete removal of tissue from the body	Limbs such as legs/ arm/ fingers	A.



DO NOT PLACE THE LOST PART ON ICE



First aid for an open wound to the abdomen:

- Check for hazards/ bring first aid kit/ wear PPE/ call 999
- 2. Put the patient in comfortable position on a flat surface with knees bent.
- 3. Loosen any tight clothes around the abdomen or neck.
- 4. Stop the bleeding by covering the wound.
- 5. With wide wound cover with a sterile dressing soaked with warm water.
- 6. If any internal organs are showing do not push them back in place.
- 7. Do not give the patient anything to eat or drink.





Unit9: Bleeding and soft tissue injuries **Lesson5**: burns and electrical injuries

What are burn causes?

Burning first aid:

Run cool water Cover the burn over area of with a sterile burn bandage **Burn causes:** Heat: Electricity Chemicals fire/ steam/ hot liquids/ hot surfaces/ sun **Types of burns** st de **Flame Burn Scald Burn** If the person's clothing catches on fire tell them to stop/ drop/ roll and cover them with a fire blanket. **Electric Burn** Drop Roll Stop Chemical Burn Best of luck: Matha Taleb Sae **Radiation Burn** 6

STOP the burning



Best of luck: Maitha Taleb Saeed

Cool with running water

Cool burned area with cool running water for up to 20 minutes, or until pain is less severe. Take off any jewelries and clothing that could be in the way. Do not attempt to peel any clothing that is stuck to the wound as this could cause the skin to tear. If running water is not available, use a damp cloth, wet towel, sponge or immerse in water. May drink analgesics for pain.

Minor burns with only redness and no blisters, can be treated with topical burn ointment or spray.

> Do not use to brice water, which can cause trusue damage. Do not apply butter, oil, toothpaste, lotion, ointment on a burn. because infection may occur and complicate the injury.

Cover the burn

Cover the burn with sterile material to protect from infection. Use a clean, dry dressing or plastic cling film wrap to cover the burn.

Do not use adhesive or fluffy dressings. Do not break blisters or remove peeled skin.

Call emergency assistant

For deep or extensive burns of any size, send the patient immediately to the hospital for further medical treatment.



BURNS



First Aid for burns



Strip hot clothes & jewellery.

Turn on cool tap (never use ice). Run burn under cool water for 10 minutes. Keep the rest of the person warm.

Organise medical assistance (999, A&E, GP).

Protect burn with cling film or

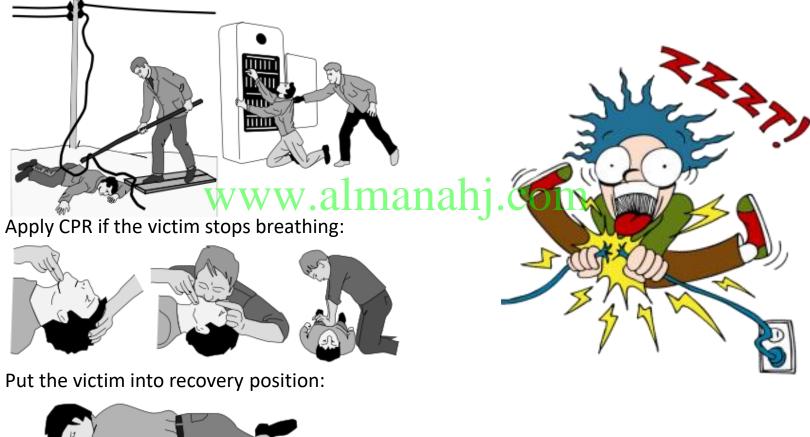
clean cloth (Do not use dressings, fluffy cloth, creams or lotions).





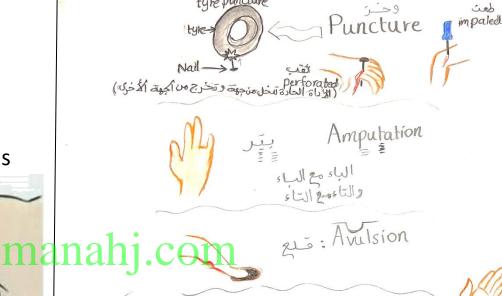


Electrical burn first aid: Check the environment and stop the current or take the victim into a safe place:



When to call emergency services for bleeding?

- 1) There is a lot of bleeding.
- 2) You can not stop bleeding.
- 3) The person is showing signs of shock.
- 4) Suspect head/ neck/ spine injury.
- 5) You do not know what to do.
- 6) The patient stopped breathing or there is no heart beats.



بنستر التاير tyre puncture

aceration وكنتى تمسكين بسكين قُطْع فينتبخ بالعادة جروح قطوية

Abrasion تعتشر/كشط grazing scraping sounds like

EN