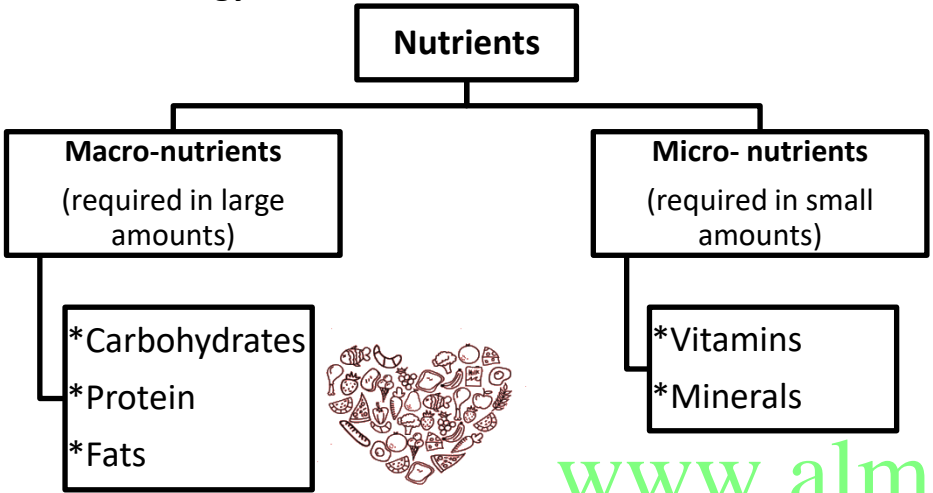


Unit5: Advanced nutrition

Lesson1: Energy and nutrient needs



What are the factors that controls our consumption of nutrients?

1. Age
2. Gender
3. Body size
4. Physical activity
5. Medical condition

Why do we need nutrients?

1. Provide energy
2. Help stay healthy & fight infection
3. Good for the brain to function
4. For growth, development & repair
5. Strengthen the immune system

Best of luck: Matha Taleb Saeed

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?

UAE Food Dome.



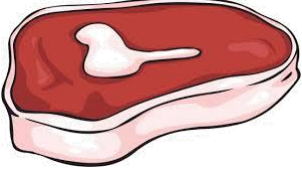



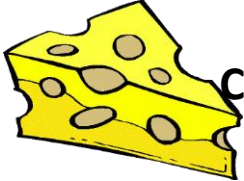



Main food groups	Main nutrients they provide
Fruit	Fiber/ vitamins/ minerals
Vegetables	
Cereals and their products	Carbohydrates/ fiber/ B vitamins
Milk and dairy products	Calcium
Meat, eggs and legumes	Protein/ iron
Fats	Omega3/ omega6

Healthy, active, adult women need 2000 Calories a day.

Tips/ guidelines for healthy eating:

- Eat variety of foods including fruit/ vegetables/ lean meat/ fish/ legumes/ cereals
- Reduce unsaturated fat intake
- Reduce sugar intake
- Reduce sault/ sodium intake
- Drink plenty of water
- Exercise regularly
- Keep a healthy BMI (Body Mass Index)



Food group	Item used to measure a serving size
 <p data-bbox="710 169 948 196">Milk/ pasta/ cereals</p>	 <p data-bbox="1348 229 1425 274">Cup</p>
 <p data-bbox="819 418 948 463">Meats</p>	 <p data-bbox="1348 418 1586 451">Palm of the hand</p>
 <p data-bbox="710 611 937 644">Butter/ fat spread</p>	 <p data-bbox="1348 651 1574 695">Plastic box</p>
 <p data-bbox="710 795 859 840">Cheese</p>	 <p data-bbox="1348 804 1586 848">Matches box</p>
 <p data-bbox="710 988 788 1033">Oils</p>	 <p data-bbox="1348 1000 1483 1045">Spoon</p>

FOOD DOME

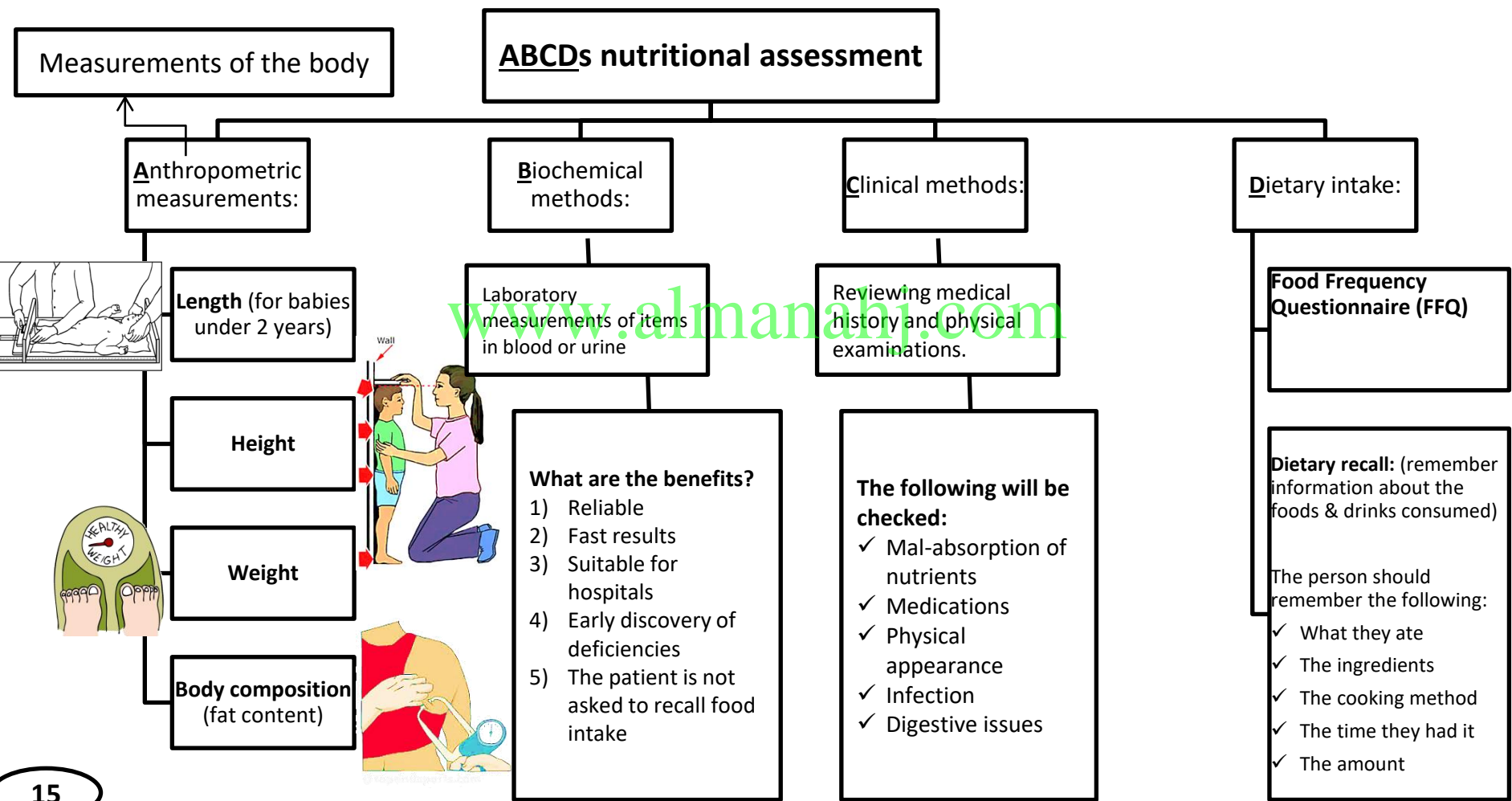
DIETARY GUIDELINES FOR ARAB COUNTRIES



www.almanahj.com
Practice medium activity like walking 30 minutes most days

Meat, eggs and legumes	Vegetables	Cereals and their products	Fruit	Milk and dairy products
<ul style="list-style-type: none"> Choose low fat or lean meat Consume legumes at least 3 times a week Consume more fish as possible 	<ul style="list-style-type: none"> Eat more dark green vegetables like spinach and orange vegetables like carrots 	<ul style="list-style-type: none"> Eat at least half of cereals of whole grain Eat more of fortified cereals and their products 	<ul style="list-style-type: none"> Eat variety of fruit Choose fruit during their seasons Drink fresh fruit juice 	<ul style="list-style-type: none"> 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	1 cup raw vegetables, ¾ cup vegetables juice	1 slice, ¼ Arabic bread, 30g cornflakes, ½ cup cooked cereals	1 medium piece of fruit, ¾ cup fruit juice	1 cup milk, 45g cheese, 1 tbs cream cheese

How to assess nutritional status?



Unit5: Advanced nutrition

Lesson3: Calculate body mass index (BMI)

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

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).



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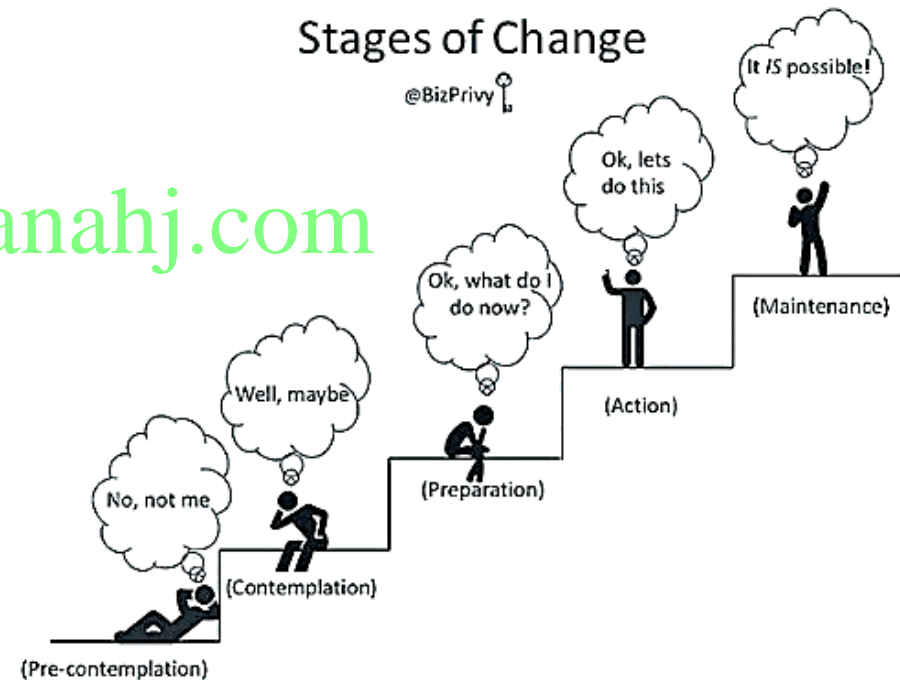
Before the person decides to lose weight they should consider the following:





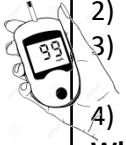
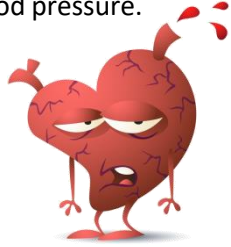
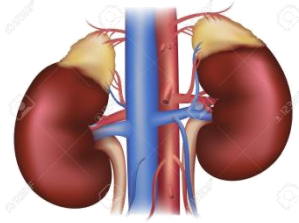
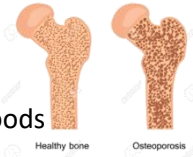
Why do they want to lose weight?

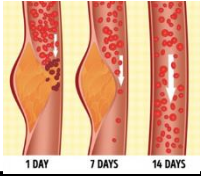
Are they ready to lose weight?

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 <div data-bbox="38 632 386 848" style="border: 1px solid black; padding: 5px;"> Unit5: Advanced nutrition Lesson4: Blood glucose monitoring and dietary advice for the management of diabetes mellitus, overweight and obesity </div>	How to control blood glucose? <ol style="list-style-type: none"> 1) Eating healthy diet. 2) Do physical activities. 3) Take prescribed medication.  4) Check blood glucose  When to measure blood glucose/ sugar? <ul style="list-style-type: none"> * 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: <ul style="list-style-type: none"> * Choose low-fat & low-sugar snack. * Choose wholegrain (fibers are good for digestion and keep you full for longer). * Eat whole fresh fruit & vegetables. Reduce sugar and saturated fat intake. 	Dietary changes: <ul style="list-style-type: none"> * 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: <ul style="list-style-type: none"> * 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>: <ul style="list-style-type: none"> ✗ Avocados ✗ Bananas ✗ Milk & dairy products ✗ Nuts & seeds ✗ Potatoes * DASH diet prevent the formation of kidney stones. * Reduce phosphorus intake. 	Dietary guidelines: <ul style="list-style-type: none"> Take enough calcium + vitamin D Calcium sources: <ul style="list-style-type: none"> * Milk & dairy products (yoghurt/ cheese). * Dark green leafy vegetables. * Sardines with the bones. * Soy products. * Fortified foods like cereals. Vitamin D sources: <ul style="list-style-type: none"> * Sun * Eggs * Oily fish * Fortified foods Avoid: <ul style="list-style-type: none"> * Caffeine and carbonated sugary drink "soft/ fizzy drinks" (reduce Ca absorption)... replace them with low-fat milk or water. 



Therapeutic diets



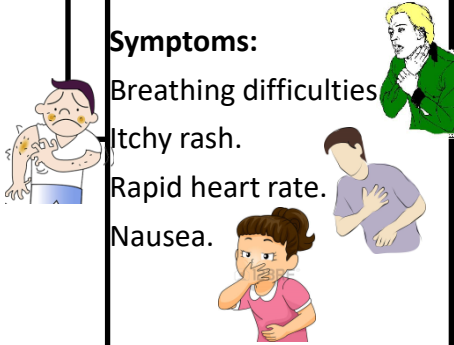
DASH diet (Dietary Approaches to Stop Hypertension)

Recommendations include:
 Whole grain bread, cereals & potatoes (6-8 servings)
 Fruit & vegetables (4-5 servings each)
 Low-fat milk and dairy products (2-3 servings)
 Grilled lean meat & poultry (2 or less servings)
 Nuts, seeds & legumes (4-5 servings weekly)
 Unsaturated fats & oils (2-3 servings)
 "saturated fats should be avoided" such as: processed food/ lard/ coconut oil.
 Reduce sugar intake.

Allergy diets

Anaphylaxis (severe reaction to certain foods)

Symptoms:
 Breathing difficulties
 Itchy rash.
 Rapid heart rate.
 Nausea.



Major food allergens:

Eggs
 Fish
 Gluten (wheat)
 Milk
 Peanut
 Soy



Tips to avoid cross-contamination:
 *Check food labels for the allergen.
 *Don't store the allergen with other food.
 *Use separate preparation area.
 *Clean the area carefully after using the allergen.
 *In restaurants tell them about your allergy.